FINAL ENVIRONMENTAL IMPACT REPORT
COMMENTS AND RESPONSES DOCUMENT
STATE CLEARINGHOUSE NO. 2013051029

IRWINDALE MATERIALS RECOVERY FACILITY AND TRANSFER STATION PROJECT

CITY OF IRWINDALE

LOS ANGELES COUNTY, CALIFORNIA

Prepared for:
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CHAPTER 1.0 - INTRODUCTION

1.0 INTRODUCTION

The City of Irwindale (City) has prepared this Final Environmental Impact Report (EIR) Response to Comments Document for the proposed *Irwindale Materials Recovery Facility and Transfer Station Project* (Proposed Project). The Final EIR is composed of the Draft EIR (DEIR), Recirculated Draft EIR (RDEIR) and appendices; and the Responses to Comments on both the DEIR and RDEIR. The administrative record also includes the Mitigation Monitoring and Reporting Program (MMRP); and the Findings, Staff Reports and Resolutions. This EIR was prepared in compliance with the California Environmental Quality Act (CEQA) of 1970 (as amended) [Public Resources Code §§21000-21178] and the 2015 State CEQA Guidelines [California Code of Regulations, Title 14, Chapter 3, §§15000-15387].

This document includes the comments and responses to the DEIR and RDEIR, revisions to the RDEIR, and the MMRP. The purpose of this document is to respond to all comments received by the City regarding the environmental information and analyses contained in the DEIR and RDEIR. Additionally, any corrections to the text and figures of the RDEIR generated either from responses to comments or independently by the City, are stated in this document.

By incorporation, the Final EIR also consists of:

- The Draft EIR and appendices (in its entirety), April 2014.
- The Recirculated Draft EIR and appendices (in its entirety), July 2014.
- Updated Traffic Impact Assessment (TIA), (March 2016) as an appendix.

After completion of the *Irwindale Materials Recovery Facility and Transfer Station Project* Recirculated Draft EIR, the City of Irwindale filed a Notice of Completion (NOC)/Notice of Availability (NOA) with the Governor's Office of Planning and Research, State Clearinghouse (SCH) on August 14, 2014 indicating that the Draft EIR was complete and available for review (State CEQA Guidelines §15085-15086 and §15105(a)).

The Recirculated Draft EIR was made available for public review and comment for a period of 45-days beginning on August 14, 2014 and ending on September 29, 2014. A copy of the SCH stamped NOA/NOC is on file with the City Planning Department.

Pursuant to State CEQA Guideline §15087, the City filed the NOA/NOC with the Los Angeles County Clerk on August 14, 2014. A copy of the County Clerk stamped NOA/NOC is on file with the City Planning Department.

The City of Irwindale mailed a copy of the NOA/NOC which noticed the Draft EIR 'as availability for review' to surrounding cities and Los Angeles county community development directors/planners, surrounding business owners and residents, and other interested agencies and individuals. The EIR Notification List is provided in Appendix B of the RDEIR.

The Recirculated Draft EIR was made available on the City's website at: http://www.ci.irwindale.ca.us/. In addition, both hardcopies and CD copies of the Recirculated Draft EIR were made available for review at the City of Irwindale City Hall, City Clerk's office and the Irwindale Public Library located at 5050 North Irwindale Avenue, Irwindale, California 91706.

The City received a total of 39 comment letters [15 written comment letters were received on the Draft EIR, 22 comment letters received on the Recirculated Draft within the comment period, and 2 additional letters that were submitted after the comment period was closed]. All 39 letters have been responded to within this document. All written comment letters received by the City were assigned a number (e.g., Letter 1, Letter 2, etc.) as indicated in the table below. Each comment within the comment letter was assigned an identifying number (e.g., Comment 1-1, Comment 1-2, etc.). The comment number(s) are provided on the right column of each comment letter. **Table 1** and **Table 2** below list each comment letter received with the associated number it has been assigned.

Table 1
Irwindale Materials Recovery Facility and Transfer Station Project
Draft EIR Commenting Agencies and Individuals

Letter Number	Agency / Individual
1.	Governor's Office of Planning and Research State, Clearinghouse and Planning Unit
2.	California Department of Transportation
3.	California Department of Resources Recycling and Recovery
4.	County Sanitation Districts of Los Angeles County
5.	County of Los Angeles Department of Public Works
6.	County of Los Angeles Public Health
7.	Los Angeles County Department of Parks and Recreation

8.	Los Angeles County Solid Waste Management Committee / Integrated Water Management Task Force
9.	Valley County Water District
10.	City of Duarte
11.	City of Baldwin Park (ESA)
12.	Los Angeles Alliance for a New Economy
13.	Azusa Land Reclamation, Inc. and USA Waste of California, Inc. (Remy Moose Manley LLP)
14.	Jim & Bette Lowes
15.	Jane & John Maquire

Table 2

Irwindale Materials Recovery Facility and Transfer Station Project
Recirculated Draft EIR Commenting Agencies and Individuals

Letter Number	Agency / Individual
16.	Governor's Office of Planning and Research State, Clearinghouse and Planning Unit
17.	California Department of Resources Recycling and Recovery
18.	California Department of Transportation
19.	South Coast Air Quality Management District
20.	Valley County Water District letter 1
21.	Valley County Water District letter 2
22.	Los Angeles County Solid Water Management Committee
23.	County of Los Angeles Public Health
24.	City of Azusa

25.	City of Baldwin Park (ESA)
26.	City of Covina
27.	City of Duarte
28.	Azusa Land Reclamation, Inc. and USA Waste of California, Inc. (Remy Moose Manley LLP)
29.	Los Angeles Alliance for a New Economy
30.	Baldwin Park citizens group letter 1
31.	Baldwin Park citizens group letter 2
32.	Bella Hernandez
33.	Jim and Betty Lowes
34.	Paul Lin
35.	Raul Navarro
36.	Gerry Sigala
37.	Arango Family
38.	Azusa Land Reclamation, Inc. and USA Waste of California, Inc. (Remy Moose Manley LLP)
39.	Azusa Land Reclamation, Inc. and USA Waste of California, Inc. (Remy Moose Manley LLP)

Written responses to comments are provided herein. As necessary, and in response to comments received, revisions to the text in the body of EIR are also documented.

The Response to Comments Document incorporated suggestions from comments on the RDEIR into minor edits and clarifications to recommended mitigation measures. **Table ES-2** of the RDEIR (Potentially Significant Effects and Mitigation Program) has been revised to show changes to the mitigation measures that were incorporated by the Response to Comments Document. Revisions are shown in <u>underline</u> for additions and ~~strikethrough~~ for deletions. Revisions have been incorporated into five of the mitigation measures in the RDEIR (AQ-1, AQ-8, AQ-16, AQ-17, AQ-18). The revised **Table ES-2** is included at the end of this chapter.

The updated TIA was prepared in part in response to comments received on the DEIR and RDEIR, and to include additional projects in the cumulative effects evaluation. The TIA confirms the findings of potential traffic impacts for the proposed MRF/TS project, and confirms that the traffic mitigation measures T-1 and T-2 are suitable and adequate as mitigation for the Proposed Project's potential impacts at the Live Oak Avenue / Interstate 605 ramp. Although the TIA and supporting model output is lengthy, it does not constitute significant new information because it does not conclude with any changes to a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid any such substantial effect; (CEQA Guidelines §15088.5).

The City of Irwindale City Council intends to hold a public hearing to consider the adoption of the *Irwindale Materials Recovery Facility and Transfer Station Project* Final EIR on April 27, 2016 at the Irwindale City Council Chambers located at 5050 North Irwindale Avenue, in the City of Irwindale. Individual responses to agency comments have been sent to each of the commenting agencies 10 days prior (April 15, 2016) to the City Council public hearing for consideration of certification of the Final EIR.

POINT OF CONTACT

The Lead Agency for this Proposed Project is the City of Irwindale. Questions or comments on this Final EIR should be directed to the attention of:

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Irwindale, California 91706
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FINAL EIR

Pursuant to State CEQA Guideline §15132, this Final EIR consists of:

- The Draft EIR;
- Comments and recommendations received on the Draft EIR;
- The Recirculated Draft EIR;
- Comments and recommendations received on the Recirculated Draft EIR;
- A list of persons, organizations and public agencies commenting on the Draft EIR and Recirculated Draft EIR;
- The response of the Lead Agency to significant environmental points raised on the review and consultation process; and

- Any other information added by the Lead Agency.

PROJECT SUMMARY

The following information is summarized from the Project Description in the RDEIR. For additional detail regarding Proposed Project details and related improvements, and analyses of the Proposed Project's potential environmental impacts, please refer to the RDEIR chapters 2.0, 3.0 and 4.0 respectively.

The *Irwindale Materials Recovery Facility and Transfer Station Project* (Proposed Project or MRF/TS) includes the development and operation of a materials recovery facility and transfer station, and convenience store/fueling station. The Proposed Project site is addressed as 2200 Arrow Highway, and located at the northwestern intersection of Live Oak Avenue and Arrow Highway, within the City of Irwindale, in eastern Los Angeles County, California.

The City encompasses approximately 9.5 square miles within the San Gabriel Valley and is located approximately 20 miles east of downtown Los Angeles. The City of Irwindale shares boundaries with seven neighboring municipalities, including Duarte (to the north and west), Azusa (to the north and east), West Covina (to the southeast), Baldwin Park (to the south), Monrovia (to the southwest and northwest), El Monte (to the southwest), and Arcadia (to the west).

The Proposed Project site is approximately 17.22 acres (Assessor's Parcel Number 8535-001-911); and is currently zoned for Heavy Manufacturing and is designated for commercial land use in the City's General Plan. The site is located in an existing industrial area, with various commercial/industrial, residential, and recreational land uses in surrounding areas. Existing land uses that currently surround the site include a mixture of commercial and industrial to the west, east, and south, recreation/open space to the north, and residential to the south [beyond the commercial/industrial districts in the City of Baldwin Park].

Athens Services (Applicant/Operator) has submitted an application to the City to construct and operate a materials recovery facility and transfer station, with a fueling facility/convenience store, together comprising the "Proposed Project" as referred to throughout this EIR document.

The Proposed Project will require the following discretionary approvals by the City:

- General Plan Amendment (from commercial to commercial/industrial land use);
- Zoning Ordinance Amendment (to allow a MRF/TS use as a permitted land use in the M-2 zone with approval of a development agreement, and to revise the distance requirements for the sale of alcoholic beverages);

- Conditional Use Permit (required for the approval of the sale of alcoholic beverages in the proposed convenience store and for the gas station);
- Site Plan and Design Review Permit;
- Development Agreement pursuant to Government Code §§65864, et seq.;
- Sale/Disposition and Development Agreement; and
- Franchise and Facility Operations Agreement.

A MRF/TS is a regional facility where residential, commercial, and/or industrial municipal solid waste and recyclable materials are delivered by commercial and non-commercial haulers, and sorted and processed in one central location prior to delivery at end use distributors. The proposed MRF/TS consists of a fully enclosed building with the interior designed to provide separate areas to receive, process, and transfer mixed municipal solid waste (MSW), green waste, construction and demolition (C&D) materials, and waste hauled in by self-haulers. MRF/TS operations would consist of sorting, consolidating, and compacting received materials, and then re-loading all material into transfer trucks for transport to additional processing and/or disposal facilities (end use distributors).

The MRF/TS facility would be designed to receive, process and transfer up to a maximum of 6,000 tons per day (tpd), based upon estimated averages of 3,000 tpd of municipal solid waste, 1,000 tpd of green waste, 1,000 tpd of construction & demolition materials, and 1,000 tpd of self-haul waste. Actual processing volume of each type of material per day could exceed these estimated averages and will depend on market factors and seasonal variations, but in no event will exceed 6,000 tpd in the aggregate. The overall volume of 6,000 tpd is based upon anticipated future market demand, which will be shaped in part by Athens' ability to competitively serve new communities in the San Gabriel / Los Angeles region.

Hazardous wastes are prohibited at the MRF/TS. Only non-hazardous solid waste and non-hazardous recyclables are accepted at MSW transfer station sites. In addition to the MRF/TS, on-site improvements include operations offices, administrative offices and visitor center, maintenance facility, scale houses, and a fueling facility/convenience store open to the public. The fueling facility/convenience store would be a separate structure located in the southeastern portion of the site adjacent to Arrow Highway and includes a fueling island with pump canopy, convenience store, and parking for customers. Administrative offices, a visitor's center, and equipment maintenance facilities will be housed in a building located along Arrow Highway and to the east of the MRF/TS building. The equipment maintenance portion of the building will provide areas for maintenance of the transfer trucks and heavy equipment servicing the facility. The maintenance area will contain maintenance bays, a wash bay, and storage.

The primary elements of the Proposed Project would be constructed in a single phase, including perimeter fencing and landscaping, site paving and main buildings. The City acknowledges that

the MRF/TS building may be built out incrementally in response to waste handling capacity over a period of years. The schedule for the construction of the MRF/TS and fueling facility/convenience store at the site is estimated to require 18 months and to be completed in late 2017 to early 2018.

PROJECT VARIANT

During the time of preparation of the DEIR and RDEIR, the Valley County Water District (VCWD) had expressed interest in acquiring 1.9 acres of the southeastern corner of the site for placement of two water storage tanks. In response, the DEIR and RDEIR included a "Project Variant" describing an altered Project site layout in the event that VCWD did acquire the 1.9 acres. Since that time, VCWD has withdrawn its interest in the parcel, and the final Site Plan has been slightly modified to include a shift of the fueling facility/convenience store to that portion of the site; (see **Figure 1** below). The modified Site Plan does not change the type of use or intensity of use of any aspect of the Proposed Project, and simply shifts the footprint of the fueling facility/convenience store internally within the Proposed Project site. Therefore, it does not constitute significant new information because it does not cause any changes to findings of substantial adverse environmental effects of the Proposed Project or any requirement for additional mitigation of any such substantial effect; (CEQA Guidelines §15088.5).

Figure 1 Revised Site Plan

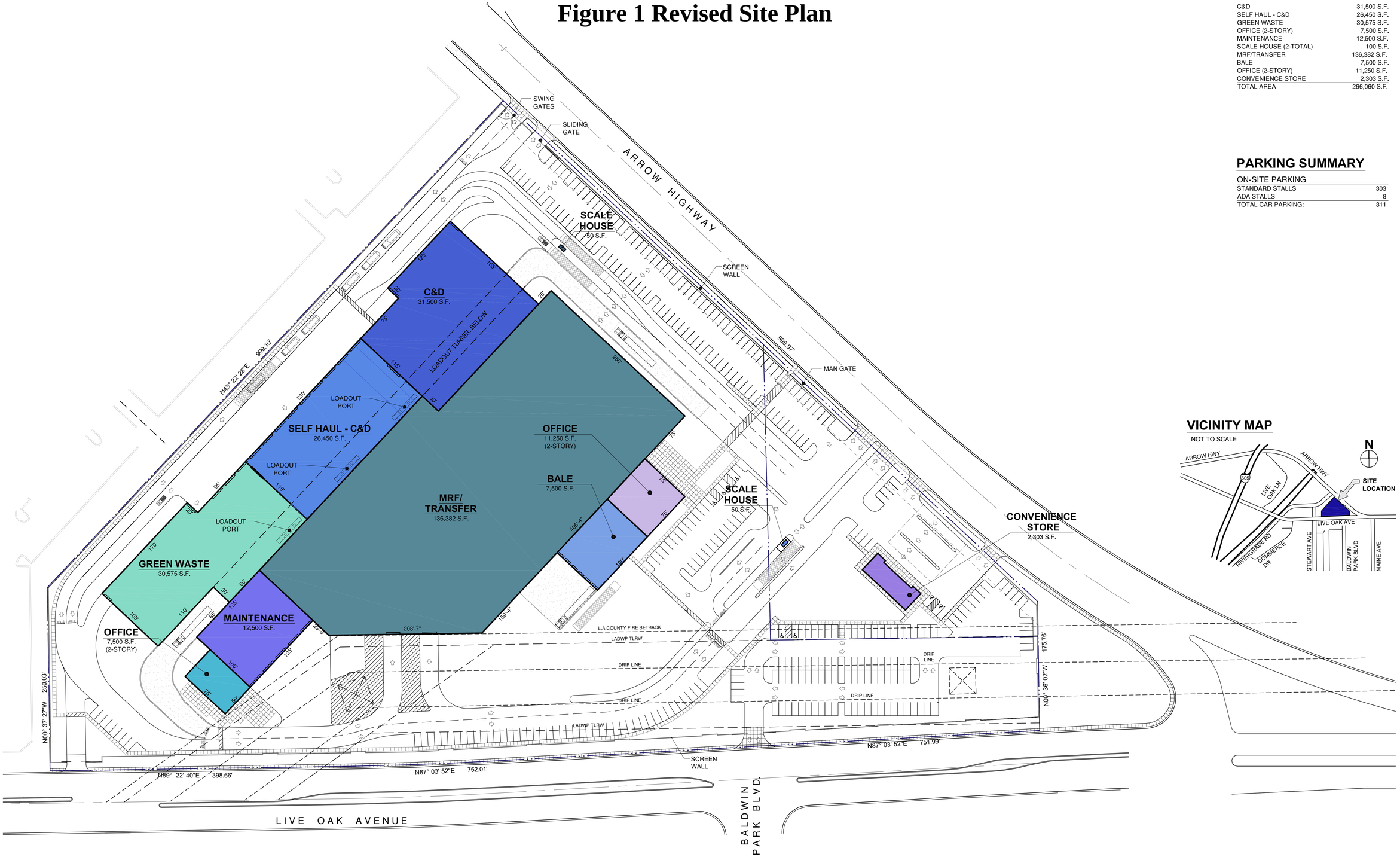
BUILDING SUMMARY

C&D	31,500 S.F.
SELF HAUL - C&D	26,450 S.F.
GREEN WASTE	30,575 S.F.
OFFICE (2-STORY)	7,500 S.F.
MAINTENANCE	12,500 S.F.
SCALE HOUSE (2-TOTAL)	100 S.F.
MRF/TRANSFER	136,382 S.F.
BALE	7,500 S.F.
OFFICE (2-STORY)	11,250 S.F.
CONVENIENCE STORE	2,303 S.F.
TOTAL AREA	266,060 S.F.

PARKING SUMMARY

ON-SITE PARKING

STANDARD STALLS	303
ADA STALLS	8
TOTAL CAR PARKING:	311



VICINITY MAP

NOT TO SCALE

SCALE: 1"=50'-0"

0' 25' 50' 100' 200'

TRUE NORTH

REFERENCE NORTH

ATHENS-IRWINDALE
Material Recovery Facility and Transfer Station

PHASE 2 - CONCEPTUAL SITE PLAN

JRM J&A ARCHITECTS ENGINEERS PLANNERS

JOB #3955

ARROW HIGHWAY
IRWINDALE, CA

29 OCTOBER 2015

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CHAPTER 1.0 - INTRODUCTION

STATEMENT OF OBJECTIVES

The City of Irwindale has identified the following list of criteria as the objectives for the *Irwindale Materials Recovery Facility and Transfer Station.*

- The City of Irwindale seeks long term economic development that provides a range of employment opportunities to local citizens.

- The City desires current and ongoing economic development of underutilized City-owned property, including lands that have been targeted for redevelopment.[1]

- Assembly Bill 341 [2011] sets a 75% recycling goal for California by 2020; therefore, the City of Irwindale seeks to achieve and surpass waste reduction and diversion goals and mandates, by providing additional processing capacity to increase diversion of recyclable commodities from the mixed municipal waste stream, thereby reducing the consumption of landfill capacity and prolonging the operational period of the region's current permitted landfill capacity.

- Provide a state-of-the-art waste processing and transfer facility that minimizes environmental impacts to the extent feasible.

- Construct the facility at a location with nearby Interstate access for both ingress and egress and which minimizes the traffic on local communities, and on the regional transportation network.

- Provide a disposal outlet accessible to local waste haulers during non-peak traffic hours with a goal to reduce traffic loading to area roads during peak hours.

In addition, the applicant, Athens Services, has stated its project objectives for the *Irwindale Materials Recovery Facility and Transfer Station* as:

- Maximize the ability to receive, process and consolidate, for efficient transfer and disposal, municipal solid waste within the San Gabriel Valley; thereby reducing regional vehicle miles traveled by trash collection trucks to the maximum extent feasible.

- Implement a state-of-the art fully enclosed MRF/TS within City limits that reduces environmental impacts through project design (including noise, odors and air emissions)

[1] This goal was and is considered by the City to be implicit in the City's planning and pursuit of the Project to pursue economic development and create jobs and revenues in the near future, and has been added in response to comments received on the Draft EIR that highlighted the need to explicitly state this goal.

and provides environmental benefits by facilitating consolidation of refuse loads and transfer to other regional landfill sites while diverting recyclable materials for transfer to recyclables processing facilities.

- Provide state-of-the-art recycling methods, cost-effective disposal, and MRF/TS services that will assist Los Angeles County and cities within the County to achieve local and state mandated waste diversion goals, including those set forth in the California Integrated Waste Management Act of 1989, and which further the Recycling and Waste/ High Recycling Recommended Actions contained within CARB's Climate Change Scoping Plan (2008).

- Provide expanded capacity to divert and process green and wood waste generated in the San Gabriel Valley in order to promote increased recycling of such materials, and diversion from landfills, consistent with the City, County, and State goals.

CHAPTER 1.0 - INTRODUCTION

INTENDED USES OF THE EIR

The City of Irwindale is the Lead Agency for the preparation of this EIR and has jurisdiction for the discretionary approval of the Proposed Project. The EIR is expected to be used for the following purposes:

- To inform the public, decision-makers, elected officials and other stakeholders regarding the Proposed Project;
- To disclose to the public, decision-makers, elected officials and other stakeholders the potential environmental effects associated with short-term construction and long-term operation of the Proposed Project, and to solicit input on the potential environmental effects;
- To identify ways to avoid or minimize potential environmental effects of the Proposed Project and evaluate alternatives to the proposed action(s);
- To provide the Irwindale Planning Commission, and Irwindale City Council and the Successor Agency to the former Irwindale Community Redevelopment Agency with a technically and legally adequate environmental document to be used as one basis for their decision-making process for the Proposed Project; and to provide regulatory agencies with information necessary to determine if they have responsible agency jurisdiction over the Proposed Project and, if so, to identify project permitting requirements.

The City of Irwindale has discretionary approval of the following items for construction and operation of the *Irwindale Materials Recovery Facility and Transfer Station Project*, which may include but are not limited to:

Environmental Review
The City's environmental review process for an EIR requires the Planning Commission's recommendation to the City Council for project approval or denial and possible certification of the EIR.

General Plan Amendment No. 1-2008
The General Plan Amendment is required to change the land use designation from Regional Commercial to Commercial/Industrial so that both commercial and industrial development uses are allowed.

Zoning Ordinance Amendment No. 4-2008
The Zoning Code Amendment is required to revise the distance requirement for alcohol sales (Section 17.58.040), and to allow a MRF/TS in the M-2 zone with approval of a Development Agreement.

Site Plan & Design Review Permit No. 4-2008

A Site Plan and Design Review Permit is required for consistency analysis with the City of Irwindale Commercial and Industrial Design Guidelines.

Conditional Use Permit No. 12-2008
A Conditional Use Permit is required for the approval of alcohol sales at the proposed convenience store, unless otherwise covered by the Development Agreement.

Development Agreement No. 1-2008
The Development Agreement is an assurance that a developer may proceed with a project in accordance with existing policies, rules and regulations and subject to certain conditions of approval. The Development Agreement assures some additional benefit to the public in exchange for the vested rights granted under the agreement. The Development Agreement will also allow for the following:

- Allow construction and operation of a MRF/TS in the M-2 zone, subject to the approval of a Development Agreement;
- Provide specific standards for a MRF/TS; and
- Allow construction and operation of a gas station/convenience store if it is part of a larger development project.

Disposition and Development Agreement, or other disposition document
The Disposition and Development Agreement defines the financial and development responsibilities of both the City and Applicant in carrying out the Proposed Project, and describes the process for sale of the site (currently owned by the Successor Agency), and which is subject to the approval by the State Department of Finance.

Franchise and Facility Operations Agreement
The Franchise and Facility Operations Agreement establishes the terms by which the City will grant a franchise to Athens for the exclusive operation of a MRF/TS within City limits and governs how Athens will operate the Facility and its appurtenant uses and maintain the Site.

In addition to the above approvals and entitlements, the City may require a rezone, and an additional text amendment to allow the proposed use at the Proposed Project site, including by way of a Development Agreement.

Table 2-6 Proposed Project Approvals/Agreements/Permits from the RDEIR shown below lists the anticipated entitlement approvals, agreements and/or permits for the Proposed Project. Project construction and/or operation may be subject to the review and/or approval of several agencies.

Table 2-6 Proposed Project Approvals / Agreements / Permits

AGENCY	APPROVAL / AGREEMENT / PERMIT
City of Irwindale	General Plan Amendment; Zoning Ordinance Amendment; Site Plan and Design Review Permit; Conditional Use Permit; Development Agreement; Disposition and Development Agreement; Franchise and Facility Operations Agreement; Storm Water Pollution Prevention Plan; and Standard Urban Storm Water Mitigation Plan
Los Angeles County Department of Public Works	Building, Plumbing, Electrical, Industrial Wastewater Disposal, and Underground Storage Tanks containing hazardous substances permits
Los Angeles County Public Health Solid Waste Management Program (acting as the Local Enforcement Agency [LEA]) in conjunction with the California Department of Resources Recycling and Recovery (CalRecycle);	Solid Waste Facility Permit, Tire Hauler Permit[2]
Los Angeles County Sanitation District	Industrial Waste Water Discharge Permit
South Coast Air Quality Management District (East San Gabriel Valley)	Permits to construct and operate odor control devices, and gasoline dispensers
California Department of Industrial Relations, Division of Occupational Safety and Health	Work area design approval and compressor air tank permits
California Department of Conservation, Division of Recycling	Beverage container recycling certifications
California Environmental Protection Agency, Division of Toxic Substance Control	Hazardous Waste Handler Identification Number, hazardous waste generator/hauler permits, electronic waste handler/hauler permit[3]
California Department of Food and Agriculture Division of Measurement Standards	Weighmaster license
California Department of Transportation (District 7)	Biannual inspection of truck terminals

[2] Required for incidental use on-site
[3] Required for incidental hazardous waste that enters the site

California State Water Resources Control Board, Regional Water Quality Control Board (Los Angeles Region 4)	Waste Discharge Identification Number in compliance with the National Pollution Discharge Elimination System, and Storm Water Pollution Prevention Plan
Southern California Edison	Access right over underground easement along Arrow Highway
United States Army Corp of Engineers	Access easement along Arrow Highway
Los Angeles Department of Water and Power	Access under transmission easement parallel to Live Oak Avenue

Table ES-2 Potentially Significant Effects and Mitigation Program
Irwindale Materials Recovery Facility and Transfer Station EIR

Potentially Significant Effects	Proposed Mitigation Measures	Level of Impact After Mitigation
3.2 Aesthetics		
No significant or potential significant aesthetic impacts from either construction or operational activities are anticipated with implementation of the Proposed Project.	No mitigation measures relative to this resource topic are proposed or required.	No impact.
3.3 Air Quality / Greenhouse Gas / Odor / Health Risk Assessment		
Air emissions attributable to construction activities are potentially significant, including vehicle emissions, construction equipment, and building coatings. Mitigation measures MM AQ-1 through AQ-11 are recommended to mitigate these potential effects.	**MM AQ-1** In order to offset potential impacts that could occur without compliance with Rules 402 and 403, the City shall ensure the Proposed Project adheres to the provisions of SCAQMD Rules 402 and 403 regarding construction-related fugitive dust control by implementing a dust control program pursuant to the provisions of SCAQMD Rules 402 and 403. The Applicant shall ensure that contractors implement a fugitive dust control program pursuant to the provisions of SCAQMD Rules 402 and 403. This program shall include, but not limited to the following: • Prior to issuance of any grading permit, the City Engineer and Senior Building Inspector shall confirm that the grading plan and building plans stipulate that, in compliance with SCAQMD Rule 403, fugitive dust shall be controlled by the applicable best available control	Less than significant with mitigation for construction impacts. Unavoidable significant regional air quality impacts from Project operations, and for contribution to cumulative impacts of criteria pollutants.

Table ES-2 Potentially Significant Effects and Mitigation Program *Irwindale Materials Recovery Facility and Transfer Station EIR*		
Potentially Significant Effects	**Proposed Mitigation Measures**	**Level of Impact After Mitigation**
	measures listed in Table 1 of Rule 403. • Water or a stabilizing agent shall be applied at least three times daily, preferably in the mid-morning, afternoon, and after work is done for the day, to exposed surfaces including graded and disturbed areas in sufficient quantity to prevent generation of dust plumes. • Track-out shall not extend 25 feet or more from an active operation and track-out shall be removed at the conclusion of each workday. The contractor shall use a gravel apron, 25 feet long by road width, or a pipe-grid track-out control device to reduce mud/dirt track-out from active operations and unpaved truck exit routes. • A wheel washing system shall be installed and used to remove bulk material from tires and vehicle undercarriages before vehicles exit the project site. • All trucks hauling dirt, sand, soil, or other loose materials are to be tarped with a fabric cover and maintain a freeboard height of 12 inches. • Traffic speeds on unpaved roads shall be limited to 15 miles per hour. • Operations on unpaved surfaces shall be suspended when winds exceed 25 miles per hour. • On-site stock piles shall be covered or watered at least twice per day.	

Table ES-2 Potentially Significant Effects and Mitigation Program *Irwindale Materials Recovery Facility and Transfer Station EIR*		
Potentially Significant Effects	**Proposed Mitigation Measures**	**Level of Impact After Mitigation**
	• The Applicant shall use street sweepers (using reclaimed water if available) that comply with SCAQMD Rules 1186 and 1186.1. **MM AQ-2** The Applicant shall ensure that construction equipment is properly tuned and maintained in accordance with manufacturer's specifications to ensure minimum emissions under normal operations. **MM AQ-3** Electricity from power poles rather than temporary diesel- or gasoline-powered generators shall be used, where available. **MM AQ-4** Heavy-duty diesel trucks shall be properly tuned and maintained to manufacturers' specifications to ensure minimum emissions under normal operations. **MM AQ-5** Heavy equipment operations shall be discontinued during first and second stage smog alerts **MM AQ-6** The use of 2010 model or newer construction equipment shall be required, where feasible. **MM AQ-7**	

Table ES-2 Potentially Significant Effects and Mitigation Program *Irwindale Materials Recovery Facility and Transfer Station EIR*		
Potentially Significant Effects	**Proposed Mitigation Measures**	**Level of Impact After Mitigation**
	Older (prior to 2010 model year) construction equipment shall be retrofitted with appropriate emission control devices (Tier 2 or better) prior to onsite use. **MM AQ-8** Prior to commencement of operations, ~~T~~the Applicant ~~project~~ shall develop a plan demonstrating that the off-road equipment (more than 50 horsepower) to be used in the construction project (i.e., owned, leased, and subcontractor vehicles) would achieve a project wide fleet-average 20 percent NO_x reduction and 85 percent PM reduction compared to the most recent CARB fleet average (i.e., Tier 2 equipment or better). Acceptable options for reducing emissions include the use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, add-on devices such as particulate filters, and/or other options as such are available. **MM AQ-9** All construction vehicles, both on- and off-site, and construction equipment idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations). The construction contractor shall post visible signage within construction equipment operator components notifying equipment operators of the prohibiting against idling in excess of five minutes. The construction contractor shall provide awareness training to equipment operators regarding idling limits. **MM AQ-10** Contractors shall use varying-pressure-low-volume paint applicators or other	

Table ES-2 Potentially Significant Effects and Mitigation Program
Irwindale Materials Recovery Facility and Transfer Station EIR

Potentially Significant Effects	Proposed Mitigation Measures	Level of Impact After Mitigation
	application techniques with equivalent or higher transfer efficiency. **MM AQ-11** Use super compliant VOC (and ROG) coatings for all architectural applications. (Rule 1113 of the SCAQMD established a schedule of VOC limits for architectural coatings. However, many manufacturers have reformulated their coatings to levels well below these limits. These are referred to as "Super-Compliant" and contain less than 10 grams of VOC per liter.)	
Air emissions of ROG and NOx attributable to project operations are potentially significant, including heavy duty vehicle emissions, on-site machinery and equipment, employee and convenience store traffic and related vehicle trips. Mitigation measures MM AQ-12 through AQ-18 are recommended to mitigate these potential effects.	**MM AQ-12** Applicant shall properly maintain ROG emission control devices within the gasoline dispensing station pursuant to SCAQMD Rule 461. **MM AQ-13** All gasoline dispensing facilities shall meet the requirements of SCAQMD's Rule 461 to limit ROG emissions from gasoline dispensing facilities, including but not limited to using CARB-certified vapor recovery systems and spill boxes and periodic testing of the equipment. **MM AQ-14** Heavy-duty diesel trucks shall be properly tuned and maintained to manufacturers' specifications to ensure minimum emissions under normal operations.	Unavoidable significant regional air quality impacts from Project operation, and cumulative impacts of criteria pollutants.

Table ES-2 Potentially Significant Effects and Mitigation Program
Irwindale Materials Recovery Facility and Transfer Station EIR

Potentially Significant Effects	Proposed Mitigation Measures	Level of Impact After Mitigation
	MM AQ-15 The use of 2010 model or newer transfer trucks shall be required whenever older vehicles are replaced or upgraded, per SCAQMD Rule 1193. **MM AQ-16** At project start, all heavy duty trucks entering the property must meet or exceed 2010 engine emission standards specified in California Code of Regulations Title 13, Article 4.5, Chapter 1, Section 2025. ~~Older (prior to 2010 model year) transfer trucks shall be equivalent to Tier 2 emission standards (such as particulate filter traps) prior to onsite use.~~ **MM AQ-17** The Project Applicant shall require all-on-site off-road heavy-duty equipment (loaders, excavators, skid steer) to meet USEPA Tier 3 emissions standards (or Tier 4 emission standards based on availability at the initiation of the Project). In addition, these on-site off-road construction equipment used in operation of the Project shall be outfitted with the Best Available Control Technology (BACT) devices certified by CARB. Any emissions control device used by the applicant shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations. A copy of the certified tier specification for each piece of heavy-duty equipment, BACT documentation, and CARB or SCAQMD operating permit shall be provided to the City prior to operation of the Project. **MM AQ-18** All diesel truck operators shall strictly abide by the applicable State law	

Table ES-2 Potentially Significant Effects and Mitigation Program
Irwindale Materials Recovery Facility and Transfer Station EIR

Potentially Significant Effects	Proposed Mitigation Measures	Level of Impact After Mitigation
	requirements for idling, as described in the Airborne Toxic Control Measure (CCR, Title 13, Section 2485), which limits vehicles with gross vehicular weight ratings of more than 10,000 pounds to no more than five minutes of idling of the primary engine or the diesel-fueled auxiliary power system at any location. Trucks engaging in unloading at the Project site and load weighing/financial transactions at the scale house shall be prohibited from idling in excess of five minutes. Visible signage notifying truck operators of idling limits shall be posted near all site entrances. In the event third party collection haulers were required, all diesel truck operators that use the facility would be encouraged, and if reasonably possible by Athens to require contractually, to apply in good faith for funding from an established CARB or SCAQMD funding program to either retrofit or replace engines that are older than 2007 model year.	
Odors from wastes and organic materials attributable to project operations are potentially significant. MM AQ-19 through AQ-21 are recommended to mitigate these potential effects.	**MM AQ-19** Applicant shall minimize odors during operation of the MRF/TS by properly maintaining design features and equipment designed to reduce and eliminate odors and pursuant to provisions of SCAQMD Rule 410. **MM AQ-20** On-Site Management Plan No. 3; Athens Services Odor Control Program shall include a requirement that any and all odor complaints shall be referred directly to the City of Irwindale Community Development Department Code Enforcement Division. Odor complaints shall be substantiated by the City as follows: a. Inspection and confirmation by Code Enforcement Division Staff;	Less than significant with mitigation.

Table ES-2 Potentially Significant Effects and Mitigation Program *Irwindale Materials Recovery Facility and Transfer Station EIR*		
Potentially Significant Effects	**Proposed Mitigation Measures**	**Level of Impact After Mitigation**
	and/or b. Inspection and confirmation by the SCAQMD; and/or c. A qualified consultant, as determined and selected by the City, will be retained to collect samples to quantify odor intensity using a Nasal Ranger or other comparable instrument. Such consultant shall be retained by the City at the sole expense of the Applicant. Facility representatives shall conduct an odor survey as soon as practical, but not to exceed 2 hours after receiving an odor complaint or notification from the SCAQMD or the LEA. Upon substantiation of an odor complaint, Applicant shall meet with the City within 48 hours to determine actions to remedy the odor complaint. A detailed action plan shall be prepared within 72 hours of the meeting identifying the steps to be taken to remedy the issue. All remedies shall be at the sole expense of the Applicant, and shall be implemented / installed as soon as feasible. **MM AQ-21** As a means to address public concerns and complaints regarding odors, the Project Applicant shall publicly post the SCAQMD odor complaint phone number [1-800-CUT-SMOG (1-800-288-7664)] and website address (http://www.aqmd.gov/complain/reporting_aq_problems.html) on signs that are visible from the street at all entrances to the MRF/TS facility.	
GHG emissions attributable to project operations are potentially significant. MM AQ-22 is recommended	**MM AQ-22** The Project Applicant shall purchase verifiable and certified GHG offset credits and provide verification to the City of the purchase annually. Off-set credits shall be purchased in an amount that is based on one of the following:	Less than significant with mitigation.

Table ES-2 Potentially Significant Effects and Mitigation Program
Irwindale Materials Recovery Facility and Transfer Station EIR

Potentially Significant Effects	Proposed Mitigation Measures	Level of Impact After Mitigation
to address this potential impact.	(1) Offset-credits for 48,803 metric tons or, (2) Offset-credits in an amount computed on the basis of the Project's actual GHG emissions the previous year compared to emissions from the 2013 baseline condition-minus 10,000 metric tons of CO_2e per year. The calculation must be prepared and certified by a professional Air Pollution expert, acceptable to the City as determined by the Director of Community Development. When feasible, offset purchases would be prioritized by proximity to the Project Site, with greatest preference given to projects within the jurisdictional boundaries of the SCAQMD, then California, and then finally nationally. Carbon offsets are widely available in a number of markets (e.g., GreenX and IntercontinentalExchange) and exists at levels that greatly exceed the potential needs of the Proposed Project."	
3.4 Biological Resources		
Grading and construction activities undertaken for the Proposed Project may disturb birds protected under the federal Migratory Bird Treaty Act and California Fish and Game Codes. Mitigation measure **Bio-1** is recommended to address this	**MM BIO-1** The Applicant shall comply with the regulatory requirements of the federal Migratory Bird Treaty Act and California Fish and Game Codes §3503, §3503.5, and §3513 regarding Proposed Project grading and construction activities. *Pre-construction Surveys for Nesting Birds* The Applicant shall implement the following protective measures to ensure implementation of the Migratory Bird Treaty Act and compliance with State	Less than significant with mitigation.

Table ES-2 Potentially Significant Effects and Mitigation Program
Irwindale Materials Recovery Facility and Transfer Station EIR

Potentially Significant Effects	Proposed Mitigation Measures	Level of Impact After Mitigation
potential effect.	regulations during construction. To the extent feasible, the Applicant and/or the construction contractor(s) shall trim/remove all vegetation/tree limbs necessary for Proposed Project construction between September 1 and January 31. Should construction activities or vegetation removal commence between February 1 to August 31, pre-construction surveys for nesting birds shall be conducted for any affected tree(s) located within the public right of way by a qualified biologist to ensure that no active nests would be disturbed during project implementation. A preconstruction survey shall be conducted no more than 14 days prior to the initiation of demolition/construction activities. During this survey, the qualified person shall inspect the street trees located within the public right of way and areas immediately adjacent to the project site for nests. If an active nest is found close enough to the construction area to be disturbed by these activities, the qualified biologist, in consultation with the California Department of Fish and Wildlife, shall determine the extent of a construction-free buffer zone to be established around the nest until the young have fledged.	
3.5 Cultural Resources		
Although it is not expected that historical, archaeological or paleontological resources, or human remains will be found on site, it is possible that construction grading and excavations may encounter	**MM CR-1** The Applicant and City shall consult with the Gabrieleño Band of Mission Indian Tribe, prior to on-site earthwork activities, to invite a Native American Monitor at the project site for the excavation and ground disturbance activities. **MM CR-2** In the event any previously undetected archaeological resources are	Less than significant with mitigation.

Table ES-2 Potentially Significant Effects and Mitigation Program
Irwindale Materials Recovery Facility and Transfer Station EIR

Potentially Significant Effects	Proposed Mitigation Measures	Level of Impact After Mitigation
such materials. Mitigation measures **MM CR-1** through **CR-4** are recommended to address these potential effects.	encountered during project construction, all excavation and ground disturbance activities shall cease and a qualified archaeologist will be contacted within 24 hours to evaluate the nature and significance of any such discoveries. If a discovery proves to be significant, additional work (such as data recovery excavation) may be warranted. Work may be resumed with approval of the attending archeologist and City Staff. Further, should unforeseen artifacts become uncovered during site grading, the Applicant would be required to adhere to all City and State of California procedures, including Section 21083.2(i) of the CEQA Statutes and Section 15064.5 of the CEQA Guidelines regarding stoppage of work, handling of discovered materials, and notification of proper authorities to ensure that the construction/operation of the MRF/TS project would not have an adverse effect on cultural resources. **MM CR-3** In the event that any unknown (remaining) paleontological or geological resources are encountered during project implementation, the Applicant shall cease earthwork immediately and contact a qualified paleontologist or geologist within 24-hours to evaluate the nature and significance of any such discoveries. Work may be resumed with approval of the attending archeologist and City Staff. **MM CR-4** If human remains are discovered during project activities, the City of Irwindale Planning Department and the Los Angeles County Coroner's office	

Table ES-2 Potentially Significant Effects and Mitigation Program
Irwindale Materials Recovery Facility and Transfer Station EIR

Potentially Significant Effects	Proposed Mitigation Measures	Level of Impact After Mitigation
	shall be notified within 24 hours under state law (California Health and Safety Code § 7050.5) and all activities in the immediate area of the find shall cease until appropriate and lawful measures have been taken. If the Coroner determines that the remains are Native American, the NAHC shall also be contacted (California Public Resources Code § 5097.98). In accordance with Section 5097.98 of the *California Public Resources Code*, the NAHC shall designate a Most Likely Descendent, who may make recommendations concerning the disposition of the remains in consultation with the City and the project archaeologist.	
3.6 Environmental Justice		
Environmental justice was assessed in response to scoping comments, and is not required to be analyzed under CEQA. The assessment concludes that the Proposed Project will not have any disproportionate effects on any disadvantaged population within the Los Angeles region or among local communities, and does not raise environmental justice issues beyond those attributable to	No mitigation measures specific to environmental justice are required. The City is sensitive to the environmental effects of projects on the local community, and as documented throughout this EIR, has identified a comprehensive Mitigation Program to avoid or minimize the potential impacts of this Proposed MRF/TS Project.	No impact.

Table ES-2 Potentially Significant Effects and Mitigation Program
Irwindale Materials Recovery Facility and Transfer Station EIR

Potentially Significant Effects	Proposed Mitigation Measures	Level of Impact After Mitigation
the region as a whole.		
3.7 Geology and Soils		
The entire region is an active seismic zone, requiring site specific consideration of foundation building requirements for safety. In addition, ground disturbance during construction could be susceptible to erosion and sedimentation during storm events. Project Design Feature **Geo-1** and mitigation measure **WQ-1** are recommended to address these potential impacts.	**MM WQ-1** The Applicant shall comply with the project-specific National Pollutant Discharge Elimination System (NPDES) Permit requirements (such as the Storm Water Pollution Prevention Plans (SWPPPs) and Best Management Practices (BMPs) including: limiting construction access routes and stabilizing access points; staking/marking construction limits; protection of cut and fill surfaces from sheet, rill and gully erosion; stabilizing temporarily denuded areas with seeding, mulching, jute netting, hay bales and silt fences or other methods; designating specific areas for the stockpiling, handling, preparation and disposal of construction materials; quickly establishing groundcover and landscaping of areas designated to remain pervious; and/or waste material and litter control to prevent existing drainages).	Less than significant with mitigation.
3.8 Hazards and Hazardous Materials		
Potential hazards and hazardous materials related to the project include the management of waste materials, and the possibility	No mitigation measures relative to this resource topic are proposed or required.	Less than significant impact.

Table ES-2 Potentially Significant Effects and Mitigation Program
Irwindale Materials Recovery Facility and Transfer Station EIR

Potentially Significant Effects	Proposed Mitigation Measures	Level of Impact After Mitigation
of illegally dumped hazardous wastes to be encountered in the recycling operations. Project Design Features **HAZ-1** and **HAZ-2** are recommended to address these potential effects.		
3.9 Land Use and Planning		
The Proposed Project has been reviewed in consideration of all of the goals, plans, and policies in the City's General Plan and concludes that the Proposed Project does not conflict with any goal, plan or policy of the City's General Plan, or other land use plan, policy, or regulation. The Proposed Project also does not conflict with the City of Baldwin Park's General Plan.	No mitigation measures relative to this resource topic are proposed or required.	No impact.
3.10 Noise		

Table ES-2 Potentially Significant Effects and Mitigation Program
Irwindale Materials Recovery Facility and Transfer Station EIR

Potentially Significant Effects	Proposed Mitigation Measures	Level of Impact After Mitigation
Noise generation attributable to the Proposed Projects includes construction activities and long term operations. Operational noise includes on site waste management and recycling operations, and traffic noise along truck haul routes on Arrow Highway and Live Oak Boulevard. Mitigation measures **N-1** through **N-7** are recommended to address these potential impacts to the extent feasible.	**MM N-1** Prior to construction, the Construction Contractor shall obtain authorization from Irwindale's building inspector to exceed the ambient base noise level by more than five (5) dBA during construction activities at the property boundary for industrial zoned land use. **MM N-2** The Construction Contractor shall limit all construction activities from 7 a.m. to 7 p.m. Monday through Saturday. No construction activity shall be conducted on Sundays or during legal holidays. **MM N-3** The Construction Contractor shall construct the masonry soundwall around the site perimeter during the initial construction phase to establish the means for noise reduction during subsequent construction and operations. In the event that the soundwall is not constructed prior to construction of the buildings, a temporary sound barrier or curtain shall be used as a temporary measure to reduce noise impacts (by at least 5 decibels) until the soundwall can be constructed. **MM N-4** The Construction Contractor shall operate and maintain a City-approved haul truck traffic route restricted to major traffic arteries, and prohibited from using Baldwin Park Boulevard south of Live Oak Avenue.	Less than significant impacts with mitigation for most surrounding land uses. Unavoidable significant noise impacts for the adjacent commercial building to the west, and along Arrow Highway north of the Proposed Project site. Operational and traffic-related noise impacts would therefore contribute to a significant and unavoidable cumulative noise impact.

Table ES-2 Potentially Significant Effects and Mitigation Program
Irwindale Materials Recovery Facility and Transfer Station EIR

Potentially Significant Effects	Proposed Mitigation Measures	Level of Impact After Mitigation
	MM N-5 The Construction Contractor shall provide construction equipment equipped, operated, and maintained with manufacturer recommended mufflers or the equivalent. The construction contractor shall locate staging and delivery areas as far as feasible from sensitive land uses or adjacent occupied buildings and schedule deliveries during daytime hours when residential areas south of the project site are less susceptible to annoyance from outside noise. **MM N-6** The Construction Contractor shall post rules visible to drivers that require turning-off construction equipment when not in operation (for more than 5 minutes). The construction contractor shall shield stationary equipment operating under full power for more than 60 minutes that would otherwise not be shielded by the perimeter soundwall. **MM N-7** The Applicant shall implement all of the following: • For the western/southwestern property boundary (for approximately the first 450 feet of the property boundary north of Live Oak Avenue), the Applicant shall construct the 8-foot perimeter masonry soundwall on top of a two-foot berm so that the effective height of the soundwall would be 10 feet (with the exception that the berm is not required to be constructed on any utility easements). • The Applicant shall modify nighttime operations (10 p.m. – 7 a.m.) that	

Table ES-2 Potentially Significant Effects and Mitigation Program
Irwindale Materials Recovery Facility and Transfer Station EIR

Potentially Significant Effects	Proposed Mitigation Measures	Level of Impact After Mitigation
	result in verified noise complaints to eliminate objectionable noise during the nighttime hours. The applicant shall notify the City of any noise complaints received within 24 hours of receiving the complaint and provide a proposed amendment to the On-Site Management Plans to demonstrate a reduction in ambient noise within one (1) week, subject to review and approval of the City upon a finding that the amendment will result in compliance with adopted noise standards of the City of Irwindale and the City of Baldwin Park. • The Applicant shall obtain authorization by permit from the City to exceed ambient noise levels from facility operations on the western/northwestern boundary and the southern boundary (for 5 a.m. to 7 a.m.) pursuant to IMC Section 9.28.120. If the applicant does not obtain authorization by permit to exceed noise levels, the applicant will be required to modify operations to reduce noise levels between 5 a.m. to 7 a.m. to 65 dBA.	
3.11 Public Services		
No significant impacts on public services or utilities systems would result from either construction or operation of the Proposed Project.	No mitigation measures relative to this resource topic are proposed or required.	No impacts.
3.12 Traffic Generation and Circulation		

Table ES-2 Potentially Significant Effects and Mitigation Program
Irwindale Materials Recovery Facility and Transfer Station EIR

Potentially Significant Effects	Proposed Mitigation Measures	Level of Impact After Mitigation
Potential traffic impacts attributable to the project include high volume heavy duty trucks used in waste hauling and for transport of processed materials, as well as lighter duty vehicles for self-haul operations, employee trips, and trips for convenience store customers. The traffic impact assessment examined traffic flow and routing at the site and adjacent roadways, and haul routes to and from the freeway system, including both freeway ramp and mainline analyses as requested by Caltrans. **MM T-1** through **T-6** are recommended to address these potential impacts.	**Recommended Off-Site Improvements** **MM T-1** To mitigate potential traffic impacts at I-605 NB Off-Ramp (NS) / Live Oak Avenue (EW)(#8), the developer will be required to construct or fund the following improvement: • Install a traffic signal. • Construct a 2nd northbound right turn lane. • Provide a 3rd westbound through lane by modifying the existing raised median. This will also provide additional queuing storage for the westbound left turn lane at the intersection of I-605 SB On-Ramp (NS) / Live Oak Avenue (EW). **MM T-2** To mitigate potential traffic impacts to I-605 SB Off-Ramp (NS) / Arrow Highway (EW)(#3), the developer will be required to construct or fund the following improvements: • Construct a 2nd southbound left turn lane. **On-Site Improvements Required to Mitigate Potential Traffic Impacts from Vehicles Entering and Exiting the Site** **MM T-3** To mitigate potential traffic impacts to Arrow Highway (NS) / Driveway 1 (EW), the Applicant shall be required to do the following:	Significant and unavoidable. The Proposed Project is expected to contribute to cumulative impacts to existing deficiencies or projected deficiencies on the I-210 freeway mainline segments eastbound and westbound of the Irwindale Avenue on and off ramps, and the I-605 northbound off-ramp at Live Oak Avenue and the I-210 westbound off-ramp at Irwindale Avenue.

Table ES-2 Potentially Significant Effects and Mitigation Program
Irwindale Materials Recovery Facility and Transfer Station EIR

Potentially Significant Effects	Proposed Mitigation Measures	Level of Impact After Mitigation
	Prior to commencement of operations, the Applicant shall install a traffic signal and construct the intersection with the following geometrics: • Northbound Approach: One left turn lane (two way turn lane) and two through lanes. • Southbound Approach: Two through lanes and one right turn lane. • Eastbound Approach: One left turn lane and one right turn lane. • Westbound Approach: N/A **MM T-4** To mitigate potential traffic impacts to Arrow Highway (NS) / Driveway 2 (EW), the Applicant shall be required to do the following: Prior to commencement of operations, the Applicant shall install a stop control on the eastbound approach and construct the intersection with the following geometrics: • Northbound Approach: One left turn lane (two way turn lane) and two through lanes. • Southbound Approach: Two through lanes and one right turn lane. • Eastbound Approach: One shared left turn and right turn lane. • Westbound Approach: N/A **MM T-5** To mitigate the potential impact to Driveway 3 – Baldwin Park Boulevard (NS) / Live Oak Avenue (EW), the Applicant shall be required to do the following:	

Table ES-2 Potentially Significant Effects and Mitigation Program *Irwindale Materials Recovery Facility and Transfer Station EIR*		
Potentially Significant Effects	**Proposed Mitigation Measures**	**Level of Impact After Mitigation**
	Prior to commencement of operations, the Applicant shall modify traffic signal to include Project Driveway 3 (north leg) and construct the intersection with the following geometrics: • Northbound Approach: Two left turn lanes and one shared through-right turn lane. • Southbound Approach: One left turn lane and one shared through-right turn lane. • Eastbound Approach: One left turn lane (100-foot pocket length), two through lanes, and one defacto right turn lane. • Westbound Approach: One left turn lane, two through lanes, and one right turn lane. **MM T-6** To mitigate the potential impact of conflicting project turning movements in the vicinity of Driveway 1 the Applicant shall be required to do the following: Prior to commencement of operations, the Applicant shall make the following changes to the convenience store/gas pump access configuration: • Provide a right-in/right-out access for the convenience store located between Driveway 1 and Driveway 2 along Arrow Highway. • Eliminate convenience store Driveway located immediately to the north of Driveway 1 along Arrow Highway. • Move Convenience Store/Gas pump access further into the site (away from signalized intersection, increasing the throat length of the driveway).	

Table ES-2 Potentially Significant Effects and Mitigation Program *Irwindale Materials Recovery Facility and Transfer Station EIR*		
Potentially Significant Effects	**Proposed Mitigation Measures**	**Level of Impact After Mitigation**
	• Provide a 28-foot internal access driveway connecting MRF main driveway to convenience store with gas pumps. • On-site traffic signing and striping should be implemented in conjunction with detailed construction plans for the project site. • Sight distance at the project driveways should be reviewed with respect to standard Caltrans and City of Irwindale sight distance standards at the time of preparation of final grading, landscape and street improvement plans.	
3.13 Water Quality and Hydrology		
Potential water quality impacts attributable to the Proposed Project include the possibility for contaminants to be transported off-site in stormwater runoff. By design, discharges from the tipping floor and sorting area are enclosed within the Main Recovery Facility, eliminating the possible water runoff to stormwater discharge points. Green wastes are also stored in enclosed locations and would not be exposed to	No mitigation measures relative to this resource topic are proposed or required.	Less than significant impact.

Table ES-2 Potentially Significant Effects and Mitigation Program
Irwindale Materials Recovery Facility and Transfer Station EIR

Potentially Significant Effects	Proposed Mitigation Measures	Level of Impact After Mitigation
rainwater. All liquid waste from the power scrubbing of the tipping and green waste floors are proposed to be discharged to the municipal sewer system under permit from the Los Angeles County Sanitation Districts. Therefore, potential impacts are less than significant. Project Design Feature **WQ-1** is recommended for implementation to assure that the facility operates at a high level of water efficiency and effective wastewater treatment.		
4.0 Mandatory CEQA Considerations		
Growth Inducement: The vacant site is currently zoned for Heavy Industrial use and is designated for commercial land use [now proposed for commercial/industrial land use] in fulfillment of the City's long-term economic development goals. The Project will add approximately 345 employees to the local and regional workforce. It is anticipated that prospective employees will come primarily from underemployed citizens from the City and surrounding communities, and therefore the new employment opportunities are not expected to induce substantial new population growth from outside the region. The Proposed Project does not remove any barriers to growth, and does not have characteristics that could induce growth		

Table ES-2 Potentially Significant Effects and Mitigation Program
Irwindale Materials Recovery Facility and Transfer Station EIR

Potentially Significant Effects	Proposed Mitigation Measures	Level of Impact After Mitigation
locally or regionally. Therefore, potential growth inducing impacts are found to be less than significant.		
Significant Irreversible Effects and Irretrievable Commitment of Resources: In addition to the commitment of land to urban uses, implementation of the Proposed Project would involve the consumption of energy derived from nonrenewable sources for electricity to power on-site equipment and fossil fuels for project-related vehicle trips. Building materials could be considered permanently consumed. These changes would be irreversible, but are the result of long-term land use planning, fulfill regional recycling and waste management needs, and benefit the City's long-term economic development goals and plans. These changes are also not unique to this site, and would occur anywhere a MRF/TS was developed in the region. As such, these changes do not constitute significant adverse impacts.		
Significant and Unavoidable Adverse Impacts: With implementation of the Mitigation Program identified within the MRF/TS EIR the potentially significant environmental impacts identified for resource topics throughout this EIR would be less than significant, with the exception of air quality, noise, and traffic impacts.		
Energy Conservation: The Proposed Project has been designed to play a role in the integration of energy saving recycling of materials as mandated by the State of California; as such, the Proposed Project is intended to help achieve existing and future recycling and waste reduction mandates, and waste management. The transfer station is also an energy efficient function, allowing processing of materials close to sources, with more efficient transport of processed materials to ultimate destinations. Numerous energy conservation mitigation measures are identified within the air quality chapter of the EIR, and are included as recommended conditions of project approval.		

2.0 COMMENTS AND RESPONSES

This chapter contains copies of the written comment letters submitted during the public review period for the Draft EIR and Recirculated Draft EIR, and responses to those comments. Each comment letter is designated with a number in the upper right-hand corner of the letter. The letters are grouped by agency, organization, and individuals. Within each comment letter, separate comments are bracketed and labeled with a number in the margin. Immediately following each comment letter is the response to each numbered comment.

STATE OF CALIFORNIA

Governor's Office of Planning and Research

State Clearinghouse and Planning Unit

Edmund G. Brown Jr.
Governor

Ken Alex
Director

May 19, 2014

Comment Letter 1

Paula Kelly
City of Irwindale
5050 N. Irwindale Avenue
Irwindale, CA 91706

Subject: Materials Recovery Facility and Transfer Station (MRF/TS)
SCH#: 2013051029

Dear Paula Kelly:

The State Clearinghouse submitted the above named Draft EIR to selected state agencies for review. On the enclosed Document Details Report please note that the Clearinghouse has listed the state agencies that reviewed your document. The review period closed on May 16, 2014, and the comments from the responding agency (ies) is (are) enclosed. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project's ten-digit State Clearinghouse number in future correspondence so that we may respond promptly. 1

Please note that Section 21104(c) of the California Public Resources Code states that:

> "A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. Those comments shall be supported by specific documentation."

These comments are forwarded for use in preparing your final environmental document. Should you need more information or clarification of the enclosed comments, we recommend that you contact the commenting agency directly.

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process.

Sincerely,

Scott Morgan
Director, State Clearinghouse

Enclosures
cc: Resources Agency

Document Details Report
State Clearinghouse Data Base

SCH# 2013051029
Project Title Materials Recovery Facility and Transfer Station (MRF/TS)
Lead Agency Irwindale, City of

Type EIR Draft EIR

Description Athens Services (Applicant/Operator) has submitted an application to the City of Irwindale (City) to construct and operate a Materials Recovery Facility and Transfer Station (MRF/TS), with a Fueling Facility/Convenience Store (see NOP attached, figure 1 - 4). A MRF/TS is a facility where residential, commercial, and/or industrial municipal solid waste and recyclable materials are delivered by commercial and non-commercial haulers, and sorted and processed in one central location prior to delivery at end use distributors.

Lead Agency Contact

Name Paula Kelly
Agency City of Irwindale
Phone 626 430 2200 **Fax**
email
Address 5050 N. Irwindale Avenue
City Irwindale **State** CA **Zip** 91706

Project Location

County Los Angeles
City Irwindale, Baldwin Park
Region
Lat / Long 34° 6' 15" N / 117° 58' 0" W
Cross Streets NW corner of Live Oak Avenue and Arrow Highway
Parcel No. 8535-001-911
Township 1S **Range** 10W **Section** 6 **Base** SBB&M

Proximity to:

Highways I-605 and 210
Airports No
Railways SPRR
Waterways San Gabriel River
Schools Heath, Landis, Geddes
Land Use Vacant and disturbed / Heavy Manufacturing / Commercial

Project Issues Aesthetic/Visual; Agricultural Land; Air Quality; Archaeologic-Historic; Biological Resources; Drainage/Absorption; Forest Land/Fire Hazard; Geologic/Seismic; Minerals; Noise; Population/Housing Balance; Public Services; Recreation/Parks; Schools/Universities; Sewer Capacity; Soil Erosion/Compaction/Grading; Solid Waste; Toxic/Hazardous; Traffic/Circulation; Water Quality; Water Supply; Growth Inducing; Landuse; Cumulative Effects; Other Issues

Reviewing Agencies Resources Agency; Department of Fish and Wildlife, Region 5; Department of Parks and Recreation; Department of Water Resources; Resources, Recycling and Recovery; California Highway Patrol; Caltrans, District 7; Air Resources Board; Regional Water Quality Control Board, Region 4; Department of Toxic Substances Control; Native American Heritage Commission; Public Utilities Commission; San Gabriel & Lower Los Angeles Rivers & Mountains Conservancy

Date Received 04/01/2014 **Start of Review** 04/02/2014 **End of Review** 05/16/2014

CalRecycle

DEPARTMENT OF RESOURCES RECYCLING AND RECOVERY

1001 I STREET, SACRAMENTO, CALIFORNIA 95814 • WWW.CALRECYCLE.CA.GOV • (916) 322-4027

P.O. BOX 4025, SACRAMENTO, CALIFORNIA 95812

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MAY 06 2014
STATE CLEARING HOUSE

May 6, 2014

clearr
5/16/14

Ms. Paula Kelly, Senior Planner
City of Irwindale
5050 North Irwindale Avenue
Irwindale, CA 91706

Subject: **SCH No. 2013051029** – Draft Environmental Impact Report for Irwindale Material Recovery Facility and Transfer Station, City of Irwindale – Los Angeles County

Dear Ms. Kelly:

Thank you for allowing the Department of Resources Recycling and Recovery (CalRecycle) staff to provide comments for this proposed project and for your agency's consideration of these comments as part of the California Environmental Quality Act (CEQA) process.

PROJECT DESCRIPTION

The City of Irwindale, acting as Lead Agency, has prepared and circulated a Notice of Completion (NOC) of a Draft Environmental Impact Report (DEIR) in order to comply with CEQA and to provide information to, and solicit consultation with, Responsible Agencies in the approval of the proposed project.

The proposed Irwindale Materials Recovery Facility and Transfer Station (Project) is located at 2200 Arrow Highway, at the northwestern intersection of Live Oak Avenue and Arrow Highway, in the City of Irwindale. The project site is approximately 17.22 acres, and is currently zoned for Heavy Manufacturing and located in an industrial area, with various commercial/industrial, residential, and recreational land uses in the surrounding areas.

The applicant/operator, Athens Services, is proposing to construct and operate a fully enclosed Materials Recovery Facility and Transfer Station (MRF/TS), with a Fueling Facility/Convenience Store, with a total area of 247,007 square feet. The MRF/TS would receive, process, and transfer mixed municipal solid waste (MSW), green waste, construction and demolition materials, and waste hauled in by self-haulers. The MRF/TS operations would consist of sorting, consolidating, and compacting received materials, and then re-loading all recyclable, compostable, and solid waste material into transfer trucks for transport to additional processing and/or disposal facilities.

The MRF/TS would be open for waste receipt 24 hours per day, seven days per week. The MRF/TS would have a maximum capacity to process up to 3,000 tons per day (TPD) of MSW, 1,000 TPD of green waste, 1,000 TPD of construction and demolition waste, and 1,000 TPD of self-haul waste. The sum of the upper end values for each waste type equals 6,000 TPD.

In addition to the MRF/TS, on-site improvements include operations offices, administrative offices and visitor center, maintenance facility, scale houses, and a fueling facility/convenience store open to the public.

The following environmental impacts were analyzed and considered significant and unavoidable as a result of the proposed project:

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1. Air quality – The project would result in a regional cumulative operations impact given that the Basin is in nonattainment for ozone and the proposed project would exceed the regional daily emissions thresholds for ROG and NO_x, which are ozone precursors.

2. Noise – The proposed project would result in short-term construction, permanent ambient operational noise impacts on the western/northwestern border, and traffic related noise impact.

3. Traffic – As the proposed project would contribute to the existing and forecasted deficient freeway segments, the project's contribution to these cumulative traffic impacts is considered cumulatively considerable.

All other potentially significant environmental impacts would be reduced to a less than significant impact level with implementation of the Mitigation Program identified within the DEIR.

Project Variant
In the event that the Valley County Water District acquires 1.9 acres of the proposed project, the MRF/TS operations would essentially be the same as described above except that there would be no transfer truck parking. Instead, the proposed project would use sub-hauler vendors to transfer the material. The total area for the project variant would be 230,972 square feet.

COMMENTS

Tonnage
Please include the methods and calculations used to determine the maximum storage capacity for MSW, green waste, construction and demolition waste, and self-haul waste pursuant to Title 14, California Code of Regulations (14 CCR), Section 18221.6 (g).

Statement of Overriding Considerations
Since there will be significant and unavoidable impacts resulting from the proposed project, CalRecycle staff requests that a copy of the Statement of Overriding Considerations and Findings be forwarded as required by 14 CCR Section 15091, along with any related resolutions adopted by the decision-making body.

Solid Waste Facilities Permit
The Los Angeles County Department of Public Health's Solid Waste Management Program as the Local Enforcement Agency (LEA) and CalRecycle are responsible for providing regulatory oversight of solid waste handling activities, including transfer/processing facilities, relative to permitting and inspections. The permitting and regulatory requirements for transfer/processing facilities are contained in Title 14 and 27 CCR. The proposed project will require concurrence by CalRecycle in the issuance, by the LEA, of a Solid Waste Facilities Permit for the operation of a Large Volume Transfer/Processing Facility. Please contact the LEA at 626.430.5540 to discuss permit requirements for the project.

CONCLUSION
CalRecycle staff thanks the Lead Agency for the opportunity to review and comment on the environmental document and hopes that this comment letter will be useful to the Lead Agency preparing the DEIR and in carrying out their responsibilities in the CEQA process.

CalRecycle staff requests copies of any subsequent environmental documents, copies of public notices and any Notices of Determination for this project. Refer to 14 CCR Section 15094(d) that states:

If the project requires discretionary approval from any state agency, the local lead agency shall also, within five working days of this approval, file a copy of the notice of determination with the Office of Planning and Research [State Clearinghouse].

If the environmental document is certified during a public hearing, CalRecycle staff requests ten days advance notice of this hearing. If the document is certified without a public hearing, CalRecycle staff requests ten days advance notification of the date of the certification and project approval by the decision making body.

If you have any questions regarding these comments, please contact me at 916.323.0834 or by e-mail at Martin.Perez@calrecycle.ca.gov.

Sincerely,

Martin Perez
Permitting and Assistance Branch - South Unit
Waste Permitting, Compliance, and Mitigation Division
CalRecycle

cc: Virginia Rosales, Supervisor
Permitting and Assistance Branch - South Unit

Gerardo Villalobos, Chief
Department of Public Health
County of Los Angeles
5050 Commerce Drive,
Baldwin Park, CA 91706
gvillalobos@ph.lacounty.gov

Response to Comment Letter 1

Response 1-1: Comment noted. The City appreciates the State Clearinghouse's transmittal of the Department of Resources Recycling and Recovery comment letter dated May 6, 2014. The letter from the Department of Resources Recycling and Recovery is included herein as Comment Letter 3, with the City of Irwindale's responses.

DEPARTMENT OF TRANSPORTATION
DISTRICT 7, OFFICE OF TRANSPORTATION PLANNING
IGR/CEQA BRANCH
100 MAIN STREET, MS # 16
LOS ANGELES, CA 90012-3606
PHONE: (213) 897-9140
FAX: (213) 897-1337

Flex your power!
Be energy efficient!

Comment Letter 2

May 22, 2014

Ms. Paula Kelley
City of Irwindale
5050 North Irwindale Ave
Irwindale, CA 91706

Re: **Materials Recovery Facility and Transfer Station**
Draft Environmental Impact Report
SCH# 2013051029, IGR#140416/EA
Vic: LA/605/23.9

Dear Ms. Kelley:

The California Department of Transportation (Caltrans) has reviewed the Traffic Generation and Circulation section of the Draft Environmental Impact Report (DEIR) for the proposed Materials Recovery Facility and Transfer Station. The proposed facility consists of approximately 228,400 square feet, a fueling station with convenience store, and a visitor center/administrative building of approximately 16,180 square feet. The project site is located east of I-605 at the intersection of Live Oak Avenue and Arrow Highway in the City of Irwindale.

Caltrans offers the following comments:

The proposed facility would be designed to receive, process, and transfer up to 6,000 tons per day. The maximum daily number of trucks is anticipated to be 2,456 truck round trips. These trips include different type of truck trips and employee trips. When converting truck trips to passenger-car equivalents (PCE), the proposed project would generate approximately 8330 trip-ends with 644 during the AM peak hour and 664 in the PM peak hour. Table 3.12-12 shows that the intersection of northbound I-605 loop off-ramp to westbound Live Oak Ave operates at LOS "F" during the existing scenario and it is anticipated to be significantly impacted with the proposed project in the existing plus project scenario. The northbound I-605 slip off-ramp to eastbound Live Oak Avenue is also anticipated to be significantly impacted as it is expected to operate at an unacceptable LOS "F".

Caltrans notes that mitigation measures MM T-1 and MM T-2 will be required to reduce potential increase in delays associated with the project. 1

MM T-1: Northbound I-605 off-ramp to Live Oak Avenue - Install traffic signal, construct a second northbound right turn lane, provide a third westbound through lane by modifying the existing raised median. This will also provide additional queuing storage for the westbound left turn lane at the intersection of I-605 southbound On-ramp/Live Oak Avenue.

MM T-2: Southbound Off-Ramp to Arrow Highway – Construct a 2nd southbound left turn lane including the necessary traffic signal modification.

Please require that mitigation measures MM T-1 and MM T-2 are in place within a reasonable timeframe and before the proposed Materials Recovery Facility and Transfer Station reaches its maximum capacity. These improvements would be on state right of way, so Caltrans will cooperate with the City and sponsors of the project to process an encroachment permit. 1 con't

According to the traffic impact analysis, the proposed project is expected to contribute to cumulative impacts to existing deficiencies or projected deficiencies on I-210 immediately east and west of the Irwindale Avenue interchange; however, no mitigation measures are proposed. Under CEQA, the lead agency must adopt any reasonably feasible mitigation measures that would reduce the impact. Please contact Caltrans to develop mitigation alternatives that would be feasible and mutually acceptable. Alternative mitigation measures may include non-capacity enhancing improvements that would make the existing highway operate more efficiently such as Intelligent Transportation Systems equipment, e.g., changeable message signs, real time metering. Other vehicle trip reducing strategies may also be considered as well, e.g. enhancements to public transit amenities (buses or bus stops), an employer or city sponsored vanpool/carpool program, telecommuting, a shuttle bus from closest rail station (Gold Line) etc. 2

Please be aware that CEQA does not require that a fee program be adopted for local jurisdictions to require fee contributions as mitigation. Caltrans or the City may accept fair share funding contributions towards future improvements of its facilities so long as we can show that such improvements are reasonably expected to be implemented in a reasonable time frame. Again, please contact Caltrans to explore and develop these reasonable measures and plan.

If you have any questions regarding these comments or wish to schedule a meeting, you may contact me or project coordinator Elmer Alvarez at (213) 897 – 6696 or electronically at elmer.alvarez@dot.ca.gov. Please refer to our internal record number 140416/EA.

Sincerely,

DIANNA WATSON
IGR/CEQA Branch Chief

cc: Scott Morgan, State Clearinghouse

Response to Comment Letter 2

Response 2-1: The City of Irwindale is engaged in ongoing consultation with Caltrans regarding highway improvements required for this project and other regional projects. As stated in Caltrans's Recirculated Draft EIR comment letter dated September 22, 2014: "*We reiterate that Caltrans will cooperate with the City project applicant to implement the proposed improvements MM T-1 and MMT-2 in a timely manner*." The City has included these road improvements in its Capital Improvement Program (CIP), and the design of MM T-1, Northbound I-605 off-ramp to Live Oak Avenue, is at its final design phase pending approval by Caltrans. This improvement project is programmed in the City's CIP to begin construction in calendar year 2016.

The MM T-2, Southbound I-605 off-ramp to Arrow Highway, will be included in the City's future Capital Improvement Program to be constructed before the proposed Material Recovery Facility and Transfer Station reaches its maximum capacity.

Response 2-2: As stated in Caltrans's Recirculated Draft EIR comment letter dated September 22, 2014: "*To address the City's contribution to cumulative transportation impacts on the regional highway system including I-210, the City assured Caltrans that it will remain engaged in contributing to regional solutions. For instance, the Foothill Gold Line extension will include a station in Irwindale and it will be connected to the City with bus service. Consequently, project employees would have an alternate option to commute to work via public transit. Furthermore, the City's General Plan includes a Regional Signalization Program and will continue to coordinate with the regional transportation agencies such as Caltrans, County of Los Angeles Department of Public Works, and Metro accordingly*."

With these actions to address Caltrans's concerns regarding potential impacts to the I-210 freeway, no further project specific mitigation for the I-210 system is warranted or required.

The City appreciates Caltrans involvement in the public review process and participation as a responsible agency.

CalRecycle

DEPARTMENT OF RESOURCES RECYCLING AND RECOVERY

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P.O. BOX 4025, SACRAMENTO, CALIFORNIA 95812

Comment Letter 3

May 6, 2014

RECEIVED
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STATE CLEARING HOUSE

Ms. Paula Kelly, Senior Planner
City of Irwindale
5050 North Irwindale Avenue
Irwindale, CA 91706

Subject: **SCH No. 2013051029** – Draft Environmental Impact Report for Irwindale Material Recovery Facility and Transfer Station, City of Irwindale – Los Angeles County

Dear Ms. Kelly:

Thank you for allowing the Department of Resources Recycling and Recovery (CalRecycle) staff to provide comments for this proposed project and for your agency's consideration of these comments as part of the California Environmental Quality Act (CEQA) process.

PROJECT DESCRIPTION

The City of Irwindale, acting as Lead Agency, has prepared and circulated a Notice of Completion (NOC) of a Draft Environmental Impact Report (DEIR) in order to comply with CEQA and to provide information to, and solicit consultation with, Responsible Agencies in the approval of the proposed project.

The proposed Irwindale Materials Recovery Facility and Transfer Station (Project) is located at 2200 Arrow Highway, at the northwestern intersection of Live Oak Avenue and Arrow Highway, in the City of Irwindale. The project site is approximately 17.22 acres, and is currently zoned for Heavy Manufacturing and located in an industrial area, with various commercial/industrial, residential, and recreational land uses in the surrounding areas.

The applicant/operator, Athens Services, is proposing to construct and operate a fully enclosed Materials Recovery Facility and Transfer Station (MRF/TS), with a Fueling Facility/Convenience Store, with a total area of 247,007 square feet. The MRF/TS would receive, process, and transfer mixed municipal solid waste (MSW), green waste, construction and demolition materials, and waste hauled in by self-haulers. The MRF/TS operations would consist of sorting, consolidating, and compacting received materials, and then re-loading all recyclable, compostable, and solid waste material into transfer trucks for transport to additional processing and/or disposal facilities.

The MRF/TS would be open for waste receipt 24 hours per day, seven days per week. The MRF/TS would have a maximum capacity to process up to 3,000 tons per day (TPD) of MSW, 1,000 TPD of green waste, 1,000 TPD of construction and demolition waste, and 1,000 TPD of self-haul waste. The sum of the upper end values for each waste type equals 6,000 TPD.

In addition to the MRF/TS, on-site improvements include operations offices, administrative offices and visitor center, maintenance facility, scale houses, and a fueling facility/convenience store open to the public.

The following environmental impacts were analyzed and considered significant and unavoidable as a result of the proposed project:

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1. Air quality – The project would result in a regional cumulative operations impact given that the Basin is in nonattainment for ozone and the proposed project would exceed the regional daily emissions thresholds for ROG and NO_x, which are ozone precursors.

2. Noise – The proposed project would result in short-term construction, permanent ambient operational noise impacts on the western/northwestern border, and traffic related noise impact.

3. Traffic – As the proposed project would contribute to the existing and forecasted deficient freeway segments, the project's contribution to these cumulative traffic impacts is considered cumulatively considerable.

All other potentially significant environmental impacts would be reduced to a less than significant impact level with implementation of the Mitigation Program identified within the DEIR.

Project Variant
In the event that the Valley County Water District acquires 1.9 acres of the proposed project, the MRF/TS operations would essentially be the same as described above except that there would be no transfer truck parking. Instead, the proposed project would use sub-hauler vendors to transfer the material. The total area for the project variant would be 230,972 square feet.

COMMENTS

Tonnage
Please include the methods and calculations used to determine the maximum storage capacity for MSW, green waste, construction and demolition waste, and self-haul waste pursuant to Title 14, California Code of Regulations (14 CCR), Section 18221.6 (g). 1

Statement of Overriding Considerations
Since there will be significant and unavoidable impacts resulting from the proposed project, CalRecycle staff requests that a copy of the Statement of Overriding Considerations and Findings be forwarded as required by 14 CCR Section 15091, along with any related resolutions adopted by the decision-making body. 2

Solid Waste Facilities Permit
The Los Angeles County Department of Public Health's Solid Waste Management Program as the Local Enforcement Agency (LEA) and CalRecycle are responsible for providing regulatory oversight of solid waste handling activities, including transfer/processing facilities, relative to permitting and inspections. The permitting and regulatory requirements for transfer/processing facilities are contained in Title 14 and 27 CCR. The proposed project will require concurrence by CalRecycle in the issuance, by the LEA, of a Solid Waste Facilities Permit for the operation of a Large Volume Transfer/Processing Facility. Please contact the LEA at 626.430.5540 to discuss permit requirements for the project. 3

CONCLUSION
CalRecycle staff thanks the Lead Agency for the opportunity to review and comment on the environmental document and hopes that this comment letter will be useful to the Lead Agency preparing the DEIR and in carrying out their responsibilities in the CEQA process. 4

CalRecycle staff requests copies of any subsequent environmental documents, copies of public notices and any Notices of Determination for this project. Refer to 14 CCR Section 15094(d) that states:

If the project requires discretionary approval from any state agency, the local lead agency shall also, within five working days of this approval, file a copy of the notice of determination with the Office of Planning and Research [State Clearinghouse].

If the environmental document is certified during a public hearing, CalRecycle staff requests ten days advance notice of this hearing. If the document is certified without a public hearing, CalRecycle staff requests ten days advance notification of the date of the certification and project approval by the decision making body.

If you have any questions regarding these comments, please contact me at 916.323.0834 or by e-mail at Martin.Perez@calrecycle.ca.gov.

Sincerely,



Martin Perez
Permitting and Assistance Branch - South Unit
Waste Permitting, Compliance, and Mitigation Division
CalRecycle

cc: Virginia Rosales, Supervisor
Permitting and Assistance Branch - South Unit

Gerardo Villalobos, Chief
Department of Public Health
County of Los Angeles
5050 Commerce Drive,
Baldwin Park, CA 91706
gvillalobos@ph.lacounty.gov

Responses to Comment Letter 3

Response 3-1: The City understands that a MRF/TS is required to comply with the State standards for solid waste handling as defined in California Code of Regulations (CCR), Title 14, Chapter 5, Article 3.2, Section 18221.6 and Chapter 3, Article 6.0, where a Transfer/Processing Report is required to describe the facility operations. Contents of the Transfer/Processing Report are defined in Section 18221.6 as follows:

> *Each operator of a Large Volume Transfer/Processing Facility that is required to obtain a Full Solid Waste Facility Permit, as set forth in Title 27, Division 2, Subdivision 1, Chapter 4, Subchapter 3, Articles 2.0 - 3.2, (commencing with section 21570) shall, at the time of application, file a Transfer/Processing Report or "Report" with the EA as required in section 17403.9 of this Title. In order to maintain an existing permit, the operator must file amendments as required in section 17403.9 of this Title and re-title the document as a Transfer/Processing Report. Such amendments, or lack thereof, may become the basis for changes in the permit or for revocation of the permit. A Report shall contain the following:*
>
> *(a) name(s) of the operator, owner, and the company they represent, if applicable;*
>
> *(b) facility specifications or plans, to include: a site location map, a site map, and identification of adjacent land uses and distances to residences or structures that are nearby and are within 1000 feet of the facility property line;*
>
> *(c) schematic drawing of the building and other structures showing layout and general dimensions of the operations area, including, but not limited to, unloading, storage, loading, and parking areas;*
>
> *(d) descriptive statement of the manner in which activities are to be conducted at the facility;*
>
> *(e) days and hours the facility is to operate. If the hours of waste receipt differ from the hours of material processing, each set of hours may be stated. For facilities with continuous operations, indicate the start of the operating day for purpose of calculating amount of waste received per operating day. The operator may also indicate whether or not, and when, other activities, such as routine maintenance will take place, if those activities will occur at times other than those indicated above;*
>
> *(f) total acreage contained within the operating area;*
>
> *(g) facility design capacity including the assumptions, methods, and calculations performed to determine the total capacity;*

(h) information showing the types and the daily quantities of solid waste to be received. If tonnage was figured from records of cubic yards, include the conversion factor used;

(i) description of the methods used by the facility to comply with each state minimum standard contained in sections 17406.1 through 17419.2;

(j) anticipated volume of quench or process water, and the planned method of treatment, and disposal of any wastewater;

(k) description of provisions to handle unusual peak loading;

(l) description of transfer, recovery and processing equipment, including classification, capacity and the number of units;

(m) planned method for final disposal of the solid waste;

(n) planned method for the storage and removal of salvaged material;

(o) resume of management organization which will operate the facility;

(p) list of permits already obtained, and the date obtained or last revised.

As such, the applicant, Athens Services, will prepare and submit this report at the onset of operations, as required.

Response 3-2: Comment noted. A copy of the City's Findings and any Statement of Overriding Considerations, including any related resolutions adopted by the City, will be provided to CalRecycle following their adoption and approval by the City.

Response 3-3: Comment noted. The City acknowledges the County Department of Public Health's role as the Local Enforcement Agency (LEA) and the requirement for CalRecycle's concurrence in the issuance of the Solid Waste Facilities Permit.

Response 3-4: The City appreciates and acknowledges CalRecycle's review and comment letter. Subsequent environmental documents, findings and resolutions will be forwarded, as requested, and as mandated by CEQA.

COUNTY SANITATION DISTRICTS
OF LOS ANGELES COUNTY

1955 Workman Mill Road, Whittier, CA 90601-1400
Mailing Address: P.O. Box 4998, Whittier, CA 90607-4998
Telephone: (562) 699-7411, FAX: (562) 699-5422
www.lacsd.org

GRACE ROBINSON HYDE
Chief Engineer and General Manager

May 19, 2014

Comment Letter 4

Ref File No.: 2938784

Ms. Paula Kelly, Senior Planner
Planning Department
City of Irwindale
5050 North Irwindale Avenue
Irwindale, CA 91706

Dear Ms. Kelly:

Materials Recovery Facility and Transfer Station Project

The County Sanitation Districts of Los Angeles County (Districts) received a Draft Environmental Impact Report for the subject project on April 4, 2014. The proposed development is located within the jurisdictional boundaries of District No. 22. We offer the following comments: 1

1. Previous comments submitted by the Districts in correspondence dated June 13, 2013 (copy enclosed) still apply to the subject project with the following updated information.

2. The 18–inch diameter Baldwin Park Trunk Sewer conveyed a peak flow of 2.1 million gallons per day (mgd) when last measured in 2013.

3. The San Jose Creek Water Reclamation Plant currently processes an average flow of 73.7 mgd.

4. All other information concerning Districts' facilities and sewerage service contained in the document is current.

If you have any questions, please contact the undersigned at (562) 908-4288, extension 2717.

Very truly yours,

Grace Robinson Hyde

Adriana Raza
Customer Service Specialist
Facilities Planning Department

AR:ar

DOC: #2975542.D22

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COUNTY SANITATION DISTRICTS
OF LOS ANGELES COUNTY

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Mailing Address: P.O. Box 4998, Whittier, CA 90607-4998
Telephone: (562) 699-7411, FAX: (562) 699-5422
www.lacsd.org

GRACE ROBINSON CHAN
Chief Engineer and General Manager

June 13, 2013

Ref. File No: 2597969

Ms. Paula Kelly, Senior Planner
City Hall
City of Irwindale
5050 Irwindale Avenue
Irwindale, CA 91706

This comment letter was submitted in response to the Notice of Preparation; and therefore, previously addressed.

Dear Ms. Kelly:

Materials Recovery Facility and Transfer Station

The County Sanitation Districts of Los Angeles County (Districts) received a Notice of Preparation of a Draft Environmental Impact Report for the subject project on May 15, 2013. The proposed development is located within the jurisdictional boundaries of District No. 22. We offer the following comments regarding sewerage service:

1. The proposed project may require a Districts' permit for Industrial Wastewater Discharge. Project developers should contact the Districts' Industrial Waste Section at extension 2900, in order to reach a determination on this matter. If this permit is necessary, project developers will be required to forward copies of final plans and supporting information for the proposed developments to the Districts for review and approval before beginning project construction. For additional Industrial Wastewater Discharge Permit information, go to http://www.lacsd.org/wastewater/industrial_waste/permit.asp.

2. The wastewater flow originating from the proposed project will discharge to a local sewer line, which is not maintained by the Districts, for conveyance to the Districts' Baldwin Park Trunk Sewer, located in Ramona Parkway at Grace Avenue. This 18-inch diameter trunk sewer has a design capacity of 4.8 million gallons per day (mgd) and conveyed a peak flow of 1.0 mgd when last measured in 2009.

3. The wastewater generated by the proposed project will be treated at the San Jose Creek Water Reclamation Plant (WRP) located adjacent to the City of Industry, which has a design capacity of 100 mgd and currently processes an average flow of 76.6 mgd. Wastewater flows that exceed the capacity of the San Jose Creek WRP, and all biosolids, are diverted to and treated at the Joint Water Pollution Control Plant located in the City of Carson.

4. The expected average wastewater flow from the project site is 8,436 gallons per day. For a copy of the Districts' average wastewater generation factors, go to www.lacsd.org, Wastewater & Sewer Systems, Will Serve Program, and click on the Table 1, Loadings for Each Class of Land Use link.

Doc # 2597969.D22

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5. The Districts are authorized by the California Health and Safety Code to charge a fee for the privilege of connecting (directly or indirectly) to the Districts' Sewerage System or increasing the strength or quantity of wastewater attributable to a particular parcel or operation already connected. This connection fee is a capital facilities fee that is imposed in an amount sufficient to construct an incremental expansion of the Sewerage System to accommodate the proposed project. Payment of a connection fee will be required before a permit to connect to the sewer is issued. For a copy of the Connection Fee Information Sheet, go to www.lacsd.org, Wastewater & Sewer Systems, Will Serve Program, and click on the appropriate link. For more specific information regarding the connection fee application procedure and fees, please contact the Connection Fee Counter at extension 2727.

6. In order for the Districts to conform to the requirements of the Federal Clean Air Act (CAA), the design capacities of the Districts' wastewater treatment facilities are based on the regional growth forecast adopted by the Southern California Association of Governments (SCAG). Specific policies included in the development of the SCAG regional growth forecast are incorporated into clean air plans, which are prepared by the South Coast and Antelope Valley Air Quality Management Districts in order to improve air quality in the South Coast and Mojave Desert Air Basins as mandated by the CAA. All expansions of Districts' facilities must be sized and service phased in a manner that will be consistent with the SCAG regional growth forecast for the counties of Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Imperial. The available capacity of the Districts' treatment facilities will, therefore, be limited to levels associated with the approved growth identified by SCAG. As such, this letter does not constitute a guarantee of wastewater service, but is to advise you that the Districts intend to provide this service up to the levels that are legally permitted and to inform you of the currently existing capacity and any proposed expansion of the Districts' facilities.

If you have any questions, please contact the undersigned at (562) 908-4288, extension 2717.

Very truly yours,

Grace Robinson Chan

Adriana Raza
Customer Service Specialist
Facilities Planning Department

AR: ar

Doc #: 2577769.D22

Responses to Comment Letter 4

Response 4-1: The City acknowledges that the previously received comment letter dated June 13, 2013 was in response to the Notice of Preparation. The City appreciates the details provided regarding of the Baldwin Park Trunk Sewer capacity and the San Jose Creek Water Reclamation Plant's flow volume, and Districts' confirmation that all other information in the DEIR regarding the Districts' facilities and service is current.

Comment Letter 5

May 14, 2014

Ms. Paula Kelly, Senior Planner
City of Irwindale
Planning and Community Development Department
5050 North Irwindale Avenue
Irwindale, CA 91706

DRAFT ENVIRONMENTAL IMPACT REPORT (DEIR)
IRWINDALE MATERIALS RECOVERY FACILITY AND
TRANSFER STATION PROJECT (MRF/TS)
CITY OF IRWINDALE
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORK COMMENTS

Thank you for the opportunity to review the DEIR for the City of Irwindale. The proposed project proposes the construction and operation of a material recovery facility and transfer station with a fueling facility/convenience store. The project would be a regional facility where residential, commercial, and/or industrial municipal solid waste and recyclable materials are delivered by commercial and non-commercial haulers, and sorted and processed in one central location prior to delivery at end use distributors.

The following County of Los Angeles, Department of Public Works comments are for your consideration and relate to the environmental document only.

For specific revisions, additions, or deletions of wording directly from the project document, the specific section, subsection, and/or item along with the page number is first referenced then the excerpt from the document is copied within quotations using the following nomenclature:

> Deletions are represented by a ~~strikethrough~~.
> Additions are represented by *italics* along with an underline.
> Revisions are represented by a combination of the above.

In cases where there are several revisions or deletions of wording directly from the project document, the excerpt from the document using the above nomenclature to modify it will not be used. Instead, replacement language will be provided along with a request to delete the original section, subsection, and/or item.

General Comment:

1. Section 2.2 Project Features, page 2.0-7, states that "the Proposed Project would create a regional asset needed to address and implement a series of legislative measures over the years designed to both promote and mandate the time-certain reduction, recycling, and reuse of solid waste in California; including, but not limited to: Assembly Bill 341 (Chapter 476, Statutes of 2011); Senate Bill 1016 (Chapter 343, Statutes of 2007); and Assembly Bill 939 (Chapter 1095, Statutes of 1989)." 1

   The DEIR goes on to state "the Proposed Project, designed to enable and facilitate the separation of recyclables from solid waste, would directly assist the City, surrounding communities, and County to comply with AB 939."

   Since the San Gabriel Valley including the City of Irwindale already has adequate capacity to manage the solid waste generated within the area any statements alluding to the proposed facility having any direct bearing upon the City's compliance with AB939 should be clarified in order to be technically accurate.

2. Although Chapter 3.3 discusses mitigation measures to control odors at the project property, including having a fully enclosed facility with a negative pressure system, exhaust fans to facilitate multiple air exchanges, and misting systems with odor neutralizers, none of the mitigation measures discuss any odor impacts from the vehicles delivering material to the facility. This potential odor impact, particularly on the nearby community, needs to be fully analyzed and discussed. 2

3. The DEIR should also analyze potentially siting a permanent household hazardous waste collection center and a conversion technology facility to supplement efforts to manage waste locally, safely, and sustainably. 3

If you have any questions regarding the General comments, please contact Ms. Emiko Thompson of Environmental Programs Division at (626) 458-3521 or ethomp@dpw.lacounty.gov.

Environmental Justice:

1. Section 3.6.4, Conclusions, page 3.6-10: The following statement should be adequately substantiated in the DEIR in regards to Environmental Justice: "the Proposed Project will not have any disproportionate effects on any disadvantaged population within the Los Angeles region or among local communities, and does not raise environmental justice issues beyond those attributable to the region as a whole." 4

There are five existing materials recovery and/or recycling facilities located within the area generally bordered by the San Gabriel River (605) Freeway on the west, Foothill Boulevard on the north, Azusa Avenue on the east, and the Pomona (60) Freeway to the south of the proposed project site with a combined total Solid Waste Facility permitted capacity of nearly 18,500 tons per day (tpd). Namely, the five facilities are: Athens Services (in the County unincorporated area of Avocado Heights), Allan Company (City of Baldwin Park), Waste Management (City of Azusa), Grand Central Station (City of Industry), and the Puente Hills Materials Recovery Facility (County unincorporated area of North Whittier). 4 con't

The proposed project together with the five existing facilities in the area will increase the combined total capacity to 24,500 tpd. Considering this capacity exceeds the amount of waste that is generated in the San Gabriel Valley environmental justice issues would need to be addressed especially since single-family homes are located as close as 425 feet from the proposed project site.

If you have any questions regarding the Environmental Justice comment, please contact Ms. Emiko Thompson of Environmental Programs Division at (626) 458-3521 or ethomp@dpw.lacounty.gov.

Water Quality and Hydrology:

1. Section 3.13.1, Existing Environment, Conventional Water Quality Data, page 3.13-2: 5

   a. Modify the first sentence as follows: "The Los Angeles County Department of Public Works routinely conducts conventional water quality testing of ~~both surface~~ and groundwater within the City."

      Los Angeles County Department of Public Works conducts water quality sampling in accordance with the National Pollutant Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Permit requirements along the San Gabriel River and its tributary drainage systems.

   b. Revise the context of the second sentence: "Analytical results indicate that none of these waters currently exceed federal and State drinking water standards."

      The stormwater samples collected are analyzed in accordance with the NPDES MS4 Permit requirements which differ from the drinking water

standards. Therefore, the above statement is providing misrepresented information. 5 con't

2. Section 3.13.2, Regulatory Setting, Los Angeles Regional Water Resources Control Board – Porter-Cologne Water Quality Control Act, page 3.13-6: 6

   Revise the context of the first sentence of the second paragraph: "The County of Los Angeles Department of Public Works prepared a Municipal Separate Storm Sewer System National Pollutant Discharge Elimination System (NPDES) Permit (also referred to as "MS4 Permit")"

   The NPDES MS4 Permit, which became effective on December 28, 2012, was developed by the Los Angeles Regional Water Quality Control Board with input from all the permittees affected by the NPDES MS4 Permit. The County of Los Angeles and Los Angeles County Flood Control District are two of 86 MS4 permittees. Therefore, the above statement is providing misrepresented information.

3. Section 3.13.4, Impact Analysis and Mitigation Program, Threshold WQ-5, page 3.13-15: 7

   a. Provide the design capacity (flow rate) for the 54 inch storm drain referenced under the subject section and show the alignment on the Conceptual Grading Plan (Exhibit 3.13-2).

   b. The environmental document should indicate the stormwater runoff from the property; transported through the subject 54 inch storm drain; and released into the Los Angeles County Flood Control District facilities, must meet the stormwater quality requirements set forth in the NPDES MS4 Permit.

If you have any questions regarding the Water Quality and Hydrology comments, please contact Mr. Armond Ghazarian of Watershed Management Division at (626) 458-7149 or aghazar@dpw.lacounty.gov.

If you have any other questions or require additional information, please contact Juan Sarda of Land Development Division at (626) 458-4921 or jsarda@dpw.lacounty.gov.

JS:
P:\ldpub\SUBPCHECK\Plan Checking Files\Zoning Permits\NonCounty Projects\City of Agoura Hills - Roadside Drive Bridge Widening Over Medea Creek\CEQA\2014-03-18 Subittal\Division Comments\2014-4-7, CITY OF AGOURA HILLS, RB WIDENING PROJECT, IS-MND, DPW CO.docx

Response to Comment Letter 5

Response 5-1: The EIR does explicitly clarify the role of the proposed facility bearing upon the City's compliance with AB939 and related State policy directives and objectives. As stated on page 2.0-8 of the Draft EIR:
"*AB 939 requires every city and county in the State to divert at least 50 percent of wastes generated in their jurisdiction from going to a landfill. The purpose of AB 939 is to "reduce, recycle, and reuse solid waste generated in the State to the maximum extent feasible." The bill imposes fines up to $10,000 per day on jurisdictions (cities and counties) for non-compliance. It is, therefore, a City and County objective to comply with AB 939 by maximizing the capacities of existing landfills in the County through the use of waste disposal options. The Proposed Project, designed to enable and facilitate the separation of recyclables from solid waste, would directly assist the City, surrounding communities, and County to comply with AB 939*."

In addition, the State is currently targeting a waste reduction goal of 75 percent (AB 341). The City of Irwindale desires to participate in the reduction, recycling, and reusing of solid waste generated in the State to the maximum extent feasible, and by doing so, is compliant with AB 939. Further, it is not a conflict with other facilities in the San Gabriel Valley to add additional "adequate capacity". Waste management and recycling in the State of California is a competitive market activity, and the proposed facility in the City of Irwindale will be one of many facilities competing to serve local and regional communities in pursuit of attainment of the State's 75 percent waste reduction goal.

Response 5-2: The potential odor impact has been fully analyzed and discussed in the EIR, and in response to this comment, the text in the Draft EIR was revised in the Recirculated Draft EIR on page 3.3-59, adding additional discussion to clarify odor reduction measures as follows (new text is underlined and ~~strikethrough~~ is used for deleted text):

"There has been concern about odors from trucks traveling to and from the Proposed Project site. As identified in the Roadway Litter Prevention On-Site Management Plan, all incoming and outgoing hauling vehicles are required to be either fully covered and/or tarped or be a fully enclosed vehicle/trailer. While this is a litter prevention plan it would also reduce odors from vehicles travelling to and from the Proposed Project site. Furthermore, upon inquiry from the City based on comments on the DEIR, Athens Services has informed the City EIR preparers that odors from trucks travelling to and from Athens' other MRF sites have not been a source of historical complaints. (Loughnane, 2014**)**. Additionally, the City has not received odor complaints in the past from residents related to collection trucks using City streets. The City has no other basis or identified any evidence to support a potential impact from odors related to trucks travelling to the Proposed Project Site. Therefore, it is not foreseeable that there will be a potential impact related to odors and no mitigation measures are required."

Response 5-3: The EIR does include assessment of a reasonable range of alternatives as required by CEQA, including examination of seven alternative locations. The Recirculated DEIR further

includes analysis of two new alternatives in response to comments received on the Draft EIR, including a modified "Reduced Tonnage Capacity Alternative" (Chapter 5.0, section 5.6) and a "Source-Separated MRF Alternative" (Chapter 5.0, section 5.7**).** CEQA requires that an EIR describe a range of reasonable alternatives to the project or to the location of the project that could feasibly avoid or lessen significant environmental impacts while substantially attaining the basic objectives of the project (State CEQA Guidelines §15126.6). A permanent household hazardous waste collection center and a conversion technology facility would not avoid or lessen any significant environmental impacts of the proposed project, or attain any of the basic objectives of the proposed project, and is therefore not considered by the City to be a reasonable or feasible alternative.

Response 5-4: The discussion of environmental justice is presented in Chapter 3.6 of the DEIR, and does support the conclusion that the proposed project will not disproportionately affect any disadvantaged population. The proposed project is a state-of-the-art recycling center located in an area that supports a wide range of long-established industrial land uses and activities, many of which are located in closer proximity to residential areas, and some of which operate adjacent to residential uses. The combined total capacity for related facilities in the region is not an environmental justice issue. Waste management and recycling in the State of California is a competitive market activity, and the proposed facility in the City of Irwindale will be one of many facilities competing to serve local and regional communities in pursuit of attainment of the State's 75 percent waste reduction goal.

We also note that there are no requirements within CEQA that require a Lead Agency to consider consider environmental justice. CEQA focuses on the potentially significant adverse impacts of a proposed project to the physical environment (State CEQA Guidelines §15360). However, in response to initial project scoping, the City determined that inclusion of this analysis in the environmental review process conducted for the proposed project was warranted following guidelines of the California Environmental Protection Agency.

Response 5-5: The commenter provides suggested text. The text in the Recirculated Draft EIR on page 3.13-2 is revised as follows (new text is <u>underlined</u> and ~~strikethrough~~ is used for deleted text):

"The Los Angeles County Department of Public Works routinely conducts conventional water quality testing of ~~both surface and~~ groundwater within the City. ~~Analytical results indicate that none of these waters currently exceed federal or State drinking water standards~~."

Response 5-6: The commenter provides suggested text. The text in the Recirculated Draft EIR on page 3.13-6 is revised as follows (new text is <u>underlined</u> and ~~strikethrough~~ is used for deleted text):

"~~The County of Los Angeles Department of Public Works prepared a Municipal Separate Storm Sewer System National Pollutant Discharge Elimination System (NPDES) Permit (also referred to~~

~~as a "MS4 Permit") This Permit was adopted by the Los Angeles Regional Water Quality Control Board on November 8, 2012, and became effective December 28, 2012. In addition to the Los Angeles County Flood Control District and County, the Permit is also issued to 84 municipalities within the County, including the City of Irwindale.~~

"The NPDES MS4 Permit, which became effective on December 28, 2012, was developed by the Los Angeles Regional Water Quality Control Board with input from all the permittees affected by the NPDES MS4 Permit. The County of Los Angeles and Los Angeles County Flood Control District are two of 86 MS4 permittees."

Response 5-7: The estimated maximum discharge from the site through the 54-inch storm drain is approximately 25 cubic feet per second (cfs) for a 100-year 60-minute storm event (1.64 inches). Page 3.13-12 of the RDEIR states: "The operational phase of the Proposed Project would require an NPDES Industrial Storm Water Permit. This permit would require the development of an on-site operational SWPPP and associated BMPs to control pollutants at the site and to prevent them from leaving the site to local stormwater drains."

The City appreciates the agency's participation in the public review process.

COUNTY OF LOS ANGELES
Public Health

JONATHAN E. FIELDING, M.D., M.P.H.
Director and Health Officer

CYNTHIA A. HARDING, M.P.H.
Chief Deputy Director

ANGELO J. BELLOMO, REHS
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Comment Letter 6

May 15, 2014

Ms. Paula Kelly, Senior Planner
City of Irwindale Planning Department
5050 Irwindale Ave.
Irwindale, CA 91706

Dear Ms. Kelly:

SUBJECT: COMMENTS ON DRAFT ENVIRONMENTAL IMPACT REPORT (DEIR) FOR A PROPOSED MATERIAL RECOVERY FACILITY AND TRANSFER STATION IN THE CITY OF IRWINDALE SCH#2013051029

The Los Angeles County Department of Public Health, Solid Waste Management Program, acting as Local Enforcement Agency (LEA), appreciates the opportunity to review and provide comments on the DEIR for Irwindale Material Recovery Facility and Transfer Station (MRF/TS). The following is a description of the project as described in the DEIR.

Proposed Project Description

Athens Services is proposing the construction and operation of a fully enclosed MRF/TS along with a Fueling Facility and Convenience Store in the City of Irwindale. The project site is addressed as 2200 Arrow Highway, and it is located at the northwestern intersection of Live Oak Avenue and Arrow Highway. The site is approximately 17.22 acres and is currently zoned for heavy manufacturing and is designated for commercial land use in the City's General Plan. The MRF/TS is proposed to be open 24 hours per day, seven days a week with three full-time working shifts.

The proposed MRF/TS would receive, process and transfer mixed municipal solid waste, green waste, construction and demolition materials, and waste hauled in by self-haulers. The proposed project would have a maximum throughput of up to 6,000 tons per day (tpd) based upon estimated averages of 3,000 tpd of municipal solid waste, 1,000 tpd of green waste, 1,000 tpd of construction & demolition materials and 1,000 tpd of self-haul waste. According to the traffic impact analysis report, the project is anticipated to generate a net total of approximately 8,333 passenger car equivalents (PCE) trip-ends per day, with 664 a.m peak hour trips and 664 p.m peak hour trips.

Comments

1. General Comments.
   a. Site Plan: Site plans/drawings should be legible, clearly detailed and printed on 11"x17" size paper. The exhibits provided in the Draft EIR are illegible (Exhibit 2-4 through 2-13).
   b. Page 2.0-17 states that the sole access for transfer trucks is from Arrow Hwy, but there is no mention of collection and self-haul vehicles.

1

c. Contradicting statements on page 2.0-16 and 3.3-46 last paragraphs, regarding the removal time (24/48) of putrescible material/residual from the site. 1 con't

2. Traffic.
   a. Traffic circulation exhibit is illegible. The traffic circulation exhibit is illegible and a clear determination of the traffic flow for all vehicles entering/exiting the site cannot be made. 2
   b. Waste vehicles leaving the facility will have to drive between the parking lot and the operation's office to exit via Arrow Highway. This area seems somewhat narrow to accommodate all the traffic passing through. What safety measures will be implemented to ensure that there are no potential safety issues with trucks/vehicles exiting the building, the load out tunnel and the vehicles parked and/or pedestrians walking to and from the MRF operation offices?

Conclusion

The LEA requests copies of any subsequent and/or related environmental documents, Notices of Determination, etc., for the proposed project. In addition, the LEA requests notification of any public hearings pertaining to the project at least ten days in advance. Documents/notices may be mailed to the Solid Waste Management Program address shown above, or emailed to me at dlugo@ph.lacounty.gov. In addition, a Solid Waste Facility Permit (SWFP) issued by the LEA and concurred with by The State of California Department of Resources Recycling and Recovery (CalRecycle) must be obtained for the proposed new operation. 3

Should you have any questions regarding the comments or information contained in this letter, please feel free to contact me at (626) 430-5540.

Sincerely,

Dorcas (Dee) Hanson-Lugo
Environmental Health Specialist III
LA County Public Health – Environmental Health
Solid Waste Management Program – Permitting Unit
5050 Commerce Drive
Baldwin Park, CA 91706

cc: Gerardo Villalobos (electronic copy)
Martin Perez, CalRecycle (electronic copy)

Response to Comment Letter 6

Response 6-1: In response to this comment on the DEIR, the Recirculated Draft EIR reproduced the Project Description exhibits in 11"x17" format for improved clarity.

In response to this comment, the text in the Draft EIR was revised in the Recirculated Draft EIR on page 2.0-16 as follows (new text is underlined and ~~strikethrough~~ is used for deleted text):

The Recirculated Draft EIR revised this sentence to delete the reference to transfer trucks. The Recirculated Draft EIR page 2.0-16 reads: "*Sole access for ~~transfer~~ trucks to and from the site would be to and from Arrow Highway, and directed towards Interstate 605 for regional transport, utilizing Irwindale roadways*."

The Recirculated Draft EIR revised this sentence regarding the removal time of materials. The Recirculated Draft EIR page 2.0-16 reads: "All vehicles loaded with putrescible residual materials will be removed from the site within ~~of 24~~ 48-hours of receipt of the residual materials or less as required by regulations or permit requirements of being loaded, and will be stored inside the MRF building for odor control."

Response 6-2: The distributed project trips entering and exiting the site during the AM and PM peak hours are illustrated on DEIR Exhibit 3.12-18 and Exhibit 3.12-19 for all study area intersections. The peak hour project traffic flows for all vehicles entering/exiting the site are also shown on Exhibit 3.12-21 for all study area roadway segments.

Mitigation Measure T-6 in the Recirculated Draft EIR [referenced as T-7 in the DEIR] includes design features for on-site project turning movements.

Response 6-3: The City acknowledges the County Department of Public Health's role as the Local Enforcement Agency (LEA) and the requirement for CalRecycle's concurrence in the issuance of the Solid Waste Facilities Permit. Subsequent environmental documents, findings and resolutions will be forwarded, as requested, and as mandated by CEQA following their adoption and approval by the City.

The City appreciates the agency's participation in the public review process.

COUNTY OF LOS ANGELES
DEPARTMENT OF PARKS AND RECREATION
"Parks Make Life Better!"
Russ Guiney, Director John Wicker, Chief Deputy Director

May 15, 2014 Sent via e-mail: paulakelly@ci.irwindale.ca.us

Ms. Paula Kelly
Senior Planner
City of Irwindale
5050 North Irwindale Avenue
Irwindale, CA 91706

Comment Letter 7

Dear Ms. Kelly,

NOTICE OF AVAILABILITY OF A DRAFT ENVIONMENTAL IMPACT REPORT IRWINDALE MATERIALS RECOVERY FACILITY AND TRANSFER STATION PROJECT

The Notice of Availability of the Draft Environmental Impact Report for the Irwindale Materials Recovery Facility and Transfer Station Project has been reviewed for potential impacts on the facilities of this Department. The Santa Fe Dam Recreation Area at 15501 East Arrow Highway, Irwindale 91706 is operated by this Department. Please see our comments below:

AESTHETICS

The proposed project will degrade the quality of existing viewshed from the top of Santa Fe Dam. On Exhibit 3.2-9, the existing vacant land provides trail users visual relief with an unobstructed view of the basin with the San Gabriel Mountains in the background. On Exhibit 3.2-11, the proposed project alters the view of the existing vegetated landscape. Although landscaping would be developed to screen the site perimeter and throughout the MRF/TS facility, it will not alleviate the visual impact from top of the Dam, which is higher than the Project site. Mitigation measures should include more landscaping such as ivy-covered walls, green rooftops and more trees so the project is less visible from the trail. 1

AIR QUALITY

As indicated in Table ES-2 Potentially Significant Effects and Mitigation Program, in page ES-19, the proposed project shall ensure compliance through inclusion in the contractor specifications regarding construction activities that may result in emissions of dust and particular matter (PM), which may affect sensitive park patrons, including the elderly, children, persons with pre-existing respiratory or cardiovascular illness, athletes and others who engage in frequent exercise, especially those who use the trail on top of the dam. 2

BIOLOGICAL RESOURCES

The environmental document should analyze the project's potential impact on the wildlife at Santa Fe Dam. The proposed project site is in close proximity to the County designated Significant Ecological Area (SEA) "Santa Fe Dam Floodplain". This SEA encompasses Coastal Sage Scrubs which support migration of birds, particularly Federally protected least Bell's vireo and coastal California gnatcatcher. While coastal sage scrubs will not be affected by the proposed project, the project proposed could potentially have significant air quality and noise impacts on the two federally protected bird species in the area during breeding season. Mitigation measures should include that the construction period will avoid critical lifecycles such as the breeding season for listed and sensitive species. 3

NOISE

The construction of the proposed project will generate increased noise levels adversely affecting sensitive receptors such as the elderly and children who use the Park. The proposed project in operation will result in more vehicular noise in close proximity to the Flood Control Basin. This may adversely impact wildlife in the area as well as users of the multi-use trail. Mitigation measures should include that the construction period will avoid critical lifecycles such as the breeding season for listed and sensitive species and that construction is scheduled during off peak use of the recreation facilities. 4

RECREATION

The proposed project will negatively impact the operation of the trail on top of the dam at the Santa Fe Dam Recreation Area. In particular, the potential aesthetics, air quality and noise impacts described above could discourage park patrons from visiting the Recreation Area and compel them to travel further to other recreational facilities. 5

Thank you for the opportunity to participate in this review process. For any questions or inquiries, please contact Jui Ing Chien at (213) 351-5129 or jchien@parks.lacounty.gov.

Sincerely,

Kathline King

Kathline J. King
Chief of Planning

JR: JIC: RE/ Response to Irwindale Materials Recovery Facility and Transfer Station EIR

c: Parks and Recreation (N. E. Garcia, J. Rupert, J. Chien, C. Graham, J. Norcia)

Response to Comment Letter 7

Response 7-1: The Draft EIR discussed and analyzed Aesthetics in Chapter 3.2., and does contain thorough assessment of visual resources and potential effects on aesthetics, including assessment of views from the Santa Fe Dam. The analysis concludes that with project implementation, the view from the top of the Santa Fe Dam will be consistent with the surrounding built environment that includes industrial and commercial operations in the cities of Irwindale and Baldwin Park. The new facility lies far below the top of the dam, and has no potential to obstruct any views of the basin or San Gabriel Mountains from any point on the trails system at the top of the dam. The new facility will be fully enclosed with fencing and perimeter landscaping that will provide a visible improvement over the decades-old row of industrial land uses along the south side of Live Oak Avenue that dominate the view when looking down from the top of the dam.

Response 7-2: See Response to Comment 13-4 related to modifications to the mitigation measures and the efficiency of the emission reductions associated with combustion and fugitive emissions from construction and operations.

Within the air quality analysis, sensitive receptors within a quarter-mile of the project site (threshold sited within CARB *Air Quality and Land Use Handbook* as distance of concern) include the recreational users within the Santa Fe Dam bike/pedestrian path (approximately 480 feet from the nearest property line). To include results associated with the health risk assessment and recreational users at the Santa Fe Recreational Area, the text in the Draft EIR was revised in the Recirculated Draft EIR on page 3.3-57 as follows (new text is <u>underlined</u> and ~~strikethrough~~ is used for deleted text):

"Exposure to non–carcinogenic substances would be significant if the Hazard Index (HI) exceeds 1.0. The Hazard Index is the ratio of a hazardous air pollutant concentration to its Reference Concentration, or safe exposure level. If this "hazard index" exceeds one, people are exposed to levels of hazardous air pollutants that may pose non-cancer health risks. The maximum chronic hazard index is <u>less than 0.01</u> ~~0.04~~ and thus less than significant. The maximum acute hazard index<u>; including the recreational user within the Santa Fe Dam area,</u> is ~~0.16~~ <u>less than 0.01</u> and thus less than significant."

Response 7-3: The EIR does include full assessment of the proposed project's potential effects on biological resources (Chapter 3.4). The project site is physically separated from the habitat areas identified in the comment by the massive Santa Fe Dam, and the active recreational areas behind the dam and closest to the project site. Project operations have no potential to impact any of the Santa Fe Dam habitat areas or the species that are active within them. Mitigation Measure BIO-1 does require pre-construction surveys for any nesting birds that may occupy trees surrounding the site in compliance with State regulations protecting nesting birds and raptors, and limits the timing of initial construction activities that require on-site vegetation trimming and removal.

Response 7-4: The massive Santa Fe Dam separating the proposed project site from the Flood Control Basin park area acts as the ultimate noise barrier and precludes any effect of noise from the proposed project site on "sensitive receptors such as the elderly and children who use the Park." The maximum construction noise level of 70 dBA from the project would not change the maximum noise level on the trail which is already influenced by traffic on Arrow Highway and Live Oak

Avenue, and the variety of commercial and industrial operations located along those roadways. Construction activities could contribute some additional noise spikes locally, but noise measurement data recorded maximum noise levels for the existing ambient environment along the multi-use trail of 67.9 and 71.2 dBA, Lmax. Construction noise will not have the potential to impact breeding birds because the project site is 700 feet from the vegetated areas of the recreation area, with Arrow Highway and the Santa Fe Dam lying between the project site and the recreation area. Typical buffer areas for breeding birds are 250 to 500 feet and take into consideration tolerance for human disturbance. Any species wanting to breed within 500 feet of the project construction site would have to be breeding near the Arrow Highway and would already have to be very tolerant of human noise disturbance.

Response 7-5: The proposed project has no potential to adversely impact the operation of the trail on top of the Santa Fe Dam as explained in responses 7-1, 7-2, and 7-4 above. The site is separated from the Flood Control Basin recreation area behind the Santa Fe Dam by the dam itself, and proposed project construction and operations will be virtually undetectable to park patrons.

The City appreciates the agency's participation in the public review process.

LOS ANGELES COUNTY
SOLID WASTE MANAGEMENT COMMITTEE/
INTEGRATED WASTE MANAGEMENT TASK FORCE
900 SOUTH FREMONT AVENUE, ALHAMBRA, CALIFORNIA 91803-1331
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GAIL FARBER, CHAIR
MARGARET CLARK, VICE-CHAIR

Comment Letter 8

May 14, 2014

Ms. Paula Kelly, Senior Planner
City of Irwindale
5050 North Irwindale Ave
Irwindale, CA 91706

Dear Ms. Kelly:

DRAFT ENVIRONMENTAL IMPACT REPORT
PROPOSED IRWINDALE MATERIALS RECOVERY FACILITY AND TRANSFER STATION PROJECT- STATE CLEARINGHOUSE NO. 2013051029

Please note this correspondence supersedes the previously sent correspondence dated May 9, 2014.

The Los Angeles County Solid Waste Management Committee/Integrated Waste Management Task Force (Task Force) appreciates the opportunity to comment on the Draft Environmental Impact Report (DEIR) for the proposed Irwindale Materials Recovery Facility and Transfer Station (MRF/TS), which was released for public comment and review on April 2, 2014. Based on our review of the DEIR, we have the following comments:

- Section 3.6 of the DEIR (page 3.6-10) states "the Proposed Project will not have any disproportionate effects on any disadvantaged population within the Los Angeles region or among local communities, and does not raise environmental justice issues beyond those attributable to the region as a whole." There are five existing materials recovery and/or recycling facilities located within the area generally bordered by the San Gabriel River (605) Freeway on the west, Foothill Boulevard on the north, Azusa Avenue on the east, and the Pomona (60) Freeway to the south of the proposed project site with a combined total Solid Waste Facility permitted capacity of nearly 18,500 tons per day (tpd). Namely, the five facilities are: Athens Services (in the County unincorporated area of Avocado Heights), Allan Company (City of Baldwin Park), Waste Management (City of Azusa), Grand Central Station (City of Industry), and the Puente Hills Materials Recovery Facility (County unincorporated area of North Whittier). The proposed project together with the five existing facilities in the area will increase the combined total capacity to 24,500 tpd. Considering this capacity exceeds the amount of waste that is generated in the San Gabriel Valley environmental justice issues would need to be addressed especially since single-family homes are located as close as 425 feet from the proposed project site. The DEIR states

1

the City is sensitive to the environmental effects of projects on the local community. This statement needs to be substantiated in regards to environmental justice. 1 con't

- It is recommended that the DEIR also analyze potentially siting a permanent household hazardous waste collection center and a conversion technology facility to supplement efforts to manage waste locally, safely, and sustainably. 2

- Section 2.2 – Project Features, states "the Proposed Project would create a regional asset needed to address and implement a series of legislative measures over the years designed to both promote and mandate the time-certain reduction, recycling, and reuse of solid waste in California; including, but not limited to: Assembly Bill 341 (Chapter 476, Statutes of 2011); Senate Bill 1016 (Chapter 343, Statutes of 2007); and Assembly Bill 939 (Chapter 1095, Statutes of 1989)." The DEIR goes on to state "the Proposed Project, designed to enable and facilitate the separation of recyclables from solid waste, would directly assist the City, surrounding communities, and County to comply with AB 939." Since the San Gabriel Valley including the City of Irwindale already has adequate capacity to manage the solid waste generated within the area, any statements alluding to the proposed facility having any direct bearing upon the City's compliance with AB 939 should be clarified in order to be technically accurate. 3

- Although Chapter 3.3 discusses mitigation measures to control odors at the property, including having a fully enclosed facility with a negative pressure system, exhaust fans to facilitate multiple air exchanges, and misting systems with odor neutralizers, none of the mitigation measures discuss any odor impacts from the vehicles delivering material to the facility. This potential odor impact, particularly on the nearby community, needs to be fully analyzed and discussed. 4

If you have any questions, please contact Mr. Mike Mohajer of the Task Force at MikeMohajer@yahoo.com or (909) 592-1147.

Sincerely,

Margaret Clark

Margaret Clark, Vice-Chair
Los Angeles County Solid Waste Management Committee/
Integrated Waste Management Task Force and
Council Member, City of Rosemead

KV:ts
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cc: California Department of Resource Recycling and Recovery
Los Angeles County Department of Public Health, LEA (Gerardo Villalobos)
Each Member of the Task Force and the Facility & Plan Review Subcommittee

Responses to Comment Letter 8

Response 8-1: The discussion of environmental justice is presented in Chapter 3.6 of the DEIR, and does support the conclusion that the proposed project will not disproportionately affect any disadvantaged population. The proposed project is a state-of-the-art recycling center located in an area that supports a wide range of long-established industrial land uses and activities, many of which are located in closer proximity to residential areas, and some of which operate adjacent to residential uses. The five facilities cited in the comment are separated from one another by substantial distances (except for the Allen Company facility located less than 100 feet from residential uses they are separated by several miles) with numerous intervening commercial and industrial uses, and are not concentrated or operated in such a manner that could impact any single community or residential area. Each is a self-contained fenced operation subject to a variety of environmental controls and regulations. Further, the proposed project will not cause any new waste to be generated in the region, and "combined total capacity" is not an applicable concept that has any relation to environmental justice issues. Waste management and recycling in the State of California is a competitive market activity, and the proposed facility in the City of Irwindale will be one of many facilities competing to serve local and regional communities in pursuit of attainment of the State's 75 percent waste reduction goal.

Response 8-2: The EIR does evaluate a reasonable range of alternatives as required by CEQA, including alternatives that may reduce some of the adverse effects of the project while allowing substantial attainment of basic project goals and objectives; (State CEQA Guidelines §15126.6). The proposed MRF/TS project is a substantially different operation that a household hazardous waste collection center and a conversion technology facility, and although there may be a need for such facilities within the region, that type of facility would not avoid or lessen any significant environmental impacts of the proposed project, or attain any of the basic objectives of the proposed project, and is therefore not considered by the City to be a reasonable or feasible alternative to the Proposed Project.

Response 8-3: As stated page 2.0-8 of the Draft EIR: "*AB 939 requires every city and county in the state to divert at least 50 percent of wastes generated in their jurisdiction from going to a landfill. The purpose of AB 939 is to "reduce, recycle, and reuse solid waste generated in the State to the maximum extent feasible." The bill imposes fines up to $10,000 per day on jurisdictions (cities and counties) for non-compliance. It is, therefore, a City and County objective to comply with AB 939 by maximizing the capacities of existing landfills in the County through the use of waste disposal options. The Proposed Project, designed to enable and facilitate the separation of recyclables from solid waste, would directly assist the City, surrounding communities, and County to comply with AB 939*."

In addition, the State is currently targeting a waste reduction goal of 75 percent (AB 341). The City of Irwindale desires to participate in the reduction, recycling, and reusing of solid waste generated in the State to the maximum extent feasible, and by doing so, is compliant with AB 939. Further, "capacity" is not an applicable concept since waste management and recycling in the State of California is a competitive market activity, and the proposed facility in the City of Irwindale will be one of many facilities competing to serve local and regional communities in pursuit of attainment of the State's 75 percent waste reduction goal.

Response 8-4: In response to this comment (and comments received from the County Department of Public Works), see Response to Comment 5-2.

President
Lenet Pacheco

Vice President
Margarita Vargas

Directors
Alfonso "Al" Contreras
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General Manager
Lynda Noriega

General Counsel
Lemieux & O'Neill

www.vcwd.org

May 13, 2014

Comment Letter 9

Ms. Paula Kelly, Senior Planner
City of Irwindale
5050 N Irwindale Avenue
Irwindale, Ca 91706

Re: Comments to the City of Irwindale Draft Environmental Impact Report for the Proposed Irwindale Materials Recovery Facility and Transfer Station Dated April 2014 (State Clearinghouse Number 2013051029)

Ms. Kelly,

On behalf of the Board of Directors, the residents, and the communities we serve, Valley County Water District (District) commends the stewardship and efforts of the City of Irwindale in the completion of the draft Environmental Impact Report (DEIR) for the proposed Irwindale Materials Recovery Facility and Transfer Station (MRF/TS). As submitted in the comment letter to the City of Irwindale on July 12, 2013 in response to the Environmental Impact Report Scoping Meeting, there were five primary concerns of the District with respect to its current water system facilities and its proposed water system improvements, for which the District requested special analyses be completed as a means of addressing each concern.

A thorough review of the DEIR shows that the City of Irwindale has completed the requested analyses to address the concerns posed by the District. Below outlines the specific concerns submitted by the District, including comments in response to the analyses completed as part of the DEIR process:

Concern 1: Planned mitigation efforts related to odor control capabilities for management of the air quality discharged from the MRF/TS.

Comments: Chapter 3.3 Air Quality / Greenhouse Houses / Odors / Health Risk Assessment of the DEIR provides a comprehensive list of twelve (12) mitigation efforts to control construction impacts to air quality, emissions, odors, and greenhouse gases. Furthermore, a review of the Odor Control Program included as Appendix B within the On-Site Management Plan outlines procedures for odor containment within the building, which would be filtered through carbon vessels for adsorption prior to atmosphere release. In addition, it also explains that fugitive dust would be controlled inside the building and outside the facility. An additional mitigation measure outlined in the DEIR includes processes for filing complaints related to odor emissions from the MRF/TS. 1

The District understands that each mitigation measure, as referenced in Chapter 3.3 and included as Appendix B within the On-Site Management Plan related to the Odor Control Program, is administered by Federal, State and local regulations, policies and guidelines, including the South

Coast Air Quality Management District, which the District supports as a means of ensuring that all requirements are implemented and maintained. The District further requests that the City of Irwindale effectively implement and execute any and all means necessary, including the twelve mitigation efforts outlined as part of Chapter 3.3, to properly manage the air quality discharged from the MRF/TS, which will ensure that the District can continue to meet the State of California Department of Public Health (CDPH) secondary water quality standards, including taste and odor. Also, the District appreciates the process included for filing complaints, which appears to provide a means of due process should the need to address issues related to the protection of current water system facility air intakes and ventilation systems be realized.

In addition, page 3.3-11 of the DEIR briefly discusses the South Coast Air Quality Management District Rule 410 (Rule 410) with respect to odor impacts. The discussions pertain to requirements for required design features and equipment for materials recovery facilities and transfer stations. However, the odor analysis does not disclose that Rule 410 states in "Requirements for New and Modified Facilities" that prior to commencing operations at a new facility, the owner or operator of a new facility with permitted throughput greater than 1,000 tons per day shall: ". . . demonstrate that the facility is located greater than 1,000 feet from any property zoned for residential or mixed land use, or designated as a site for a school or a school under construction, measured from the side of the odor generating source located nearest to the area zoned for residential or mixed land use or school to the closest property line of that receptor." Since there are residential uses within 325 feet of the project site, it is assumed that there is property within 1,000 feet that is zoned for residential land use and that the proposed MRF/TS would therefore be in violation of Rule 410. It also seems reasonable to assume that the specifications of Rule 410 that are designed to reduce odors to an acceptable level at a distance of 1,000 feet from a materials recovery facility or transfer station may not be adequate to reduce impacts at lesser distances. The DEIR should be revised to disclose this regulation, to provide an adequate assessment of potential odor impacts, and to review mitigation efforts accordingly.

1 con't

Concern 2: Planned mitigation efforts for the increase in vehicular traffic as related to the management of the surrounding air quality and the management of traffic flows in the vicinity of the MRF/TS.

Comments: Within the DEIR Executive Summary, three *Significant Unavoidable Adverse Impacts* were identified, which included air quality, noise, and traffic. The District completed a thorough review of the Air Quality Data Report and the Health Risk Assessment contained in Appendix C of the DEIR in an effort to understand the mitigation efforts for managing air quality in and around the MRF/TS. It is understood that reactive organic gases (ROG) and oxides of nitrogen (NOx) are related to combustion engine emissions. All of the analyses in the assessment are centered on vehicle emissions, which the District deems should pose no increased risk to the current water system facilities over and above the currently identified risks. Also, there appear to be no contaminates of concern directly associated with the MRF/TS recycling operations, including the increase in vehicular traffic, that could potentially become airborne and have an adverse effect on the current water system facilities. However, as mentioned above, the District urges the City of Irwindale to effectively execute any and all means necessary to properly manage the air quality related to the increased vehicular traffic in and around the MRF/TS.

2

In addition, the District completed a thorough review of the Traffic Impact Assessment, included as Appendix G to the DEIR. The primary focus of the review was to ascertain impacts to the ability of District employees and representatives to access the current water system facilities and to maneuver through the service area for scheduled, routine, or unforeseen emergency maintenance of the current water system facilities. Based on the information provided in the Traffic Impact

Assessment, a vast majority of the traffic concerns were centered on the Interstate 605 freeway, with additional impacts identified on the north side of the MRF/TS from the Interstate 605 freeway along Arrow Highway. Also, minor impacts were identified for Live Oak Avenue at Baldwin Park Boulevard and for Arrow Highway south of the new MRF/TS east entrance. The District continues to be concerned with the increase in vehicular traffic in and around the MRF/TS, specifically along Arrow Highway and at the intersection of Baldwin Park Boulevard and Live Oak Avenue, as the District currently maintains water facilities in the general area. The increased traffic will require the District to provide additional precautions and safety measures to access current water system facilities for any scheduled, routine, or unforeseen emergency maintenance activities. The District further requests and encourages the City of Irwindale to effectively implement and execute any and all means necessary, including the improvements outlined in Chapter 3.12 as Mitigation Measures T-3 to T-7, to properly handle, manage, and mitigate the traffic impacts with regard to MRF/TS access off of Arrow Highway, Baldwin Park Boulevard, and Live Oak Avenue. 2 con't

Concern 3: Planned mitigation efforts related to the management of pests and pest confinement within the MRF/TS.

Comments: Chapter 2.0 Project Description within the DEIR, specifically the section describing the design and landscape of the MRF/TS, outlines that the site would have secured perimeter fencing and/or block wall along the entire property boundary. In addition, a review of the Pest Control Program included as Appendix B within the On-Site Management Plan provides details and procedures for managing pests, including buildings designed with the use of pest-proof materials to facilitate cleaning and minimize the potential for pest harboring, operational protocols wherein recovered recyclable materials would be handled on a first-in, first-out basis to ensure that older materials do not accumulate on-site as a potential harboring spot for insects and vermin, and recurring inspections by third-party professional pest-control firms for compliance and eradication of pests. The District requests that the City of Irwindale effectively implement and execute any and all means necessary, including the aforementioned mitigation efforts, to appropriately manage the potential for pests from the MRF/TS and to further confine them to the MRF/TS site. As the District operates potable water facilities in close proximity to the MRF/TS, pests continue to be of concern since they are a known source of disease and have the potential of migrating to the current water system facility site, specifically the Clinton O. Nixon Pump Facility located just southeast of the proposed MRF/TS, if not confined to the source site. 3

Concern 4: Planned efforts for handling hazardous waste, including a review of the waste containment systems for prevention of leaching into the ground and potentially the groundwater.

Comments: According to Chapter 3.8 Hazards and Hazardous Materials, the MRF/TS does not propose to receive, process, or transfer hazardous waste in the process of its normal operation, pursuant to the California Code of Regulations Section 14 17407.5 and 17408.2; however the potential exists for household hazardous wastes to be transported to the site in the municipal solid waste transfer/collection trucks. To address the containment of hazardous wastes, procedural protocols initially include having a trained employee identify and remove the hazardous waste from the tipping floor and/or the trash sorting area. Once the hazardous waste has been identified and removed, a supervisor will log, label and transport the item to a specially designed fire-rated, lockable, waterproof and ventilated containment shed. Furthermore, as required by State regulations, a 90-day temporary hazardous waste storage permit will be required to ensure that all classified hazardous wastes are removed from the site by licensed hazardous waste haulers for disposal. 4

In addition, the MRF/TS is expected to use hazardous materials during normal operational activities, including maintenance of on-site equipment and vehicles. It is further mentioned that these hazardous materials would be contained in manufacturer-supplied containers no more than 55-gallons in size and stored in hazardous material cabinets designed to meet Federal and State regulations.

According to Mitigation Measure HAZ-1, the MRF/TS facility is required to form a Safety Committee, which would include a minimum of one (1) City Staff person as a participating member. The Safety Committee would have two distinct roles, including the completion of an annual review of the On-Site Management Plans, which are included as Appendix B to the DEIR, and the completion of a monthly review of the MRF/TS Daily Operational Report for assessment of the waste stream capacity. 4 con't

The District understands that several of the mitigation measures and permit requirements, as referenced in Chapter 3.8, are controlled by Federal, State and local regulations, policies and guidelines, which the District supports as a means of ensuring that all requirements are implemented and maintained with respect to hazardous waste and hazardous material processing and handling. The District further requests that the City of Irwindale effectively implement and execute any and all means necessary, including the formation of a Safety Committee as mentioned above, to properly manage hazardous wastes and hazardous materials processed and stored at the MRF/TS. These measures would help ensure that the groundwater quality remain uncompromised by the MRF/TS from leaching of any potential hazardous waste stream into the ground. Also, the District appreciates the stated formation of a Safety Committee and requests that carbon copies of the minutes and action items resulting from the Safety Committee meetings be provided to the District upon their completion.

Concern 5: Planned efforts for the discharge of waste water.

Comments: According to Mitigation Measure GEO-1 and WQ-1, the MRF/TS facility "*shall comply with the project-specific National Pollutant Discharge Elimination System (NPDES) Permit requirements (such as the Storm Water Pollution Prevention Plans (SWPPPs) and Best Management Practices (BMPs) including: limiting construction access routes and stabilizing access points; staking/marking construction limits; protection of cut and fill surfaces from sheet, rill and gully erosion; stabilizing temporarily denuded areas with seeding, mulching, jute netting, hay bales and silt fences or other methods; designating specific areas for the stockpiling, handling, preparation and disposal of construction materials; quickly establishing groundcover and landscaping of areas designated to remain pervious; and/or waste material and litter control to prevent existing drainages)*." This is a standard mitigation measure for most new projects, which provides compliance with discharge permits. The District supports these efforts. 5

The analysis of water quality impacts does not discuss how the proposed long-term BMPs would satisfy the requirements of the Standard Urban Stormwater Mitigation Plan (SUSMP). Most references to compliance with mitigation refer to the SWPPP, which is for short-term construction activities only, or the Erosion and Sediment Control Plan, which appears to be unrelated to SUSMP requirements. The District requests that the DEIR be clarified accordingly and the proposed BMPs be discussed in the context of how they satisfy all relevant regulatory requirements for water quality.

The District also respectfully submits the following additional comments to the City of Irwindale DEIR for the Proposed Materials Recovery Facility and Transfer Station dated April 2014.

Comment 1: The Executive Summary of the DEIR records the June 11, 2013 statement of the District related to its intentions of negotiating a sale agreement with the City of Irwindale to purchase 1.9 acres of the project site within the 2013 calendar year. It should also be noted within the DEIR Executive Summary that the District made an offer to the City of Irwindale, specifically John Davidson, City Manager, and Fred Galante, City Attorney, to purchase the aforementioned 1.9 acres of the project site in September 2013. Upon rendering the offer, it was explained that the property was not available for purchase based on the current dissolution of the Irwindale Community Redevelopment Agency. 6

Comment 2: Within Chapter 3.9 Land Use and Planning, reference is made to the Clinton O. Nixon Pump Facility in relation to existing land use around the proposed MRF/TS. The land use designations are correct, however the section only refers to the Clinton O. Nixon Pump Facility as a water storage facility. This chapter of the DEIR should be clarified to state that in addition to being a water storage facility, the Clinton O. Nixon Pump Facility contains groundwater extraction facilities for potable water use and additional booster pump facilities to supply customer demands. 7

Comment 3: Chapter 3.13 Water Quality and Hydrology outlines the potential water quality impacts attributable to the project, including the possibility for contaminants to be transported off-site in storm water runoff. According to Mitigation Measure WQ-1, the project "*shall be conditioned by the City to be certifiable at the Silver level utilizing U.S. Green Building Council's (USGBC) Leadership in Energy and Environmental Design (LEED) green building rating systems. The LEED rating system requires water efficiency in the design of a project through water use reduction, efficient landscaping, and innovative wastewater treatment technologies, as well as sustainable site selection; energy performance standards; materials and resource selection criteria; and indoor air quality practices.*" The District supports this mitigation measure, in addition to the other mitigation measures proposed herein, as a means of minimizing the risk of onsite and offsite contaminates migrating into the environment and ultimately resulting in contamination migration into the current water system operated by the District. 8

The District strongly urges you to consider all comments provided herein for responsibly managing the environmental impacts of the proposed Irwindale Materials Recovery Facility and Transfer Station to the surrounding communities. In advance, the members of the Board of Directors and I thank you for the opportunity to comment on the City of Irwindale DEIR and look forward to your response. If you have any questions, or if you need any additional information, please contact me at (626) 338-7301 x 201.

Sincerely,

Lynda Noriega
General Manager
VALLEY COUNTY WATER DISTRICT

CC: Lenet Pacheco, President of the Board of Directors, Valley County Water District
Margarita Vargas, Vice President of the Board of Directors, Valley County Water District
Alfonso "Al" Contreras, Member of the Board of Directors, Valley County Water District
Paul C. Hernandez, Member of the Board of Directors, Valley County Water District
Mariana Lake, Member of the Board of Directors, Valley County Water District

Responses to Comment Letter 9

Response 9-1: See Response to Comment 13-4 related to modifications to the mitigation measures and the efficiency of the emission reductions associated with combustion and fugitive emissions from construction and operations.

See Response to Comment 13-30 related to odor mitigation measures.

With regard to the 1,000 foot buffer, the SCAQMD Rule 410 requires that New or Modified Facilities shall (with the exception of C&D debris) conduct tipping, sorting and transfer operations within the confines of an enclosure that meets the requirements of Rule 410 (d)(1)(A) though (C), or

Rule 410 (d)(2) demonstrate that the facility is located greater than 1,000 feet from any property zoned for residential or mixed land use, or designated as a site for a school or a school under construction, measured from the side of the odor generating source located nearest to the area zoned for residential or mixed land use or school to the closest property line of that receptor.

Because the Irwindale MRF would not be located greater than 1,000 feet from any residential property, the Proposed Project will be designed to comply with the requirements found in Rule 410 (d)(1)(A) though (C).

Response 9-2: See Response to Comment 13-4 related to modifications to the mitigation measures and the efficiency of the emission reductions associated with combustion and fugitive emissions from construction and operations.

Per Caltrans DEIR Comment Letters 2 and 18, Caltrans acknowledges the project's off-site mitigation measures (MM T-1 and MM T-2 presented in the DEIR), and indicates that Caltrans will cooperate with the City of Irwindale and sponsors of the project to process an encroachment permit. The City has developed Mitigation Measures T-1 and T-2 addressing the timing of off-site circulation improvements, and Mitigation Measures T-3 through T-6 to address on-site circulation improvements, and mitigation alternatives to address cumulative impacts to freeways developed in consultation with Caltrans. Refer to Caltrans Comment Letter 18 for details regarding the City's engagement with Caltrans pertaining to the project.

Response 9-3: If the proposed project is approved, the City is committed to require full implementation of the Pest Control Program included within the On-Site Management Plan, including monitoring and adaptive management if needed to ensure compliance and eradication of pests.

Response 9-4: The City will require the Applicant/Operator to adhere to all federal, State and local regulations regarding hazardous waste and materials, including utilizing a Safety Committee for monthly and annual review. As stated in the Project Description (RDEIR p. 2.0-9):

> *Hazardous wastes would be prohibited at the MRF/TS. Only non-hazardous solid waste and non-hazardous recyclables are accepted at MSW transfer station sites. The facility would have a load checking program, per Title 14 California Code of Regulations Section*

17409.5. Federal, State, and local regulated hazardous waste (e.g., oils, medical, radioactive, and/or other types of hazardous materials) are not handled by MSW facilities. Operational plans will be required to ensure that any incidental hazardous wastes that enter the site will be handled and transported off-site consistent with all local, state, and federal laws. (Refer to Chapter 3.8 Hazards and Hazardous Materials for complete discussion and analysis). A licensed hazardous waste handling contractor will pack and remove hazardous materials every 90 days.

As requested, the City will make Safety Committee meeting minutes and action items available to the District.

Response 9-5: As the commenter notes, the project will require a project-specific National Pollutant Discharge Elimination System permit detailing the waste water discharge BMPs for construction and operations, to be established in the mandatory permits. The long term BMPs discussed in Chapter 3-13 do address both construction and long term operations. Construction and industrial activities within the Los Angeles Basin must comply with the Los Angeles Basin Water Quality Control Plan, various Los Angeles RWQCB orders, and County of Los Angeles codes and ordinances. Table 3.13-1 identifies a range of potential operational pollution sources, and subsequent text of the DEIR (pp. 3.13-10 through 13) specifies an extensive list of operational BMPs to be employed for the MRF/TS and fueling station.

Response 9-6: Subsequent to submittal of this comment the District withdrew its plan to purchase 1.9 acres of the project site; and therefore this comment is no longer valid. Refer to Recirculated Draft EIR Comment Letter 20 [dated August 29, 2014] regarding the VCWD's withdrawal to acquire the aforementioned parcel.

Response 9-7: The City acknowledges that the District's Clinton O. Nixon pump facility is a water storage facility that also includes groundwater extraction for potable water use and additional booster pump facilities. The text of the RDEIR Chapter 3.9 Land Use and Planning is amended to read:

"<u>The District's Clinton O. Nixon pump facility is a water storage facility that also includes groundwater extraction for potable water use and additional booster pump facilities.</u>"

Response 9-8: The District's support of the water quality mitigation measure WQ-1 in addition to support for the other mitigation measures proposed in the DEIR and Recirculated Draft EIR is noted. The City appreciates the District's participation in the public review process.

City of Duarte

1600 Huntington Drive, Duarte, CA 91010 - (626) 357-7931 - FAX (626) 358-0018

May 15, 2014

Comment Letter 10

Ms. Paula Kelly, Senior Planner
The City of Irwindale Planning Department
5050 North Irwindale Avenue
Irwindale, CA, 91076

Dear Ms. Kelly:

On behalf of the City of Duarte ("Duarte"), we have reviewed the Materials Recovery Facility Draft Environmental Impact Report ("MRF-DEIR") for the project entitled "Materials Recovery Facility and Transfer Station Project" ("Project"). The Project is characterized by the change in zone from Heavy Manufacturing to Planned Development Overlay, approximately 2.84 acres in size, within Irwindale, CA and located east of the 605 Freeway. Transportation of materials would involve up to 6,000 tons leaving the Project site and transferring said materials to various sites throughout the region.

Our review of the Draft EIR reveals that while potential TMDL's, chemicals and other various materials have been identified as potential pollutants, there is a lack of methodology behind being able to monitor for those materials despite the project projecting less than significant impact. More specifically, the Draft EIR does not include any of the following: 1

- Method for monitoring pollutants near the project site both before and after completion of the proposed project; 2
- Impact analysis of BMP's whether small or large scale on preventing potential pollutants into the storm-water system;
- Methodology and analysis of all potential scenarios in case of contributing pollutants

However, if The City of Irwindale decides to modify the Project or considers utilizing the Reduced Tonnage Option, the City of Duarte will expect a re-prepared and recirculated Draft EIR that considers the totality of environmental impacts, including those potential impacts discussed above. 3

The City of Duarte concurs with the draft finding that the Reduced Tonnage Option is the preferred Environmental option and represents the option with the least environmental impacts; since this option has less traffic impact air quality impacts will be reduced. Thank you for your careful consideration of these comments. Please contact me directly if you have any questions concerning the matters addressed in this letter.

Sincerely,

Sig for Alex Tachiki

Alex Tachiki
Community Development Intern

Responses to Comment Letter 10

Response 10-1: Chapter 3.3 Air Quality, Greenhouse Gas, Odor, and Health Risk Assessment covers the topic of pollutants extensively, beginning on pages 3.3-4, 3.3-5, and 3.3.-7 and includes the assessment of SCAQMD's regulatory role in the Basin, the significance thresholds and analysis methodologies in the SCAQMD's *CEQA Air Quality Handbook.* Theses regulatory guidelines were used in evaluating project impacts for construction, operations, air toxics, and GHG.

Potential pollutants are also discussed in Chapter 3.13, Water Quality and Hydrology. The project will require a project-specific National Pollutant Discharge Elimination System permit detailing the waste water discharge BMPs for construction and operations, to be established in the mandatory permits.

Response 10-2: The long term BMPs discussed in Chapter 3-13 address both construction and long term operations. Construction and industrial activities within the Los Angeles Basin must comply with the Los Angeles Basin Water Quality Control Plan, various Los Angeles RWQCB orders, and County of Los Angeles codes and ordinances. Table 3.13-1 identifies a range of potential operational pollution sources, and subsequent text of the DEIR (pp. 3.13-10 through 13) specifies an extensive list of operational BMPs to be employed for the MRF/TS and fueling station.

Methodologies used to assess potential pollutants included State CEQA Guidelines; US Environmental Protection Agency's *The Green Book Nonattainment Areas for Criteria Pollutants*; SCAQMD's *CEQA Air Quality Handbook;* and the *California Air Resources Board's* ambient standards known as the *California Ambient Air Quality Standards.* Under the Industrial Stormwater Permit, implementation of water quality BMPs is verified through inspections and the effectiveness of the BMPs is verified in laboratory reports which confirm that any discharges are meeting permit requirements. An Annual Facility Evaluation (including sampling and analysis) is required, and a report must be submitted to the Los Angeles RWQCB to verify compliance with permit requirements.

Response 10-3: Comment noted. The City of Irwindale published a Recirculated Draft EIR in July 2014, including a revised assessment of alternatives. Based on the analyses presented throughout the EIR, the Reduced Tonnage Alternative was identified as the environmentally superior alternative since it would have fewer environmental impacts when compared to the Proposed Project.

The City of Irwindale appreciates the City of Duarte's participation in the public review process.

BALDWIN
P · A · R · K

Comment Letter 11

May 15, 2014

Ms. Paula Kelly, Senior Planner
City of Irwindale
5050 N. Irwindale Avenue
Irwindale, CA 91706

RE: Comments related to the Irwindale MRF/TS Draft EIR (State Clearinghouse #2013051029)

Dear Ms. Kelly:

The City of Baldwin Park hereby respectfully submits comments on the proposed Draft Environmental Impact Report (DEIR) for the Material Recovery Facility and Transfer Station (MRF/TS), in the City of Irwindale, 1

On January 21, 2009, the City of Baldwin Park City Council adopted Resolution 2009-002 expressing opposition to the MRF/TS immediately abutting the city of Baldwin Park within the City of Irwindale. Therefore, to ensure the City of Baldwin Park's residents and businesses are adequately protected, the City Council of the City of Baldwin Park has no alternative but to strongly oppose the development of a MRF/TS at the proposed location (APN: 8535-001-911), which immediately abuts the jurisdictional boundary between the cities of Baldwin Park and Irwindale.

To protect the public good and the vital interests of the City, its residents, businesses, and potential visitors, the City of Baldwin Park has retained the services of Environmental Science Associates' Dan Sicular, PhD, to review and asses the information contained in the Draft EIR. Dr. Sicular has over 20 years of consulting experience in waste management, recycling, waste prevention, and environmental review. He is the author of numerous academic and professional papers on local, national and international trends in the waste management and has provided his expertise in managing the environmental analysis of several land fill expansions and materials recovery facilities and transfer stations statewide. Dr. Sicular has reviewed the MRF/TS Draft EIR and provided his analysis on behalf of the City of Baldwin Park. His review and analysis, which details numerous deficiencies in the Draft EIR is attached.

CITY OF BALDWIN PARK · 14403 EAST PACIFIC AVENUE · BALDWIN PARK · CA · 91706 · (626) 960-4011 FAX (626) 962-2625

As detailed in the attached analysis prepared by Dr. Sicular, the Draft EIR for the proposed MRF/TS in the City of Irwindale fails to meet the standards of legal adequacy under the California Environmental Quality Act (CEQA), and also fails to meet current standards of practice for environmental review of regionally significant solid waste handling facilities. 1 con't

Therefore, based on the legal standards of adequacy established by CEQA and current standards of practice for environmental review of major solid waste facilities, the City of Baldwin Park hereby requests that this Draft EIR be re-written and re-circulated.

Respectfully,

THE CITY OF BALDWIN PARK

Marc Castagnola, AICP
Community Development Manager

Attachment: ESA comments on draft EIR - letter dated May 14, 2014

cc: City of Baldwin Park Mayor and City Council
Honorable Congresswoman Grace F. Napolitano
Honorable State Senator Dr. Ed Hernandez
Honorable State Assemblyman Roger Hernandez
Honorable Gloria Molina, Los Angeles County Supervisor, District 1
City of Arcadia Mayor and Councilmembers
City of Azusa Mayor and Councilmembers
City of Duarte Mayor and Councilmembers
City of El Monte Mayor and Councilmembers
City of Irwindale Mayor and City Councilmembers
Baldwin Park Unified School District Board of Directors
Main San Gabriel Basin Watermaster
Upper San Gabriel Valley Water District Board Members
Valley County Water District Board Members
Valley View Mutual Water District Board of Directors
California Air Resources Board
California EPA—State Water Resources Control Board
California Department of Health Services
California Department of Toxic Substances Control
California Department of Transportation (District #7)
California Public Resources----Department of Conservation
California Regional Water Quality Control Board (Region #4)
CalRecycle Department of Resources, Recycling & Recovery
City of Los Angeles Department of Water and Power
Los Angeles County Department of Public Health
Los Angeles County Sanitation District
South Coast Air Quality Management District
Rivers and Mountains Conservancy
U.S. Army Corp. of Engineers, Los Angeles District
U.S. Environmental Protection Agency

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May 14, 2014

Mr. Michael Taylor
Executive Team Manager
City of Baldwin Park
14403 Pacific Ave.
Baldwin Park, CA 91706

Subject: Comments on Draft Environmental Impact Report for the Irwindale Materials Recovery Facility and Transfer Station Project (State Clearinghouse Number 2013051029)

Dear Mr. Taylor:

At the request of the City of Baldwin Park, we have completed our review of the Irwindale Materials Recovery Facility and Transfer Station Project (Irwindale MRF/TS; the "project") Draft Environmental Impact Report (DEIR). This letter details the results of our review, which focused on identification of areas of the document that fail to meet standards of legal adequacy under the California Environmental Quality Act (CEQA), or that do not meet current standards of practice for environmental review of major solid waste handling facilities. Our comments are organized by chapter of the DEIR, preceded by general comments.

General Comments

The DEIR examines essentially the same project as the 2009 DEIR of the same title. The major differences between the projects analyzed involve site layout and access. The current DEIR also includes a "project variant," in which a portion of the project site would not be developed as part of the project, but rather would be used for new water tanks by the Valley County Water District. This would displace planned parking of transfer trucks on the project site, necessitating off-site parking. 2

This DEIR may therefore be considered a "recirculated Draft EIR," pursuant to CEQA *Guidelines* Section 15088.5 (though this document was preceded by a new Notice of Preparation, and the document carries a new State Clearinghouse number). This DEIR provides a much more complete project description and contains substantial new analysis, and generally is an improvement over the previous DEIR in terms of clarity and completeness. Nevertheless, this document, like the previous one, contains numerous instances of inadequately conducted analysis, resulting in frequent understatement or omission of potentially significant impacts associated with the project. The DEIR also fails to meet standards of adequacy for the cumulative impact analysis, alternatives analysis, and growth-inducing impact analysis, as detailed below.

CEQA *Guidelines* Section 15088.5 requires recirculation of a DEIR prior to certification when, "…significant new information is added to the EIR after public notice is given of the availability of the DEIR for public review… but before certification." The comments below, and information that should be included in an adequate response to these comments, add such significant new information, requiring recirculation of the document.

Specifically, the comments below identify significant new environmental impacts that the DEIR fails to identify; point out feasible mitigation measures or the need to develop such measures to reduce these impacts; and identify feasible alternatives that would avoid or substantially reduce some of the significant impacts of the project, and which should be included in a recirculated DEIR. 2 con't

Document Presentation

The reproduction of the document is of such poor resolution that much of the information provided in the figures is illegible or indiscernible. For example, labels in the site plans and elevations in the Project Description and the Aesthetics chapter are illegible. This is true of a hardcopy of the document printed from the pdf file available at the City of Irwindale website, and also the pdf version itself when blown up on a high resolution computer screen. The poor quality of the reproduction obfuscates information that should be clearly and concisely disclosed regarding the project and its potential environmental effects, and deprives the public of meaningful opportunity to review and comment on the DEIR. The document should be reformatted at higher resolution and recirculated. 3

Specific Comments

Notice of Availability

The Notice of Availability issued by the City of Irwindale for the project fails to meet the requirements specified in CEQA *Guidelines* Section 15087(c). Specifically, the Notice of Availability does not contain the following required information: 4

- A brief description of the proposed project and its location.
- A list of the significant environmental effects anticipated as a result of the project.
- The address where copies of all documents referenced in the EIR are available for public review.
- The presence of the project site on any of the lists of sites enumerated under Section 65962.5 of the Government Code.

The Notice of Availability should be re-written to include this required information and re-issued, along with the specification of a new period for circulation and public review of the DEIR.

Project Description

The Project Description provides a list of project objectives on page 2.0-20 but the description of the project itself does not reconcile with the objectives. There is no justification given for the massive scale of the facility. The communities currently served by Athens Services, the project sponsor, generate far less than 6,000 tons per day, the capacity of the proposed MRF/Transfer Station. There are numerous other facilities providing many of the 5

same services intended for this project, including acceptance of self-haul loads, such that this project can only hope to capture a portion of the regional waste transfer and materials recovery market. The EIR should explain why such a large facility is necessary. Since one of the project objectives is to enable the City of Irwindale to comply with the AB 341 goal of diverting 75 percent of waste from landfill, the project description should provide information on the City's current diversion rate, and should describe why such a large capacity facility located within the City limits is necessary to achieve this goal. 5 con't

The Project Description briefly mentions that truck equipment maintenance and fueling would occur at the project site. Maintenance and fueling facilities should be thoroughly described in the Project Description. Potential impacts associated maintenance and fueling, including hazardous materials use and storage, and air emissions (including health risks associated with emissions of toxic air contaminants), should be analyzed. If the proposed gas station/convenience store is intended to provide fueling facilities for collection and transfer vehicles, this should be disclosed, and potential effects of use of the gas station by large trucks analyzed, including traffic congestion, traffic safety, and air quality.

Cumulative Impacts

The EIR fails to adequately disclose and analyze the project's cumulative impacts, including cumulative impacts related to noise, health risk, biological resources, cultural resources, public services and utilities, and hazards and hazardous materials. 6

When analyzing cumulative impacts there are two determinations that must be made: 1) a determination whether the combined impact of the project with other projects causing related impacts would be significant; and 2) a determination whether the project's incremental contribution to a cumulative impact is cumulatively considerable. If a lead agency finds that the cumulative impact is not significant, the EIR must include an explanation of the basis for the finding, supported by facts and analysis.

The cumulative impacts conclusions in the DEIR are not supported by adequate facts and analysis. At the conclusion of each of the chapters, in the discussion of cumulative impacts, a cursory reference to the cumulative projects list in Chapter 3.0 is the only supporting evidence provided, but no analysis is given. The DEIR simply makes a conclusory statement with no level of supporting detail. This fails to meet the standard of adequacy for analysis of cumulative impacts in an EIR. Each cumulative impact discussion should include a summary of the expected environmental effects of the listed cumulative projects related to the resource being analyzed, and whether the project would make a cumulatively considerable contribution to any identified cumulative impact.

The DEIR also fails to define the geographic area used in the cumulative analysis of each resource area. In Chapter 3.0, the DEIR provides a brief explanation and some broad examples of the geographic regions associated with certain resources when analyzing cumulative impacts, but provides no specifics with regard to which of the projects from the cumulative project list are relevant in the analysis of each resource. The DEIR

should include an explanation of the criteria for determining geographic area of impact analysis, and should provide information on the expected impacts from listed cumulative projects located within the geographic area. 6 con't

Chapter 3.2 Aesthetics

The DEIR in Chapter 3.2, Aesthetics, fails to consider the impacts of the project on scenic views from publically accessible viewpoints within the City of Baldwin Park. While Impact AES-1 purports to consider effects on scenic vistas, the DEIR fails to do this. Exhibits 3.3-1, 3.3-2, 3.3-3, 3.3-4, and 3.3-5 provide existing views of the project site from Live Oak Avenue and Baldwin Park Blvd. The viewpoints are south of the project site and the views look north, to and across the project site. All of these photographs clearly show the San Gabriel Mountains rising in the distance, behind the project site. While the DEIR acknowledges the presence of the San Gabriel Mountains in these views, it fails to acknowledge that views of the San Gabriel Mountains are an important visual element throughout the area. The San Gabriel Mountains, which rise to peaks over 10,000 feet, and which are sometimes snow-covered in the winter, provide a dramatic visual backdrop to the relatively flat lands of the San Gabriel Valley. Throughout the City of Baldwin Park and surrounding areas, views of the San Gabriel Mountains provide an important landmark and contribute greatly to the sense of place. Obstructing views of these mountains from publically accessible locations should be considered a significant environmental impact. 7

The visual simulations provided (Exhibits 3.2-11 through 3.2-16) are oblique aerial views, not ground-level views (with the exception of one from the top of the Santa Fe Dam, looking southwest). No visual simulations are provided to show the effects of the proposed development on the existing views shown in Exhibits 3.3-1 through 3.3-5. The proposed development would apparently be up to 61 feet high, with the parapet on the south side (along Live Oak Avenue) up to 51 feet high. Based on the existing views in Exhibits 3.3-1 through 3.3-5, and using trees and other visual elements as a gauge, the proposed development may completely or partially block views of the San Gabriel Mountains from the viewpoints used in Exhibits 3.3-1 through 3.3-5, and from many other publically accessible locations throughout the northern portion of Baldwin Park.

Impact AES-1 prematurely concludes that "…the visual change resulting from Project implementation will not eliminate a scenic view of the mountains from any direction" and that, "…therefore, the proposed Project will not have a substantial adverse effect on a scenic vista." This conclusion is not supported by evidence. The Aesthetics chapter should be re-written to include a complete analysis and discussion of the effects of the project on scenic views from publically accessible viewpoints within the City of Baldwin Park, particularly on views of the San Gabriel Mountains, and if necessary to identify feasible mitigation measures and alternatives to reduce or avoid this impact. The analysis should include visual simulations that demonstrate conclusively whether, and the extent to which, the proposed project would block these sensitive views.

Impact AES-1 also purports to examine whether the project would substantially degrade the existing visual character or quality of the project site and its surroundings. The analysis contained in the discussion of Impact AES-1, however, fails to do this. The area to the south of the project site, within the City of Baldwin Park, is

designated as a Commercial/Industrial area; further to the south are residential areas. Live Oak Avenue, which borders the project site on the south, is a divided, four lane boulevard with landscaped median and curb strips. While the project site itself is undeveloped, the south side of Live Oak Avenue, within the City of Baldwin Park, consists mostly of smaller commercial, light industrial, and service businesses. Developments typically are one-story and set-back from the street with landscaping and/or parking. Baldwin Park Boulevard and Maine Avenue, both of which run south into the City of Baldwin Park from Live Oak Avenue just across from the project site, have a similar character. Both of these streets become residential about a block south of Live Oak Avenue. Maine Avenue is identified as a Primary Gateway into the City in the Baldwin Park General Plan.

7 con't

The project would completely change the visual character of this area, by constructing a very large (250,000+ square feet), imposing building immediately north of Live Oak Avenue. Furthermore, the facility is proposed to receive and ship waste 24 hours per day, seven days per week, and will receive as many as 2,400 trucks per day, including up to 559 transfer trucks. The scale of the development, the intensity of operations, and the levels and type of truck traffic all will alter the visual character of the northern part of the City of Baldwin Park, resulting in a significant aesthetic impact. The Aesthetics chapter also fails to assess the aesthetic impacts of litter emanating from the facility and from associated waste-hauling vehicles. While the DEIR references a very brief litter control "plan" that appears in Appendix B, the DEIR fails to acknowledge that all waste facilities inevitably produce litter. Litter from the facility and associated vehicles would contribute to aesthetic degradation in the vicinity of the facility, particularly the commercial, light industrial, and residential areas to the south within the City of Baldwin Park. The DEIR should be re-written to identify this impact as significant and to specify feasible mitigation measures and alternatives to reduce or avoid this impact.

The DEIR also fails to analyze the potential for a 6,000 ton per day MRF/Transfer Station to result in urban blight. This could occur because large waste processing facilities and associated waste-hauling vehicles on local roadways tend to discourage economic development, and to cause economic decline, in the vicinity of the facility. The DEIR Aesthetics chapter should be re-written to include an examination of the project's likely economic consequences for the area around the facility, should it be built, and the potential for the project to cause blight, particularly in the area south of the project site within the City of Baldwin Park. It is likely that an objective evaluation would identify blight as a significant impact, leading to the requirement to identify feasible mitigation measures and alternatives to avoid or reduce this impact.

Chapter 3.3 Air Quality, Greenhouse Gas (GHG), Odor, and Health Risk Assessment

Air Quality and Greenhouse Gases

The DEIR anticipates that construction of the project would require 18 months. Based on the CalEEMod outputs for the project's construction emissions, a shorter period of approximately 14.5 months was used in the calculations. This discrepancy should be justified or corrected.

8

A review of the CalEEMod output files for the project's construction emissions shows that no haul truck trips were accounted for during any of the construction phases. With 20 construction work days dedicated to the demolition phase in the model, it would appear that there should be some truck trips associated with the export of demolition waste from the site. Additionally, as the site preparation phase would consist of land clearing and grubbing, haul truck trips would also likely be required to export the materials from the site. Furthermore, based on the information provided in Exhibit 2-9 (Preliminary Grading Plan) of the DEIR, a total of 15,000 cubic yards of soil export is anticipated during construction. This would require approximately 750 truck trips using heavy duty diesel-powered trucks. None of the truck trips associated with soil export during grading was accounted for in the emissions calculations. 9

Although the project site consists of approximately 17 acres, the CalEEMod outputs show that only 10 acres of grading was accounted for in the construction emissions. From the site plans it would appear that the entire site would likely require grading. Grading-related emissions therefore appear to be underestimated. 10

Based on the CalEEMod outputs, the DEIR failed to account for asphalt paving off-gassing emissions associated with construction of parking lots and other outdoor paved areas. 11

The DEIR states on page 3.3-23 that a dust control efficiency of 75 percent due to daily watering and other measures was estimated, but does not describe what the "other" measures would include. Citing the SCAQMD *CEQA Air Quality Handbook*, it is stated that three water applications per day would reduce fugitive dust emissions by 68 percent. However, based on the fugitive dust mitigation measures listed in Table XI-A (Construction & Demolition) on SCAQMD's website (http://www.aqmd.gov/ceqa/handbook/mitigation/fugitive/MM_fugitive.html), applying water every three hours to disturbed areas within a construction site would have a PM_{10} control efficiency of 61 percent. Consequently, the DEIR underestimates construction-related dust emissions, by over-estimating the efficacy of mitigation measures. 12

The DEIR states that application of appropriate emission control devices, use of newer equipment, or other exhaust mitigation measures during project construction would reduce exhaust particulate matter by 50 percent. However, the DEIR is unclear with regards to which of these options were assumed in calculating the project's mitigated construction emissions, and how the percentage reduction of 50 percent was derived. Additionally, the DEIR should disclose which of the listed construction-related mitigation measures would be responsible for achieving the 50 percent reduction in exhaust particulate matter emissions. In short, the DEIR fails to provide substantial evidence that the stated reduction in exhaust particulate matter during project construction would be achieved. 13

Page 3.3-28 of the DEIR states that the project is expected to result in "relocated" emissions with respect to off-site vehicle emissions. The discussion postulates that because more than two-thirds of the materials that will be 14

driven to and away from the proposed project facility are currently being taken to other facilities in the South Coast Air Basin, these emissions are considered to be existing rather than new emissions. However, in order for these existing vehicle emissions to be considered "relocated" to the proposed project facility, these emissions that are currently occurring at the "other" facilities in the South Coast Air Basin must be permanently displaced and no longer allowed to occur. The DEIR does not provide any evidence that the operational capacity at the current MRF/TS facilities, along with their respective number of daily collection and transfer truck trips, would in fact be reduced once the project is implemented. Because there is no evidence or assurance that the operational capacity at the current MRF/TS facilities would be reduced, all of the truck trips associated with the proposed project would represent net "new" trips in the South Coast Air Basin, including the truck trips to all three landfill sites as well as recyclables to the ports of Los Angeles and Long Beach. Thus, the project's estimated operational emissions in the DEIR have been seriously underestimated. The air quality analysis should be re-done, without the assumption of "relocated" truck trips and related emissions. 14 cont.

The project's on-site construction emissions presented in Table 3.3-13 do not appear to match the on-site emissions generated from the CalEEMod model run. The DEIR should disclose the methodology used to calculate the on-site emissions shown in Table 3.3-13, or should correct the data provided in the table and reevaluate the significance conclusions. 15

Based on the fact that no haul truck trips were accounted for in the project's CalEEMod run for construction emissions, the LST analysis also appears to underestimate pollutant concentrations by not accounting for emissions generated from on-site truck travel during the project's construction phases. 16

The discussion under Threshold AQ-3 does not disclose the $PM_{2.5}$ concentration that was calculated for project operations, but indicates that it is below 5 µg/m^3. However, the SCAQMD's 24-hour threshold for operational PM2.5 concentrations is 2.5 µg/m3. Furthermore, the dispersion modeling output file for PM2.5 shows that the 8th highest, rather than the highest, 24-hr PM2.5 concentration was used. Either the highest modeled concentration should be used as a basis for the impact conclusion, or if another concentration is selected, a reason should be provided. Overall, the discussion of PM2.5 impacts should be re-written to disclose the estimated PM2.5 emissions and all assumptions used in calculating these emissions, and to evaluate the significance of these emissions with respect to the correct significance threshold. 17

Based on the project's operational emissions calculations, a one-way distance was used for collection trucks, while a roundtrip distance was used for the other truck trips associated with the project. The DEIR should explain why only a one-way travel distance was used for collection trucks. 18

The unmitigated and mitigated operational emissions for the project shown in Tables 3.3-9 and 3.3-11, respectively, do not appear to have accounted for emissions associated with truck idling. As such, the project's operational emissions appear to have been underestimated. 19

The analysis of the project's operational emissions shown in Tables 3.3-9 and 3.3-11 of the DEIR includes a footnote that states that the project's estimated operational emissions would not be different for the proposed project and the "project variant." However, as described in the Project Description of the DEIR, under the project variant no overnight parking for transfer trucks could be accommodated at the project site. In turn, the Applicant would need to hire off-site vendors for all transfer truck operations. As a result, an increase in the travel distance for vendor trucks would occur, which would result in additional on-road emissions. The DEIR fails to disclose the anticipated increase in emissions associated with the project variant. The analysis in the DEIR should be revised to include an explicit analysis of increased operational emissions associated with the project variant. The traffic analysis should also account for increased truck trips under the project variant. 20

The comments above noting the deficiencies and inconsistencies in the project's criteria pollutant emissions calculations during the construction and operational phases also apply to the GHG calculations conducted for the project. GHG emissions should be recalculated and disclosed, after addressing the methodological issues raised above. 21

Similar to the comment above regarding the project's operational emissions of criteria pollutants, the analysis of the project's net "new" GHG emissions generated during operations have been underestimated because the DEIR does not provide any evidence that the operational capacity at existing MRF/TS facilities, along with their respective number of daily collection and transfer truck trips, would in fact be reduced once the project is implemented. As such, additional off-set credits will need to be purchased for the project. In order to correct this underestimation of the severity of GHG impacts, the GHG analysis should be re-done to exclude the assumption of "relocated" truck trips and related emissions. 22

Page 3.3-52 of the DEIR indicates that the project is efficient with regard to energy use because the transfer truck trip mileage would be reduced from project implementation compared to existing baseline conditions. However, because the DEIR does not provide evidence or assurance that the operational capacity at existing MRF/TS facilities would be reduced, all of the truck trips associated with the proposed project should be considered net "new" trips in the South Coast Air Basin. Thus, there is no evidence that the project would result in increased energy efficiency. The conclusion regarding energy efficiency should be re-examined. 23

Odors

In the Project Description (page 2.0-16), the DEIR states that there will be a four-hour period each day during which transfer trucks may be loaded with refuse and parked outside on the project site. While the document states that trucks will be tarped, anyone who has spent time around loaded garbage trucks knows that no amount of tarping can prevent the escape of odors from these vehicles. This is especially true in warm weather. In the Technical Appendices, the Air Quality and Health Risk Assessment provides a wind rose on page 11, and this figure indicates that wind from the northeast or north-northeast occurs approximately 20 percent of the time. This suggests that areas to the southwest and south-southwest, including residential and commercial areas in Baldwin 24

Park, are likely to experience odorous air from parked transfer trucks. Most of the rest of the time, the wind is blowing from the southwest, which would carry odors to the Santa Fe Dam Recreation Area. The DEIR fails to identify the potential for odors from parked trucks, or from trucks accessing and leaving the facility, to cause odors and to result in a significant effect on recreational users of the Santa Fe Recreation Area and on residents and businesses in Baldwin Park. 24 cont.

The DEIR explains that "…air leaving the building at the roof exhaust fans will be treated by a non-toxic odor neutralizing misting system to mitigate any odors." (p. 3.3-42). It also refers to an On-Site Management Plan which says that exhaust air will be "drawn through odor-absorbing activated carbon." Which is it? If misting, how safe is the "non-toxic" odor neutralizing compound for sensitive receptors? And, has the method been proven effective in similar situations, with similar daily tonnages of solid waste? The effectiveness of these measures, and their potential secondary effects on air quality and human health, should be examined. 25

Health Risk

Although the health risk discussion (Threshold AQ-5) indicates that the project would have a less than significant impact, the discussion and associated technical appendix do not provide enough information for the reader to verify those results independently. The information provided, however, indicates that health risks have been substantially underestimated. 26

For the fueling station, the project description states that the station would have eight pumps, but does not provide the average throughput. The discussion states that the fueling station would dispense approximately 2.0 million gallons per year, but does not provide any reference except to state that it is based on the average throughout for similar-sized fuel dispensing stations in California. A reference is needed for this assumption, since the health risk assessment is based on fuel throughput. Typically, health risk estimates are based on the reasonable worst-case assumptions rather than average estimates. The use of an average instead of a reasonable worst- case throughput underestimates health risks. If the fueling station is intended to serve collection and transfer vehicles, or if a separate fueling facility is planned to serve these vehicles (see comment above under Project Description), emissions associated with dispensing the large quantities of fuel consumed by these vehicles should be accounted for in the health risk assessment. 27

The Chapter 3.3 cumulative impact discussion does not address the significance of the project's contribution to cumulative health risks. This serious deficiency needs to be corrected. Other sources of toxic air contaminants that affect the same sensitive receptors should be identified and quantified. The combined health risk of the project with these other projects should be disclosed. 28

Appendix C contains a technical report supporting the health risk assessment. Page 4 of Appendix C states that benzene, 1,3-butadiene, and formaldehyde would be emitted during gasoline dispensing but does not include any 29

explanation of why only these three TACs were evaluated, since evaporative emissions of gasoline contain many other TACs, as well. 29 cont

Page 7 of Appendix C states that diesel particulate matter (DPM) emission factors were assumed to equal $PM_{2.5}$ emissions as generated using EMFAC2011. The California Air Resources Board's Findings of the Scientific Review Panel on The Report on Diesel Exhaust (http://www.arb.ca.gov/toxics/dieseltac/de-fnds.htm) states that "Almost all of the diesel particle mass is in the fine particle range of 10 microns or less in diameter (PM10), and that approximately 94 percent of the mass of these particles are less than 2.5 microns in diameter." By using $PM_{2.5}$ instead of PM_{10} emission factors, the health risk assessment underestimates the health risks from trucks. This should be corrected by using PM10 emissions volumes as a surrogate for DPM. 30

Page 7 of Appendix C describes DPM emission rates for vehicles, and Table 1 shows those emission rates. There are several problems with this discussion and Table 1. Table 1 shows emission factors for self-haul, T6, and T7 vehicles although the discussion makes no mention of T6 vehicles. Neither the discussion nor Table 1 indicates what year these emission rates represent. In addition, although the discussion indicates that idling was incorporated into the rates, it does not indicate how idling was incorporated. The discussion continues with "As shown, emission factors steadily decrease between the years 2015 and 2030." However, such a decrease is not shown in Table 1. The discussion and Table 1 need to be revised to show how the emission factors were estimated, including a listing of all assumptions that were used to generate emissions. 31

Page 8 of Appendix C indicates that "rural" dispersion modeling coefficients were used for the analysis based on Auer (1978). However, it is unclear why the rural coefficients were selected. Well over 50 percent of the land uses within three kilometers of the facility are urban, which implies that the urban modeling assumption should have been used. The use of the urban assumption would likely result in higher project concentrations, which would increase project health risks. 32

Page 13 of Appendix C includes a Table 2 that lists Health Risk Assessment Exposure Parameters for adults, children, and school receptors. The table lists an OEHHA 2003 document as a reference. In 2012, OEHHA published a document that updated many of its health risk exposure parameters, rendering many of the Table 2 assumptions obsolete. For example, OEHHA has updated its daily breathing rates (OEHHA, 2012. Air Toxics Hot Spots Program Risk Assessment Guidelines, Technical Support Document for Exposure Assessment and Stochastic Analysis, Final, August 2012). Those updated breathing rates, especially for infants, do not appear to have been used in the MRF health risk assessment, which indicates that the project's health risks have been substantially underestimated. The HRA should be revised to reflect OEHHA's updated health risk exposure parameters. 33

Appendix C is also deficient in that it does not contain enough information to allow reviewers to repeat or verify the analysis. The deficiencies include the following: 34

- HARP modeling results are not included. Consequently, the reader cannot verify the accuracy of the health risk calculations. 34 cont.

- Although page 3.3-42 of Chapter 3.3 discusses the cancer-burden analysis, there is no information in Appendix C that shows how that burden was calculated. 35

In summary, the health risk analysis is deficient, since it uses improperly optimistic (i.e., not conservative) assumptions regarding emission rates, outdated emission and exposure factors, incorrect dispersion coefficients, possibly flawed calculations, and fails to consider cumulative health risk impacts, all of which appear to have contributed to a substantial underestimation of health risks. The health risk assessment should be revised using current, generally accepted factors and methods. If this results in a determination that the project would have significant health risks or would make a cumulatively considerable contribution to cumulative health risks, then feasible mitigation measures and alternatives should be identified to avoid or substantially reduce these impacts. 36

Chapter 3.4, Biological Resources

The impact analysis in Chapter 3.4, Biological Resources, is based on surveys and research completed in 2009. While the DEIR states on page 3.4-1 that "the site conditions have been reviewed in 2012 and 2013, and determined to have had no substantial change since that time," there is no explanation of what this review consisted of: no evidence is provided to demonstrate that the information on which the analysis is based is in fact current. At the least, a qualified biologist should conduct a new site visit to ascertain whether conditions have changed since 2009, particularly to evaluate the potential for presence of burrowing owl, nesting birds, and roosting bats, as well as the presence or potential for presence of special status plants. Given the proximity of the site to the channel of the San Gabriel River, which is known to support special status plant and animal species, and the length of time that the site has sat empty, there is a moderate likelihood that the site now contains some sensitive habitat, such as riparian vegetation or wetlands, and that the site now supports or is capable of supporting special status plants and animals. In addition, a new query of the California Natural Diversity Database (CNDDB) and other biological resources databases should be conducted, to ascertain whether new occurrences of sensitive species may have been recorded in the vicinity of the project site since 2009. Updated information should be used to reexamine the conclusions of the DEIR regarding biological resources impacts, including cumulative impacts, and, if necessary, revise them. 37

Chapter 3.5, Cultural Resources

The impact analysis in Chapter 3.5, Cultural Resources is also based on a 2009 study. Again, the DEIR states (on page 3.5-1) that "site conditions have been reviewed in 2012 and 2013 and determined to have had no substantial change since the 2009 investigation, and the report is considered to be still current for purposes of the analysis." No explanation or description of the "review" of site conditions is provided, such that no evidence is provided that the description of site conditions from 2009 is still valid. A new cultural resources database search should be 38

conducted, along with a new pedestrian site survey. In addition, contact with the Native American Heritage Commission and local tribal representatives should be reinitiated. Updated information should be used to reexamine the conclusions of the DEIR regarding cultural resources impacts, including cumulative impacts, and, if necessary, revise them. 38 cont

Chapter 3.8, Hazards and Hazardous Materials

The discussion of impact ("Threshold") HAZ-3 (mistakenly identified as HAZ-2) on page 3.8-28 concludes that the project would have a less than significant impact, with mitigation, with regard to hazardous emissions within one-quarter mile of an existing or proposed school. As noted in the discussion, the Margaret Heath Elementary School is located approximately one quarter mile south of the project site. The school is located less than one quarter mile south of Live Oak Ave, which will be used as a haul route by diesel collection trucks. The discussion of impact HAZ-3 fails to recognize emissions of DPM within one quarter mile of a school as a significant impact. The DEIR should be re-written to correct this omission, and to consider mitigation measures and alternatives that would avoid this impact. 39

The "Mitigation Program" presented in Chapter 3.8, page 3.8-30, provides two mitigation measures, apparently (but not explicitly) to mitigate impacts HAZ-1, -2, and -3. These mitigation measures do not meet the standards of adequacy described in the CEQA *Guidelines*, Section 15126.4. The discussion fails to demonstrate how the future formation of a committee, and the future writing of a plan, would mitigate the significant impacts identified. The DEIR fails to set a performance standard against which the mitigation measures can be compared, and fails to demonstrate how these measures will in fact reduce or avoid the impacts. The mitigation measures as presented constitute "deferred mitigation" as described in CEQA *Guidelines* Section 15126.4(b), and must be re-written.

Chapter 3.9, Land Use and Planning

The City of Baldwin Park General Plan establishes 14 "focus areas" throughout the City, with specific goals and policies addressed to each. One such area is the Northern Industrial Area – an area within the city limits along Live Oak Avenue/Arrow Highway. The proposed project is adjacent to this corridor on the north. Goals and policies for this focus area from the Economic Development Element of the General Plan include:

> **Goal 2.0**: Promote development of Northern Industrial Area. 40
>
> **Policy 2.4**: Promote establishment of commercial sites along Arrow Highway that will serve the industrial activity, through travelers, and the local community.

Goals and policies for this focus area from the Land Use Element of the General Plan include:

> **Goal 4.0**: Encourage development of commercial uses along Arrow Highway to support industrial uses and to serve travelers. Establish programs to improve the appearance and overall function of the area, including potential incorporation into a Redevelopment Project Area.
>
> **Policy 4.1**: Redesignate properties fronting Arrow Highway from *General Industrial* to *Commercial/Industrial*. Encourage the development of support retail and service commercial uses such as restaurants (including fast-food restaurants), service stations, personal service businesses, and the like.

40 cont.

Per the Baldwin Park General Plan, the *Commercial/Industrial* land use category is established to permit commercial, light manufacturing, and office uses in both business park settings and as individually developed lots. The designation encourages a mutually beneficial mix of service/retail commercial businesses with light industrial activities and professional office uses.

In Chapter 3.9, Land Use and Planning, the EIR wrongly states that the proposed project does not conflict with the City of Baldwin Park General Plan. The proposed project is not consistent with the adopted goals and policies of the City's General Plan which recognizes Arrow Highway as a major gateway to the City, and promotes and encourages a mix of visitor-serving uses (light manufacturing, commercial, office); not heavy intensity industrial uses such as the proposed project. The DEIR should be re-written to identify as a significant impact the inconsistency of the project with the plans and policies contained in the Baldwin Park General Plan, and mitigation measures and alternatives should be provided to avoid or substantially reduce this impact. As noted in the comments above regarding the aesthetics analysis, the potential for the project to result in blight in the northern portion of Baldwin Park should be examined.

Chapter 3.10, Noise

Page 3.10-17 of the DEIR discusses the relevant noise standards from the Baldwin Park Code of Ordinances, which is shown in Table 3.10-5, but does not include the "corrections" to the noise limits identified in Table 3.10-5 that are listed as part of Section 130.34(B) of the Baldwin Park Code.

41

Page 3.10-19 of the DEIR indicates that the project's operational-related noise levels would be considered significant if they exceed the City of Baldwin Park's interior and exterior noise standards that are shown in Table 3.10-4. However, the City of Baldwin Park's noise limits shown in Table 3.10-5 of the DEIR should also be applied to the project's operations.

42

Page 3.10-21 of the DEIR indicates that paving activities generating noise levels up to 89 dBA Leq will occur right at the property boundary. However, in the following sentence it is indicated that finishing activities, when accounting for an attenuation rate of 6 dBA per doubling of distance, would result in 83 dBA at the property boundary. It would seem that a noise level of 83 dBA would occur at 100 feet from the property boundary.

43

The construction noise impact discussion only briefly mentions that construction-related material haul trips would raise ambient noise levels along haul routes, but does not disclose what the estimated traffic noise levels would be on the roadways and whether construction-related traffic noise levels would result in a temporary substantial increase in ambient noise levels along the roadways. 44

Table 3.10-9 of the DEIR notes that an estimated noise level of 82 dBA at 50 feet from major MRF, Green Waste and Self Haul C&D entrance points would occur. However, there is no mention or discussion of how this noise level was estimated for project operations in the analysis. The DEIR should explain how this estimated level was deduced and whether this value represents an hourly average or a shorter averaging period (e.g., L25, L50, etc.). Additionally, no explanation is offered as to how a 10-dBA reduction is deduced based on minimal truck movements during night operations, particularly because the facility is proposed to operate 24 hours per day, seven days per week. 45

Table 3.10-9 interprets the City of Irwindale's ambient base noise levels as hourly average noise levels. However, Section 9.28.039 of the Irwindale Municipal Code does not state that the ambient base noise levels are hourly averages. As the noise-generating activities associated with project operations at the project site would typically occur over durations much shorter than an hour (as shown in Table 3.10-8 of the DEIR), the hourly averages presented in Table 3.10-9 of the DEIR may be understating the project's operational noise impacts. 46

Page 3.10-26 of the DEIR refers to an exterior noise level "L(12) limit of 65" for Baldwin Park residential uses. This limit does not correspond with the City of Baldwin Park's interior and exterior noise standards shown in Table 3.10-4 of the DEIR. Additionally, Table 3.10-5 of the DEIR indicates ambient base noise levels between 7 a.m. to 7 p.m. and 7 p.m. to 7 a.m. of 55 dBA and 45 dBA, respectively, for single-family residences. The DEIR does not include an evaluation of the project's operational noise impacts with respect to these ambient base noise levels for the nearest residential uses located south of the project site. 47

Under Threshold N-4 on page 3.10-33 of the DEIR, the analysis of the project's construction noise levels indicates that the maximum construction noise levels would reach up to 70 dBA at the Santa Fe Dam and Recreation trail. As the existing noise levels that were measured in the Santa Fe Dam and Recreation trail area ranged from 55-58 dBA, an increase in ambient noise levels of 12-15 dBA would occur, which is considered to be a significant increase in noise levels at a sensitive receptor. Thus, this should be identified as a significant impact. 48

Under Threshold N-4 on page 3.10-33 of the DEIR, the analysis indicates that the construction noise levels from the project at the nearest residential land use would be 73 dBA. However, based on the short-term daytime noise measurements that were taken at Noise Monitoring Location 2 (see Table 3.10-2 of DEIR), the Leq noise levels ranged from 55 dBA to 65 dBA. As the project's construction noise levels would result in a 9-18 dBA increase 49

over daytime ambient noise levels, it should be concluded that the project would result in a significant increase in noise levels at sensitive receptors in the project area. 49 cont.

Chapter 3.12 Traffic Generation and Circulation

The DEIR fails to put the project's responsibility for mitigation measures in the proper context as required by State policy and the CEQA *Guidelines*. Section 3.12.8 (Impact Analysis and Mitigation Program, on pages 3.12-67 through 3.12-78) presents findings of the intersection level of service (LOS) analyses, and identifies significant project impacts at 2 of the 17 study intersections, as follows:

> Intersection 3: I-605 Southbound Off-Ramp at Arrow Highway (signal control) Year 2035 plus Project Buildout;
>
> Intersection 8: I-605 Northbound Off-Ramp at Live Oak Avenue (side-street stop control) Existing plus Project Buildout, Year 2016 plus Project Buildout and Year 2035 plus Project Buildout.

The DEIR (page 3.12-66) states that the project is anticipated to contribute about 33 percent of the total new traffic expected by 2035 at the intersections of I-605 Southbound Off-Ramp / Arrow Highway and I-605 Northbound Off-Ramp / Live Oak Avenue (consistent with Table 7-1 of the Traffic Impact Assessment [TIA] in Appendix G), and that that would be the project's contribution to the costs of required off-site improvements at those intersections.

50

However, as stated above, the project would cause a significant impact at the I-605 Northbound Off-Ramp at Live Oak Avenue intersection under Existing conditions, i.e., the impact would be caused solely by the proposed project, meaning the project would be required to fully fund the required improvement, not simply pay a portion of the cost, to mitigate its significant impact.

Furthermore, the conclusion contained in the DEIR regarding the level of significance after mitigation needs to be reevaluated, for the following reasons:

> **Mitigation Measure T-1: I-605 Northbound Off-Ramps at Live Oak Avenue – install traffic signals, construct a second northbound right-turn lane on the slip ramp, and provide a third westbound through lane on Live Oak Avenue.** These measures would require widening the northbound off-ramp, and while such a ramp widening could be physically feasible, the City of Irwindale does not have the authority to implement the improvements (i.e., Caltrans must approve it). Without Caltrans' approval, the impact would remain significant and unavoidable, and that fact must be disclosed in the DEIR.
>
> **Mitigation Measure T-2: I-605 Southbound Off-Ramp at Arrow Highway – construct a second southbound left-turn lane on the off-ramp.** This measure would require widening the southbound off-

ramp, and while such a ramp widening could be physically feasible, the City of Irwindale does not have the authority to implement the improvements (i.e., Caltrans must approve it). Without Caltrans' approval, the impact would remain significant and unavoidable, and that fact must be disclosed in the DEIR. 50 cont.

The DEIR needs to make it clear to the reader that although intersection levels of service are described on the basis of both average delay and volume-to-capacity ratio, it is the former that is used to determine unacceptable conditions and significant impacts. The latter is included only because the City of Irwindale Policy Guidelines for Traffic Impact Reports stipulates that both delay and v/c ratio be presented.

The traffic study focuses on peak AM and peak PM hours, but solid waste facilities commonly experience surges of traffic at other times during the day. At the proposed facility, most traffic streams would have only two ways in (driveways 1 and 2) and one way out (driveway 1). An off-peak traffic surge would have the potential to create congestion within the facility that could limit the availability of Driveways 1 and 2 to inbound traffic. By causing delays within the facility, such a surge could also lead to unsafe actions by drivers that are exiting at Driveway 1. Within the technical appendices, page A-47 of Appendix A to the TIA provides data from the Sunset Environmental, Inc. Transfer Station in Irvine, CA, showing inbound and outbound traffic at 15-minute intervals. Off-peak surges are apparent from 9:30 to 11:30 a.m., 12:15 to 1:00 p.m., and 3:00 to 5:00 p.m. The traffic study should also model flows within the facility under surge conditions, at the design throughput rate of 6,000 tons per day, to determine if severe congestion within the facility could lead to traffic delays and traffic safety problems on nearby streets, including the Arrow Highway and Live Oak Avenue.

As noted above in the comments regarding air quality, the additional truck trips associated with the "project variant" should be accounted for in the traffic analysis.

Chapter 4.0, Mandatory CEQA Considerations

DEIR Chapter 4.0, Mandatory CEQA Considerations, includes a discussion of Growth Inducing Effects in Section 4.1, which concludes that "potential growth inducing impacts are found to be less than significant." The analysis of growth inducement must include a consideration of whether a project removes barriers to development, which could result in growth. Typically, projects that extend or expand essential infrastructure necessary for future development are considered growth inducing, as discussed in the DEIR on page 4.0-1 (second paragraph in Section 4.1). The DEIR fails, however, to consider whether a large transfer and recovery facility would remove a barrier to future development. This could occur because transfer and recovery facilities provide essential infrastructure, necessary for processing, recovering, and shipping waste. The project would result in a major expansion of capacity for waste processing and handling in the San Gabriel Valley, which would facilitate development within the wasteshed of the facility. The California Department of Finance projects that Los Angeles County's population will increase by about 1.5 million people over the next 30 years. With waste generation rates of about one ton per capita per year, the County will have to accommodate an increase in waste production of approximately 1.5 million tons per year. The project, with its massive over-capacity for current 51

needs within the region, would provide capacity for future growth. Without the project, waste from new development in the region would have to be trucked greater distances, at higher costs, which would tend to make new development in the area less viable economically.

51 cont.

The analysis of growth inducing effects should be re-written to examine the impact of expanding waste processing and handling infrastructure, and the extent to which improved and expanded infrastructure will facilitate and induce growth in the region.

Chapter 5.0, Alternatives to the Proposed Project

The DEIR's alternatives analysis in Chapter 5.0 does not meet the CEQA requirement to examine a range of reasonable alternatives. Only two alternatives are analyzed: the required No Project alternative and a Reduced Tonnage Capacity alternative. The alternatives analysis fails to analyze an alternative location. Seven alternative sites are considered, but all are rejected for various reasons. Several of these alternative sites appear to meet the CEQA requirements of feasibility, ability to attain most of the basic objectives of the project, and ability to avoid or lessen significant impacts of the project (CEQA *Guidelines* Section 15126.6(a)), and should not have been rejected from further consideration. Some of the sites, such as site 5, Sunburst Rock and site 7, Gore Point/Triangle, are rejected because site preparation would involve greater expense than the project site for site preparation, and/or existing tenants would have to be displaced. This violates CEQA *Guidelines* Section 15126.6(b), which states that, "…the discussion of alternatives shall focus on alternatives to the project *or its location* which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or *would be more costly*" (emphasis added). It is beyond credibility to conclude that there is no suitable alternative location for the project within or close to the City of Irwindale, with its abundance of large industrial parcels. The Alternatives chapter should be re-written to include at least one feasible alternative location.

52

The failure of the DEIR to properly analyze and disclose potentially significant air quality (including odors), health risk, greenhouse gas, noise, aesthetics, land use, and traffic impacts also results in improper criteria used for selection of alternatives, since alternatives should be selected that avoid or substantially lessen any of the significant effects of the project. (It is interesting to note that compatibility of surrounding land uses was apparently used as a criterion for selection of potential alternative sites, as is evident in Section 5.4 in the discussion of Alternatives Considered but Rejected, even though Chapter 3.9, Land Use and Planning, fails to identify incompatibility with surrounding land uses as a significant adverse effect of the project.) After the deficiencies in the technical sections have been corrected, and the full range and extent of significant impacts associated with the project have been disclosed, the selection of alternatives should be re-written to craft a range of reasonable alternatives that have the ability to reduce or avoid the identified significant impacts. This would certainly result in the selection of an alternative site located at greater distance from residential and commercial areas, and that avoids or substantially lessens project impacts stemming from the project site's close proximity to these sensitive land uses.

The DEIR should also consider as an alternative the use of existing facilities, rather than construction of new facilities. For example, the Sanitation Districts of Los Angeles County owns and operates the 4,500 ton per day Puente Hills MRF/Transfer Station, located about 11 miles south of the City of Irwindale in the southern part of the San Gabriel Valley. Travel distance and time to this facility are reasonable for collection vehicles from the City of Irwindale and surrounding communities. The state-of-the-art facility has excellent access from Interstate 605, and is capable of recovering and processing a high percentage of incoming waste, resulting in substantial diversion of wastes from landfill. Furthermore, this facility is permitted to operate 24 hours per day, and has the capability of shipping materials both by truck and by rail. Rail is a much more efficient means of transportation than trucks, resulting in substantially less air pollution, including GHG emissions, criteria pollutants, and TACs, per unit of material transported. Use of the Puente Hills MRF/Transfer Station could feasibly attain the stated project objectives of increasing diversion, providing a state-of-the-art waste processing and transfer facility that minimizes environmental impacts, and using a facility that minimizes local and regional air quality and traffic impacts. This alternative would also reduce or completely avoid local aesthetic, land use, noise, and health risk impacts.

52 cont.

Neither does the DEIR consider as an alternative the use of the new Azusa Material Recovery Facility and Waste Transfer Station. This facility, which has been approved by the City of Azusa and which is now under construction, is located less than two miles from the project site. The Azusa facility will have capacity to receive and transfer 2,500 tons per day of municipal solid waste plus 500 tons per day of greenwaste for composting, and in addition capacity to process 800 tons per day of material for recycling. This facility appears to have the capability of meeting, or at least partially meeting, all of the stated project objectives, including providing employment opportunities to local citizens, assisting the City of Irwindale in achieving and surpassing the State-mandated 75% recycling goal, providing a state-of-the-art waste processing and transfer facility that minimizes environmental impacts (the facility is projected to be LEED-certified), constructing the facility at a location with nearby Interstate access (the facility has good access to I-210, via Irwindale Avenue through an industrial area), and providing a disposal outlet accessible to local waste haulers during non-peak traffic hours (the facility's Solid Waste Facility Permit allows operations 24 hours per day, seven days per week). The Azusa facility is appropriately located in an industrial area adjacent to a landfill. Use of this facility would avoid all of the site-specific impacts of the project, including aesthetic, land use, noise, and health risk impacts. The alternatives analysis should be re-written to include an alternative in which the new Azusa Material Recovery Facility and Waste Transfer Station is used for processing and transferring waste materials from the City of Irwindale and other cities served by Athens Services.

Expansion and modernization of Athens Services' existing Materials Recovery Facility/Transfer Station, located in the City of Industry, should also be considered as an alternative to the project.

Table 5.0-1, Comparative Assessment of Alternatives to the Proposed Project, shows that traffic generation and circulation impacts of the Reduced Tonnage Capacity alternative would likely be equal to that of the proposed

project. However, the Reduced Tonnage Capacity alternative would reduce truck trips by 56% compared to the project. This would result in lesser traffic and circulation impacts.

52 cont.

The description of the Reduced Tonnage Capacity alternative states that the footprint of the MRF/Transfer Station buildings for this alternative would be the same size as for the project, despite the reduced throughput capacity. No explanation is provided for this phenomenon. A smaller building would reduce construction-related impacts and could also reduce aesthetics impacts.

We hope these comments result in a revised Draft EIR that fulfills the purpose and intent of CEQA, and that fully discloses the potential environmental impacts of the proposed Irwindale MRF/TS. Should you have any questions regarding our review, please do not hesitate to contact me.

Sincerely,



Dan Sicular, Ph.D.
Senior Managing Associate

Reponses to Comment Letter 11

Response 11-1: Comment noted. The City of Irwindale, as the CEQA Lead Agency for the Project, disagrees with the assessment and affirms that the EIR meets the required standards for adequacy of an EIR as a full disclosure informational document as defined in the 2016 State CEQA Guidelines §15121.

Regardless, the City has opted to review and reassess several chapters of the Draft EIR, leading to the circulation and release of the Recirculated EIR.

In response to comments, the City revised the following chapters of the DEIR:

Executive Summary;
Chapter 1.0 Introduction;
Chapter 2.0 Project Description;
Chapter 3.3 Air Quality / Greenhouse Gas / Odor / Health Risk Assessment;
Chapter 3.12 Traffic and Circulation;
Chapter 4.0 Mandatory CEQA Considerations; and
Chapter 5.0 Alternatives.

The City has determined that based upon Public Resources Code Section, 21092.1 and State CEQA Guidelines §15088.5, recirculation of those chapters is required.

In addition to recirculating the above listed chapters, the City also recirculated all other unrevised chapters of the Draft EIR, which was originally circulated for public review from April 1, 2014 through May 16, 2014.

Where comments within this comment letter were addressed in the Recirculated Draft EIR or were re-submitted by this agency in the Recirculated Draft EIR comment period, the response is provided with the Recirculated Draft EIR Responses to Comments in Section 8.5 of this document.

Response 11-2: Please see Response 11-1. The EIR was recirculated pursuant to State CEQA Guidelines §15088.5.

Response 11-3: The Recirculated Draft EIR Chapter 2.0 Project Description exhibits were reformatted and produced in 11”x17” format for clarity.

Response 11-4: As stated on page ES-2 of the Recirculated Draft EIR, “The primarily reason for recirculating the entire Draft EIR (including chapters that have not been revised) is due to concerns raised in some of the comment letters related to the Notice of Availability. Specifically, commenters raised concerns that the previously issued Notice of Availability did not comply with all technical requirements of CEQA Guideline §15087(c). In light of this, the City has

decided to recirculate the entire Draft EIR and issue a revised Notice of Availability [now combined with the Notice of Completion] to assure that the public is not precluded a meaningful understanding of the Proposed Project and its potential effects, and where it is proposed to be located.

Response 11-5: The commenter submitted new comments on this topic. Please see Response to Comment 25-3.

Response 11-6: The commenter submitted new comments on this topic. Please see Response to Comment 25-4.

Response 11-7: The proposed MRF does not have any potential to obstruct views of the San Gabriel Mountains from any publically accessible residential viewpoints within the City of Baldwin Park. Page 3.2-6 of the Draft EIR provides a view onto the project site from the south. This sight was specifically chosen due to the location, which is from the neighboring City of Baldwin Park. The DEIR states: "*In the background, the viewer sees the Dam (approximately 100 feet) and the San Gabriel mountains (approximately 10,000 feet elevation at its highest point; however that peak not seen in this photo). As designed, the Proposed Project will have a maximum height of 61 feet atop its decorative towers (Refer to Exhibits 3.2-17 and 3.2-18 for Exterior Elevations).*"

Page 3.2-8 of the Draft EIR states: "*Viewpoint 3 provides the existing line of sight from the corner of Baldwin Park Boulevard and Joanbridge Street. This viewpoint provides the existing view of the Valley County Water District water tanks (approximately 40 feet high), a commercial center, Proposed Project site, and Santa Fe Dam. This viewpoint provides a visual snapshot of the existing conditions from the closest sensitive receptor within line of sight of the site. The approximate measurement is ~428 feet from the southern property line to the closest residential property line (measurement taken from Google earth map) The southeastern corner of Baldwin Park Boulevard and [eastern] Joanbridge Street is addressed as 5130 Baldwin Park Boulevard and the northwestern corner of Baldwin Park Boulevard and [western] Joanbridge Street is addressed as 14156 Joanbridge Street*."

The Santa Fe Dam is a significantly taller and more massive structure than the proposed MRF, and the proposed project has no potential to obstruct the view of the San Gabriel Mountains, which can only be seen above the Dam itself. Another reference point for height is the Valley County Water District's two water tanks which are located in the City of Baldwin Park across Live Oak Avenue from the proposed project site, and which do block views of the mountains from the nearest residence since they are so much closer to the residential area. For reference, Exhibit 3.2-4 is included below.

EIR Exhibit 3.2-4 Viewpoint 3



Responses 11-8: With regard to construction emissions, (THRESHOLD AQ-1) the discussion in the Draft EIR was revised in the Recirculated Draft EIR on pages 3.3-26 and 27 as follows (new text is underlined and ~~strikethrough~~ is used for deleted text):

"The MRF/TS and Fueling Facility/Convenience Store project would be constructed in a single phase estimated to require 18 months. Construction of the Proposed Project would commence in 2016. An average daily construction crew of 84 employees would be present on-site during construction. **Table 3.3-5** provides the estimated construction schedule for each phase: demolition, site preparation, grading, building construction, paving, and coating."

Table 3.3-5 Estimated Construction Schedule

Phase	Description	Start	End	Days
1	Demolition	1/1/2015	1/28/2015	20
2	Site Preparation	1/29/2015	2/11/2015	10
3	Grading	2/12/2015	3/25/2015	30
4	Building Construction	3/26/2015	5/5/2016	291
5	Paving	5/6/2016	6/2/2016	20
6	Architectural Coating	6/3/2016	6/30/2016	20
SOURCE: CARB CalEEMod, 2013.				

As of the preparation of this Final EIR, the start and end dates now extend into late 2016 and/or 2017.

Response 11-9: The Recirculated Draft EIR and CalEEMod analysis was revised to include haul truck trips associated with soil export during the project site grading. A total of 15,000 cubic yards of soil export is anticipated during construction which would result in approximately 1,875 haul truck trips. As the project site is clear of structures, minimal demolition would be required and no haul truck trips for export of demolition debris was included. The unmitigated and mitigated construction emission results within Tables 3.3-9 and 3.3-10 on pages 3.3-30 and 3.3-31 were revised to account for the haul truck trip emissions associated with grading and export of soil materials. Therefore, with regard to construction emissions, (TRESHOLD AQ-1) the discussion in the Draft EIR was revised in the Recirculated Draft EIR on pages 3.3-27 and 28 as follows (new text is underlined and ~~strikethrough~~ is used for deleted text):

"Construction-related emissions are expected to be short-term, but may still cause adverse effects on air quality. Construction activities include site preparation, earthmoving, and general construction. Site preparation includes land clearing and grubbing. Earthmoving activities include cut-and-fill operations, soil compaction, and grading. General construction includes adding improvements such as roadway surfaces, structures, and facilities. The emissions generated from these construction activities include:

- Dust (including PM_{10} and $PM_{2.5}$) primarily from "fugitive" sources (i.e., emissions released through means other than through a stack or tailpipe) such as soil disturbance;
- Combustion emissions of criteria air pollutants (ROG, NO_x, CO, PM_{10}, and $PM_{2.5}$) primarily from operation of heavy off-road construction equipment (primarily diesel-operated), portable auxiliary equipment, and construction worker automobile trips (primarily gasoline-operated); and
- Evaporative emissions (e.g., ROG) from asphalt paving and architectural coatings.

Construction activities would include equipment such as loaders, excavators, pavers, and haul trucks. **Table 3.3-6** provides a list of expected construction equipment by construction phase.

Table 3.3-6 Construction Equipment

Phase	Equipment	Amount	Daily Hours	HP	Load Factor
Demolition	Concrete/Industrial Saws	1	8	81	0.73
Demolition	Excavators	3	8	162	0.38
Demolition	Rubber Tired Dozers	2	8	255	0.40
Site Preparation	Rubber Tired Dozers	3	8	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8	97	0.37
Grading	Excavators	2	8	162	0.38
Grading	Graders	1	8	174	0.41
Grading	Rubber Tired Dozers	1	8	255	0.40
Grading	Scrapers	2	8	361	0.48
Grading	Tractors/Loaders/Backhoes	2	8	97	0.37
Building Construction	Cranes	1	7	226	0.29
Building Construction	Forklifts	3	8	89	0.20
Building Construction	Generator Sets	1	8	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7	97	0.37
Building Construction	Welders	1	8	46	0.45
Paving	Pavers	2	8	125	0.42
Paving	Paving Equipment	2	8	130	0.36
Paving	Rollers	2	8	80	0.38
Architectural Coating	Air Compressors	1	6	78	0.48
SOURCE: CARB CalEEMod, 2013.					

As the project site is clear of structures, minimal demolition would be required. Secondly, the project site is level and thus, minimal site preparation and grading would be required. Site preparation would consist of land clearing and grubbing, haul truck trips would likely be required to export the materials from the project site. Based on the information provided in the Preliminary Grading Plan, a total of 15,000 cubic yards of soil export is anticipated during construction. **Table 3.3-7** provides a list of the expected trips and trip lengths by construction phase.

Table 3.3-7 Construction Trips and Trip Lengths

Phase	Worker Trips	Vendor Trips	Haul Truck Trips	Worker Trip Length (mile)	Vendor Trip Length (mile)	Haul Trip Length (mile)
Demolition	15	0	0	14.7	6.9	20.0
Site Preparation	18	0	0	14.7	6.9	20.0
Grading	20	0	1,875	14.7	6.9	20.0
Building Construction	128	50	0	14.7	6.9	20.0
Paving	15	0	0	14.7	6.9	20.0
Architectural Coating	26	0	0	14.7	6.9	20.0
SOURCE: CARB CalEEMod, 2013.						

Construction-related fugitive dust emissions would vary from day to day, depending on the level and type of activity, silt content of the soil, and the weather. High winds (greater than 10 miles per hour) occur infrequently in the area, less than two percent of the time. In the absence of mitigation, construction activities may result in significant quantities of dust, and as a result, local visibility and PM_{10} concentrations may be adversely affected on a temporary and intermittent basis during construction. In addition, the fugitive dust generated by construction would include not only PM_{10}, but also larger particles, which would fall out of the atmosphere within several hundred feet of the site and could result in nuisance-type impacts."

Response 11-10: The Recirculated Draft EIR and CalEEMod were revised to incorporate a project site of 17.22 acres. The unmitigated and mitigated construction emission results within Tables 3.3-9 and 3.3-10 on pages 3.3-30 and 3.3-31 were revised to account for the 17.22 acre project site and corresponding grading emissions.

With regard to construction emissions (THRESHOLD AQ-1) the discussion in the Draft EIR was revised in the Recirculated Draft EIR on page 3.3-28 as follows (new text is underlined and ~~strikethrough~~ is used for deleted text):

"The project site consists of approximately 17 acres. For purposes of estimating project site grading emissions, **Table 3.3-8** provides a list of land uses, footprint, and acreage."

Table 3.3-8 Project Land Use Dimensions

Land Use	Size	Acreage
MRF/TS	244,617 square feet	15.85
Convenience Store with Service Station	2,390 square feet	0.05
Parking Lot	147 spaces	1.32

Response 11-11: The Recirculated Draft EIR and CalEEMod were revised to incorporate the ROG emissions from the construction of asphalt pavement surfaces. The unmitigated and mitigated construction emission results within Tables 3.3-9 and 3.3-10 on pages 3.3-30 and 3.3-31 were revised to account for the ROG emissions from the 147 space parking lot.

Therefore, with regard to construction emissions (THRESHOLD AQ-1) the discussion in the Draft EIR was revised in the Recirculated Draft EIR on page 3.3-29 as follows (new text is underlined and ~~strikethrough~~ is used for deleted text):

"The construction emissions inventory also accounts for asphalt paving off-gassing emissions associated with construction of parking lots and other outdoor paved areas."

Response 11-12: In addition to the daily watering application, the Recirculated Draft EIR includes fugitive dust mitigation measures (some measures of which are easier to quantify with regard to control efficiency than other measures) recommended by the SCAQMD such as development of a grading plan, limiting vehicle speed on unpaved surfaces to 15 mph, track-out control, a wheel washing system, maintenance of truck freeboard of 12 inches, suspending construction activities during high wind events of over 25 mph, and watering of stockpiles (see page 3.3-32). The daily water or soil stabilizers and these other measures are documented within the Recirculated Draft

EIR to result in a fugitive dust control efficiency of 75 percent or greater (see page 3.3-29), although CalEEMod results in a conservative estimation of approximately 60 percent. The unmitigated and mitigated construction emission results are reported in Tables 3.3-9 and 3.3-10 on pages 3.3-30 and 3.3-31.

Other mitigation measures beyond three water applications per day include limiting vehicle speed, replacing ground cover, soil stabilizers, and suspending construction activities during high wind events.

Therefore, with regard to construction emissions (THRESHOLD AQ-1) the discussion in the Draft EIR was revised in the Recirculated Draft EIR on pages 3.3-29 and 30 as follows (new text is underlined and ~~strikethrough~~ is used for deleted text):

"Erosion control measures and water programs are typically undertaken to minimize these fugitive dust and particulate emissions. A dust control efficiency of 75 percent due to daily watering and other measures was estimated. Application of water reduces fugitive dust emissions by a factor of approximately 34 to 68 percent (per SCAQMD *CEQA Air Quality Handbook*). It is assumed that one water application per day reduces fugitive dust by 34 percent, two water applications per day reduces fugitive dust by 50 percent, and three water applications per day reduces fugitive dust by 68 percent. Applying soil stabilizers to inactive areas reduces fugitive dust by 84 percent. Additional measures would allow for a total fugitive dust control efficiency of at least 75 percent and compliance with SCAQMD Rule 403. Furthermore, application of appropriate emission control devices, the use of newer equipment, or other exhaust mitigation measures would reduce exhaust particulate matter by 50 percent.

SCAQMD Rule 403 requires extensive measures be followed to control fugitive dust. Within CalEEMod specific mitigations measures and control efficiencies include soil stabilizer for unpaved roads (84 percent), replace ground cover of area disturbed (5 percent), water exposed area with frequency of three times daily (61 percent), and limited vehicle speed on unpaved roads to 15 mph.

NO_x, ROG, PM_{10}, $PM_{2.5}$, and CO construction emissions for the Proposed Project were estimated for a worst-case day based on maximum crew and truck trips. Emissions are based on criteria pollutant emission factors from CalEEMod." The EIR does not underestimate the construction related dust emissions with implementation of the identified mitigation measures.

Response 11-13: See Response to Comment 13-4.

To document construction emission reductions due to **MM-AQ-1 through AQ-11** the discussion in the Draft EIR was revised in the Recirculated Draft EIR on page 3.3-31 as follows (new text is underlined and ~~strikethrough~~ is used for deleted text):

"On an annual basis, the fugitive dust control efficiency for PM10 determined by CalEEMod is 28 percent and the fugitive dust control efficiency for PM2.5 determined by CalEEMod is 36 percent. On a daily basis, the fugitive dust control efficiency for PM10 determined by CalEEMod is 57 percent and the fugitive dust control efficiency for PM2.5 determined by CalEEMod is 60 percent. Although the Project is required and would be expected to adhere to the provisions of SCAQMD Rules 402 and 403 regarding construction-related fugitive dust control, (**MM AQ-1**) is required to ensure the City verifies compliance.

On an annual basis, the exhaust control efficiency for PM10 determined by CalEEMod is 55 percent and the exhaust control efficiency for PM2.5 determined by CalEEMod is 53 percent. On a daily basis, the exhaust control efficiency for PM10 determined by CalEEMod is 56 percent and the exhaust control efficiency for PM2.5 determined by CalEEMod is 53 percent. **MM AQ-2 through AQ-9~~10~~** are designed to minimize combustion emissions during construction activities. Some of the additional mitigation measures of particulate exhaust are more difficult to quantify and thus, it is likely that implementation of **MM AQ-2 through AQ-9** would result in higher exhaust control efficiency."

Response 11-14: The analysis in the Recirculated Draft EIR is more conservative than the earlier analysis and all the trips are analyzed to be new trips. The City believes that the original analysis was supported with substantial evidence. However, out of an abundance of caution the Traffic Analysis in the RDEIR was revised to indicate that all trips to the MRF/TS are new trips. With regard to operational emissions (THRESHOLD AQ-2) the discussion in the Draft EIR was revised in the Recirculated Draft EIR on page 3.3-35 as follows (new text is underlined and ~~strikethrough~~ is used for deleted text):

"~~For purposes of assessing the impacts to air quality from vehicle emissions~~ The Proposed Project is expected to result in relocated emissions. That is, a significant portion of the truck trips associated with trash collection and transfer of solid waste and recyclable materials that will be coming to and leaving the Project site are and were occurring before and at the time of the publication of the Notice of Preparation and the start of the preparation of this EIR. As described in more detail, the applicant has provided information to the City that more than two-thirds of the materials that will be driven to and away from the Proposed Project facility are currently being taken to other facilities in the South Coast Air Basin ~~(Basin)~~. Therefore, a substantial amount of emissions that will come from solid waste collection trucks and transfer trucks coming to and from the Project site are existing emissions already occurring in the Basin and will not be new emissions created from new trips that are a reasonable foreseeable result of the development of the Project. To assess air quality impacts from off-site vehicle emissions that will foreseeably result from the Project, the Draft EIR published in April 2014 assumed ~~assumes~~ a baseline condition that took ~~takes~~ into consideration these existing relocated emissions. However, to be extremely conservative and to avoid under-representing any potential air quality impacts from the Proposed Project, the City has analyzed all the trips to be new trips in this Recirculated DEIR. ~~reduced the identified existing truck trips, and their associated emissions, in half. This is explained in more specific detail below.~~"

Response 11-15: The screening-level LST using lookup tables (THRESHOLD AQ-3) in the Draft EIR was replaced with a refined-level LST analysis using AERMOD in the Recirculated Draft EIR on pages 3.3-47 through 52.

Response 11-16: Haul truck trips have been accounted for in the Recirculated Draft EIR analysis for construction activities. See Response to Comment 11-9.

Response 11-17: See Response to Comment 11-15. The analysis was corrected such that the SCAQMD's 24-hour threshold for operational $PM_{2.5}$ concentrations is 2.5 $\mu g/m^3$ was used and the maximum 24-hour $PM_{2.5}$ concentration was used.

Response 11-18: The analysis in the Recirculated Draft EIR was corrected to use a round trip distance for the collection trucks.

Response 11-19: Tables for the daily unmitigated and daily mitigated Proposed Project emissions from Project Operations and Project Variant in the Draft EIR were corrected in the Recirculated Draft EIR on pages 3.3-40, 41, and 45 to include a truck idle period of five minutes. These Include Tables 3.3-13 through 15 of the Recirculated Draft EIR. Note that the Project Variant has been eliminated since the Water District withdrew its proposal to acquire the 1.9 acre portion of the proposed project site.

Response 11-20: The Proposed Project Variant unmitigated emissions are provided in Table 3.3-14 of the Recirculated Draft EIR**.** The Project Variant involved storage of 23 transfer trucks offsite. There is very minimal difference between the Proposed Project and Project variant emissions, and in any case, the Project Variant has been eliminated as an alternative.

Response 11-21: GHG emission calculations were revised in a manner similar (i.e., baseline condition, travel distance, etc.) to the criteria pollutants.

Response 11-22: The determination of baseline GHG emissions was revised in a manner similar to the criteria pollutants. See Response to Comment 11-14.

The Draft EIR used what the City considers to be a conservative baseline of air emissions for the Proposed Project. However, the SCAQMD noted that while many MRF projects in the region were using similar baselines (considering vehicle emissions to be "re-directed" and not new emissions), the SCAQMD would like the project to consider 100 percent of vehicle trips to be considered "new trips". The air quality analysis has been revised to evaluate the project using this approach and consequently the regional air quality emissions are estimated to be higher than the emissions estimated in the Draft EIR (which considered 50 percent of the emissions to be re-directed emissions within the basin and thus estimated lower "net" new emissions). It should be noted that this change in the evaluation of regional emissions did not alter the assessment of local emissions, because the air quality analysis in the Draft EIR evaluated 100 percent of vehicle trips to the Proposed Project site as new local emissions.

See also Response to Comment 13-5.

Response 11-23: Although difficult to accurately measure (and therefore not quantified for this analysis), the Proposed Project is reasonably expected to reduce the amount of material (greater sorting and recycling capabilities) sent to regional landfills, thus reducing landfill emissions and truck traffic. The regional efficiencies would reduce both criteria pollutants and GHG emissions below what is stated in this analysis because all of the solid waste handled at the Proposed Project

would otherwise be handled by other transfer trucks travelling between an existing transfer station and landfill.

Response 11-24: Transfer trucks parked outdoors on the project site would be subject to MM AQ-20 for control of potential odors. Upon substantiation of an odor complaint, the Applicant/Operator is required to meet with the City within 48 hours to determine actions to remedy the odor complaint. A detailed action plan shall be prepared within 72 hours of the meeting identifying the steps to be taken to remedy the issue. All remedies shall be at the sole expense of the Applicant/Operator, and shall be implemented / installed as soon as feasible.

The action plan could require modifications to the operations until odors are adequately controlled.

Regarding odors from trucks accessing and leaving the facility, see Response to Comment 5-2.

To include results associated with the health risk assessment and recreational users at the Santa Fe Recreational Area, the discussion in the Draft EIR was revised in the Recirculated Draft EIR on page 3.3-57 as follows (new text is underlined and ~~strikethrough~~ is used for deleted text):

"Exposure to non–carcinogenic substances would be significant if the Hazard Index (HI) exceeds 1.0. The Hazard Index is the ratio of a hazardous air pollutant concentration to its Reference Concentration, or safe exposure level. If this "hazard index" exceeds one, people are exposed to levels of hazardous air pollutants that may pose non-cancer health risks. The maximum chronic hazard index is less than 0.01 ~~0.04~~ and thus less than significant. The maximum acute hazard index; including the recreational user within the Santa Fe Dam area, is ~~0.16~~ less than 0.01 and thus less than significant."

Response 11-25: The facility is proposed to have exhaust air drawn through odor-absorbing activated carbon. The use of odor neutralizing misting systems is common at large MRF/transfer stations. At this facility the applicant has indicated they would use a non-toxic neutralizing misting system to control odors not fully adsorbed by the activated carbon, similar to that used by Athens at their City of Industry MRF.

Response 11-26: The EIR does not indicate that health risks have been substantially underestimated, and the HRA and LST and supporting modeling used conservative assumptions throughout in an effort to capture a reasonable worst-case scenario. State CEQA Guidelines §15147 direct that: "Placement of highly technical and specialized analysis and data in the body of an EIR should be avoided through inclusion of supporting information and analyses as appendices to the main body of the EIR."

Appendix C contains a detailed explanation of the methodology, assumptions, and data associated with the HRA and LST including terms and definitions, uncertainties, hazards identifications, exposure assessment, model selection, model options (e.g., rural vs. urban coefficients), the location of receptors, meteorological data, toxicity assessment, and risk characterization.

The data files include ambient monitoring data, the construction and operation emission calculation spreadsheets, the service station emission calculation spreadsheets, the CalEEMod input and output, the EMFAC and OFFROAD input and output files, the AERMOD dispersion modeling files with meteorological and terrain data, and the calculation spreadsheets for the HRA and LST analysis.

Collectively, this information does provide a qualified technical reviewer the substantial information needed to independently verify the analytical results.

Response 11-27: With regard to the service station emissions the discussion in the Draft EIR was revised in the Recirculated Draft EIR on pages 3.3-39 and 40 as follows (new text is underlined and ~~strikethrough~~ is used for deleted text):

Service Station Emissions

"Fuel-dispensers emit VOCs during dispensing, storage tank breathing, and incidental spillage. Emissions from fuel dispensers are regulated by SCAQMD Rule 461 (Gasoline Transfer and Dispensing), which requires the installation of vapor recovery systems that can reduce vapor loss during dispensing by as much as 95 percent. Based on the average throughput for similar-sized fuel dispensing stations in California, the service station would have an estimated throughput of ~~no more than 2.0~~ 1.6 million gallons of gasoline and 0.34 million gallons of diesel per year[1]. Short-term health impacts (24 hours or less) were based on the maximum expected hourly throughput. Long-term health impacts (annual and 70-year lifetime) were based on typical annual throughput. The VOC emissions from the service station activities, such as breathing, working, refueling, and spillage, were estimated using emission factors from "Scenario 6B" of the California Air Pollution Control Officers Association (CAPCOA) *Air Toxics "Hot Spots" Program Gasoline Service Station Industry-wide Risk Assessment Guidelines*. As stated above, customer trips to the on-site service station were estimated using default vehicle and fleet mix parameters in CalEEMod and trip rates provided by the Project Applicant and the traffic report for the Proposed Project."

Response 11-28: The cumulative impact discussion for air quality, GHG, odor and HRA does address the significance of the project's contribution to cumulative health risks, and is based upon reasonable worst-case assumptions for the applicable parameters. The significance thresholds for health risks are explicitly the increases in risk caused by the project's contribution to the total of all other sources. With regard to existing health risks in Irwindale, the discussion in the Draft EIR was revised in the Recirculated Draft EIR on pages 3.3-8 and 3.3-9 as follows (new text is underlined and ~~strikethrough~~ is used for deleted text):

"Due to City concerns about possible cancer risks from the industrial activity in the City, the City funded a study by Soil Water Air Protection Enterprise (SWAPE) in 2013 to evaluate the cancer rates in the City of Irwindale. The effort was in collaboration with the Cancer Surveillance Program. The Cancer Surveillance Program manages a database of all cancer diagnoses, recorded by the patient's residential address within Los Angeles County, and reports these data to the California Cancer Registry. In addition to total cancer cases, four common cancers were evaluated from 2001 through 2010: breast, colon, lung and oropharyngeal, and prostate. Other cancers could not be evaluated for confidentiality reasons, because they occurred in such low numbers. Annual age-adjusted incidence rates were calculated for Irwindale, bordering census tracts, Los Angeles

[1] California Energy Commission, Retail Fuel Report and Data for California, http://energyalmanac.ca.gov/gasoline/piira_retail_survey.html

County, and California. Irwindale's rates were then evaluated against the rates of the other three regions.

The cancer assessment found that the Irwindale area has no significant excess of breast, prostate, colon, and lung/oropharyngeal cancers relative to neighboring census tracts, Los Angeles County, and California. In fact, Irwindale was found to have lower cancer incidence than surrounding census tracts, Los Angeles County, and California. In fact, Irwindale was found to have lower cancer incidence than surrounding census tracts, Los Angeles County, and California. The SWAPE report is included in within **Appendix C** of this RDEIR.[2]"

Response 11-29: The applicant is proposing to include a six pump vehicle fueling facility. Fuel dispensing operations would result in reactive organic gas (ROG) emissions which include TACs such as benzene, 1,3-butadiene, and formaldehyde (although the 16 air toxics contained within gasoline fuel were all included in the analysis). These ROG emissions would result from four activities; loading and breathing losses (both related to the underground storage tanks), as well as refueling and spillage (both related to the fuel pumps). The following are additional details concerning these emission points:

- Loading emissions occur when a cargo tank truck unloads gasoline to the storage tanks at the gasoline station. Storage tank vapors are emitted from the vent pipe during the initial fuel transfer period. These emissions are significantly reduced when the vent pipe includes a pressure/vacuum valve.

- Gasoline vapors are emitted from the storage tank vent pipe due to temperature and pressure changes within the storage tank vapor space.

- During the refueling process, gasoline vapors are emitted at the vehicle/nozzle interface.

- Spillage emissions occur from the spills during vehicle fueling.

Response 11-30:

This comment reflects a misunderstanding of the mathematics of PM measurement. The CARB's Findings of the Scientific Review Panel on The Report on Diesel Exhaust (http://www.arb.ca.gov/toxics/dieseltac/de-fnds.htm) states that approximately 92 to 94 percent of the mass of diesel particles are less than 2.5 microns in diameter ($PM_{2.5}$). PM_{10} includes all particles smaller than 10 microns in diameter, including all particles less than 2.5 microns in diameter ($PM_{2.5}$). One micron equals one-millionth of a meter. Particles with a diameter between 2.5 and 10 microns are sometimes referred to as "coarse particles". Particles with a diameter of 2.5 microns and less are referred to as "fine particles". Combustion emissions tend to be fine particles, whereas fugitive dust and vehicle brake and tire wear are mostly coarse particles. The available evidence

[2] Soil Water Air Protection Enterprise, *Air Quality and Cancer Incidence Assessment of Irwindale, California*, January 2014.

indicates that smaller particles in the fine and ultrafine size ranges are generally more harmful than coarse particles. Smaller particles typically remain suspended in the air for longer periods. [3]

Diesel PM is a subset of $PM_{2.5}$ that is emitted by diesel engines. The CARB has identified diesel PM as a carcinogenic pollutant that may cause lung cancer. Exposure to diesel PM may cause a wide range of respiratory and cardiovascular effects in addition to lung cancer. To the extent that diesel PM contributes to premature mortality, analysis suggests that this is primarily due to its role as a component of $PM_{2.5}$ Thus, the $PM_{2.5}$ exhaust emissions were represented as DPM as a reasonable worst-case parameter in the modeling.

Response 11-31: The discussion in Appendix C does explain the estimation of emission factors and the assumptions used. As documented as part of the Air Quality Emissions section of Appendix C, vehicular emissions were computed using the CARB's emission factor model, EMFAC2011, to estimate on-road emissions. Employee trips were modeled using the light-duty auto classification. Paved road dust, break wear, and tire wear particulate emissions were also accounted for and included in the analysis using EMFAC2011 factors and methodologies from CARB and the USEPA.

The Proposed Project proposes a maximum throughput of up to 6,000 tons per day. The maximum daily number of truck trips would be 2,456 truck round trips (including collection trucks, transfer trucks and self-haul trucks). The daily trips include 249 self-haul trips, 1,137 packer truck trip, 66 end dump truck trips, 445 roll-off truck trips, and 559 transfer truck trips. The Proposed Project also includes 345 employee trips. An additional 751 daily trips would be associated with the convenience store/service station.

The average travel distances for the Proposed Project are estimated to be 9.1, 8.4, and 16.6 miles for the collection/roll-off trucks, self-haul trucks, and employees, respectively. Employee trips are a composite of gasoline and diesel vehicles.

Vehicular emissions were computed using the CARB's emission factor model, EMFAC2011[4], to estimate on-road emissions. Transfer trucks, roll-off trucks, packer trucks, and end-dump trucks were modeled using the T7 Solid Waste Collection Vehicle classification, which is a worst-case heavy-heavy duty truck emission factor for solid waste collection vehicles. Self-haul trucks would have substantially smaller payload capacities and were modeled using light-heavy duty truck emission factors. Paved road dust, break wear, and tire wear particulate emissions were also accounted for and included in the analysis using EMFAC2011 factors and methodologies from CARB and the USEPA. Vehicles speeds are assumed to be 30 miles per hour. Idling emissions were calculated using idling emission factors from the EMFAC2011 model and idle limits of five minutes.

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[3] BAAQMD, Understanding Particulate Matter: Protecting Public Health in the San Francisco Bay Area, November 2012 (http://www.baaqmd.gov/~/media/Files/Planning%20and%20Research/Plans/PM%20Planning/UnderstandingPM_Draft_Aug%2023.ashx), California Air Resources Board, Risk Reduction Plan to reduce Particulate Matter Emissions from Diesel-fueled Engines and Vehicles, October 2000 (http://www.arb.ca.gov/diesel/documents/rrpfinal.pdf), and California Air Resources Board, Characterization of Ambient PM10 and PM25 in California, June 2005 (http://www.arb.ca.gov/pm/pmmeasures/pmch05/stateover05.pdf).

[4] CARB EMFAC2007 Emissions Model, http://www.arb.ca.gov/msei/onroad/latest_version.htm.

Criteria pollutant emissions associated with on-road vehicles were calculated by combining the activity information with emissions factors, in grams per mile and grams per idle hour, derived using the EMFAC2011. Emissions calculations were based on **Equation 1**. The EMFAC2011 emissions factors are summarized on **Tables AQ-1 through AQ-4** of Appendix C for employee vehicles, haul trucks, and truck idling. EMFAC2011 estimates emission factors through 2035. Project activities beyond 2035 assumed the same emission factors as 2035. Significant decreases in emissions occur from 2015 through 2035 due to regulatory requirements.

Response 11-32: As documented in the model section and options section of Appendix C (page 16), the selection of the appropriate dispersion coefficients depends on the land use within three kilometers (km) of the project site. The land use typing was based on the classification method defined by Auer (1978); using pertinent United States Geological Survey (USGS) 1:24,000 scale (7.5 minute) topographic maps of the area. If the Auer land use types of heavy industrial, light-to-moderate industrial, commercial, and compact residential account for 50 percent or more of the total area, the *Guideline on Air Quality Models* recommends using urban dispersion coefficients; otherwise, the appropriate rural coefficients were used. Using GIS, the following criteria apply:

- If land use types I1, I2, C1, R2, and R3 account for 50 percent or more of the area, use urban dispersion coefficients; otherwise, use appropriate rural dispersion coefficients.

- If average population density is greater than 750 people/km^2, use urban dispersion coefficients; otherwise use appropriate rural dispersion coefficients.

Based on observation of the area surrounding the project site, urban dispersion coefficients were applied in the analysis. This is very conservative given the proximity of the Santa Fe Dam and its very large recreation area and habitat conservation lands within 3 kilometers to the east of the project site, and the large San Gabriel River corridor downstream from the Dam that all lie within 3 kilometers north and northwest of the project, but are not “urban” land uses as they are usually characterized by either Auer or the USGS. The general effect of an urban area is to create enough additional turbulence, due to the buildings and urban "heat island" effects, which enhance plume dispersion. Appendix C **Exhibits 2 and 3** display the land use and population density.

Response 11-33: This comment is incorrect and the project’s health risks have not been underestimated. The toxicity values for DPM used in this analysis were based on OEHHA guidance. These toxicity values are for carcinogenic effects and chronic health impacts. The primary pathway for exposures was assumed to be inhalation and carcinogenic and non-carcinogenic effects were evaluated separately. The Cancer Potency Factor for DPM was established by the OEHHA as 1.1 mg/kg-day for 70 years. The HARP incorporates OEHHA cancer potency factors for additional air toxics included in the analysis.

The HRA was conducted following methodologies in SCAQMD *Supplemental Guidelines for Preparing Risk Assessments for the Air Toxics "Hot Spots" Information and Assessment Act*[5] and in the California OEHHA *Air Toxics Hot Spots Program Guidance.*[6] This was accomplished by applying the highest estimated concentrations at the receptors analyzed to the established cancer risk estimates and acceptable reference concentrations (RfC) for non-cancer health effects.

The toxicity values used in this analysis were based on OEHHA guidance. These toxicity values are for carcinogenic effects and acute/chronic health impacts. The primary pathway for exposures was assumed to be inhalation and carcinogenic and non-carcinogenic effects were evaluated separately. The incremental risks were determined for each emission source of TAC and summed to obtain an estimated total incremental carcinogenic health risk.

Cancer risk estimates also incorporate age sensitivity factors (ASFs). This approach provides updated calculation procedures that factor in the increased susceptibility of infants and children to carcinogens as compared to adults. OEHHA recommends that cancer risks be weighted by a factor of 10 for exposures that occur from the third trimester of pregnancy to 2 years of age, and by a factor of 3 for exposures from 2 years through 15 years of age. For estimating cancer risks for residential receptors over a 70 year lifetime, the incorporation of the ASFs results in a cancer risk adjustment factor (CRAF) of 1.7.

Per OEHHA guidance for cancer risk analysis, a continuous exposure of 24 hours per day, 350 days per year for a 70-year lifetime is assumed for residents. This is a highly conservative assumption, since most people do not remain at home all day and on average residents change residences every 11 to 12 years. In addition, this analysis assumes that residents are experiencing outdoor concentrations for the entire exposure period. For children at school sites, exposure is assumed to occur 10 hours per day for 180 days (or 36 weeks) per year.

For occupational receptors, SCAQMD guidance suggests that the exposure be based on 8 hours per day, 5 days per week, 245 working days per year, and a 40-year working lifetime. This is a conservative assumption, since most people do not remain at the same job for 40 years.

The SCAQMD also suggests specific daily breathing rates and exposure value factors for estimating cancer risks. The 80th percentile adult breathing rate of 302 liters per kilogram per day (L/kg-day) was used to determine cancer risks to residents from exposure to TAC. The residential exposure frequency and duration was assumed to be 350 days per year and 70 years. For children, OEHHA recommends assuming a breathing rate of 581 L/kg-day to assess potential risk via the inhalation exposure pathway. This value represents the upper 95th percentile of daily breathing rates for children. The modeled TAC concentrations were used to represent the exposure concentrations in the air. The inhalation absorption factor was assumed to be 1. Cancer risk to residential receptors based on a 70-year lifetime exposure. Cancer risk estimates for children at

[5] South Coast Air Quality Management District. Supplemental Guidelines for Preparing Risk Assessments for the Air Toxics "Hot Spots" Information and Assessment Act. June 2011. *http://www.aqmd.gov/docs/default-source/planning/risk-assessment/ab2588_guidelines.pdf?sfvrsn=0*

[6] Office of Environmental Health Hazard Assessment. *Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessment*. August 2003. http://oehha.ca.gov/air/hot_spots/pdf/HRAguidefinal.pdf

school sites are calculated based on 9 year exposure duration. **Table AQ-10** provides a summary of the risk assessment exposure parameters used in the analysis.

Table AQ-10: Health Risk Assessment Exposure Parameters

Receptor	Breathing Rate (DBR)	Cancer Risk Adjustment Factor (CRAF)	Daily Exposure	Annual Exposure	Exposure Duration (ED)
Worker	149	1.7	12 hours	245 days	40 year
Adult	302	1.7	24 hours	350 days	70 years
Child	581	10	24 hours	350 days	3 years
School	581	3	10 hours	180 days	9 years

Source: Office of Environmental Health Hazard Assessment (OEHHA), 2003. *Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments*, http://www.oehha.org/air/hot_spots/pdf/HRAguidefinal.pdf and South Coast Air Quality Management District, Risk Assessment Procedures for Rules 1401 and 212, July 1, 2005, http://www.aqmd.gov/prdas/risk%20assessment/riskassessment.html

Response 11-34: As explained in detail in Response to comment 11-26 above, the documentation contained in Appendix C provides a qualified technical reviewer the substantial information needed to independently verify the analytical results.

HARP modeling was not used in the assessment. Cancer potency factors were based on California Office of Environmental Health Hazards Assessment Toxicity Criteria Database, 2013, http://www.oehha.ca.gov/tcdb/."

AERMOD utilized unit emission rates (1 gram per second). Unit concentrations were based on the use of AERMOD dispersion modeling algorithms, control options (e.g., urban coefficients), emission estimates, source release characteristics, meteorological and terrain data, and receptor locations. The resultant unit concentrations by receptor (based on AERMOD output files and emission calculation spreadsheets, which are part of Appendix C) were adjusted by the actual emission rate by emission source (i.e., trucks, onsite equipment, etc.). The actual concentration by receptor was then compared to the ambient concentration thresholds. The concentration exposure values were also used to estimate the cancer risk (by accounting for exposure parameters for residences, school children, and offsite workers) and health impacts. The worst-case year of operation was used in the LST analysis and the health impacts. The 70-year average (i.e., lifetime exposure levels) emission rates were used in the cancer risk calculations. These 70-year average emission rates account for changes in combustion emissions rates as vehicles and equipment provide greater exhaust efficiency in future years and the project duration.

Response 11-35: To provide cancer burden results the discussion in the Draft EIR was revised in the Recirculated Draft EIR on page 3.3-58 as follows (new text is underlined and ~~strikethrough~~ is used for deleted text):

"A cancer burden analysis is a form of population-level risk evaluation that is commonly used for risk communication purposes to provide perspective on the magnitude of the potential public health impacts posed by a facility. The cancer burden was estimated following methods recommended in OEHHA guidance. The cancer burden for each of these receptors is calculated by multiplying the cancer risk by the residential population at each receptor. The total cancer burden is the sum of the cancer burden for each of the census receptors. The results of the cancer

burden analysis provide an estimate of the number of excess cancer cases in the exposed population expected from lifetime (70-year) exposure to proposed facility emissions. The results of the cancer burden analysis indicate that less than one case (0.0140.005) of cancer would be expected within three kilometers of the Proposed Project the zone of impact. A value of 0.5 is considered significant by the SCAQMD. Therefore, the Proposed Project would have a less than significant impact towards the cancer burden."

Response 11-36: As explained in detail in Response to comment 11-26 above, the HRA is thorough, relies upon current agency guidelines for prescribed methods and factors, and is based upon conservative reasonable worst-case assumptions for all model parameters, and implicitly and explicitly does consider cumulative health risk impacts. The supporting documentation contained in Appendix C does provide a qualified technical reviewer the substantial information needed to independently verify the analytical results.

See also Response to Comments 11-8 through 11-13 for construction emissions. See Response to Comments 11-14 for baseline condition. See Response to Comments 11-8 through 11-20 and 11-31 for operational emissions. See Response to Comments 11-28 for cumulative impacts. See Response to Comments 11-32 for model coefficient options). See Response to Comments 11-33 and 11-34 for methodology.

Response 11-37: The biological assessment of the site was conducted by a qualified biologist (Merkel & Associates, Inc. October 2009). Their assessment was conducted under the direction of Jeffrey G. Harvey, Ph.D., a Senior Environmental Scientist with more than 30 years of experience as an environmental scientist and CEQA practitioner in California. Dr. Harvey reviewed the site conditions in 2009 and 2010, and several times each year from 2012 to present (2016). The proposed project site is a heavily disturbed brownfield site, fenced and graded following demolition of the previous United Concrete Pipe Corporation's industrial uses, which occupied the site from 1936 until the early 1990s. The property is owned by the City of Irwindale, and is regularly maintained, with a secure fenced perimeter. Except for clean up and removal of remnants of the previous industrial structures at the site completed as a part of the hazardous materials investigations (Phase I and II as reported in Chapter 3.8 of the EIR), the site is vacant, undisturbed, and conditions are unchanged since the 2009 assessment was completed, and there is no reason to conduct additional biological assessment work.

The site is lies between Arrow Highway and Live Oak Avenue near the foot of the Santa Fe Dam, and is surrounded by light industrial operations and facilities to its northwest and south, the Dam to the northeast, and intensive industrial uses along Live Oak Avenue south of the project, beyond which lie dense residential areas in the City of Baldwin Park. The site is relatively flat with an abundance of cobble, rock, small boulders, and striations created by periodic vegetation clearing activities and grading. The southern margin of the site is crossed by two LADWP transmission line towers. Two cement slabs are present on the interior of the site, one of which supports an abandoned water storage tank and water pump. In addition, Southern California Edison (SCE) Company holds a 23-foot-wide underground utility easement totaling approximately 0.5 acres

along the entire length of the Proposed Project site frontage on Arrow Highway. As noted in the Merkel report in 2009, and unchanged since that time, the Proposed Project site not located within federally designated Critical Habitat for any listed Threatened or Endangered species.

No special status plant and animal species were identified on the site during the 2009 biological survey, and none are expected to occur based on the lack of potentially suitable habitat. This conclusion is supported today by the fact that site conditions have not changed, and the site has been subjected to regular clearing and vegetation management. No evidence of jurisdictional wetlands or waterways on or adjacent to the site was found during the 2009 biological survey, and no change in drainage patterns or local hydrology has occurred since that time that would allow such features to become established.

Current conditions as observed in 2009 by Merkel and since that time by Dr. Harvey confirm the conclusions in the EIR, and support the conclusion in Chapter 3.4 that the only potential impact to biological resources pertains to the possible construction disturbance of nesting birds in non-native trees around the perimeter of the site. Mitigation measure MM BIO-1 (DEIR page 3.4-18) requiring pre-construction surveys for nesting birds will ensure compliance with the regulatory requirements of the federal Migratory Bird Treaty Act and California Fish and Game Codes §3503, §3503.5, and §3513 regarding Proposed Project grading and construction activities.

Response 11-38: The analysis of potential impacts to cultural resources is presented in Chapter 3.5 of the EIR (pp. 3.5-1 through 3.5-17). The cultural resources assessment was completed by a qualified cultural resources expert (ASM Affiliates, October 2009). Their assessment was conducted under the direction of Jeffrey G. Harvey, Ph.D., a Senior Environmental Scientist with more than 30 years of experience as an environmental scientist and CEQA practitioner in California. Dr. Harvey reviewed the site conditions in 2009 and 2010, and several times each year from 2012 to present (2016). The proposed project site is a heavily disturbed brownfield site, fenced and graded following demolition of the previous United Concrete Pipe Corporation's industrial uses, which occupied the site from 1936 until the early 1990s. The property is owned by the City of Irwindale, and is regularly maintained, with a secure fenced perimeter. Except for clean up and removal of remnants of the previous industrial structures at the site completed as a part of the hazardous materials investigations (Phase I and II as reported in Chapter 3.8 of the EIR), the site is vacant, undisturbed, and conditions are unchanged since the 2009 assessment was completed, and there is no reason to revise the analysis of cultural resources impacts.

The City initiated consultation with the California Native American Heritage Commission (NAHC) in 2008 (with an earlier rendition of the project and CEQA process) and again in 2013 as a part of the current project scoping process. In 2008, the NAHC performed a Sacred Lands File (SLF) search of the Project's "area of potential effect" and the results determined that "*No known Native American Cultural Resources were identified; however, the NAHC SLF is not exhaustive*

and local tribal contacts should be consulted". The NAHC provided a list of five (5) local tribal contacts, all of whom were sent correspondence regarding SB 18 consultation. Correspondence was received from the Gabrieleño Band of Mission Indians requested site monitoring during any excavation or ground disturbances. In 2013, a similar letter was sent certified mail to the NAHC. SB 18 provides a 90-day window for tribal consultation to commence. No response was received from the NAHC, and no further SB18 compliance was required by the City. However, a comment letter on the NOP was received from the Gabrieleno Band of Mission Indians/Kizh Tribe of the Los Angeles Basin, Orange County, and the Channel Islands requesting that a certified Native American Monitor be on-site during all ground disturbances. The City has agreed to include this request within the Mitigation Program. (Refer to **Appendix E Cultural Resources** for all documents referenced herein).

Response 11-39: The analysis of hazards and hazardous materials presented in Chapter 3.8 of the EIR (pp. 3.8-1 through 3.8-32) includes a full disclosure assessment of existing conditions and potential impacts, and the comment is incorrect and provides no basis for the claim that emissions within one quarter mile of a school must be defined as a significant impact. The prescribed mitigation measures are well defined, with requirements for specific and active site management plans that are standard practice in the waste management industry. As stated on page 3.8-28 of the Recirculated Draft EIR, Margaret Heath Elementary School is located approximately 1,370-feet (0.26-miles) south of the eastern tip of the Proposed Project property line. Furthermore, the school's northeastern tip (a grass field) is located approximately 1,330- feet (slightly more than 0.25-miles) south of the edge of the right-hand eastbound lane of Live Oak Avenue.

As stated on page 3.11-13 of the Recirculated Draft EIR, the Proposed Project site layout, building orientation, and ingress and egress locations were specifically modified to direct both construction and operational traffic away from the intersection of Live Oak Avenue and Baldwin Park Boulevard. This was done to ensure that traffic from the Proposed Project is routed away from this intersection to minimize effects on residences south of Live Oak Avenue industrial corridor in the City of Baldwin Park, and the Margaret Heath elementary school. The trucks entering and exiting the facility would be greater than one quarter mile away from the. Margaret Heath Elementary School.

The Hazards assessment determined that the proposed project does not pose any significant or potentially significant impacts. Therefore, no significant impacts need to be reduced or avoided. However, the applicant in cooperation with the City of Irwindale has proactively added mitigation measures in the form of Project Design Features (PDFs) as part of the Proposed Project. The PDFs are intended to ensure that potential effects already found to be less than significant are actively managed and minimized throughout the life of the project.

Response 11-40: The EIR includes a full disclosure assessment of land use issues (Chapter 3.9, pp. 3.9-1 through 3.9-24), including examination of applicable plans and policies and non-applicable plans and policies of the neighboring City, and the analysis in the EIR is correct in its conclusion that the proposed project does not conflict with the neighboring City's General Plan policies. The proposed project site and all roads to be utilized for project traffic are located entirely within the City of Irwindale, and the project is not subject to the City of Baldwin Park's General Plan or policies. In response to concerns raised by the City of Baldwin Park, the site layout, building orientation, and ingress and egress locations for the proposed project were specifically modified to direct both construction and operational traffic away from the intersection of Live Oak Avenue and Baldwin Park Boulevard to ensure that traffic from the Proposed Project is routed to minimize effects on City of Baldwin Park residences. The state-of-the-art MRF/TS facility includes a modern fully enclosed building within which material recovery and recycling operations will be confined, within a site that is completed fenced and surrounded with modern and maintained landscaping.

As shown in the land use map in Figure 3.9-1 and in Exhibit 3.2-12 Site Rendering Aerial View looking South-East of the EIR (reproduced below) the proposed project is very consistent with surrounding land uses in both the City of Irwindale and the City of Baldwin Park. Rather than having potential to cause urban blight, the new land use will represent a major improvement over the appearance and current conditions of land uses that exist within the City of Baldwin Park along the south side of Live Oak Avenue.

Figure 3.9-1, from page 3.9-13 of the Recirculated Draft EIR

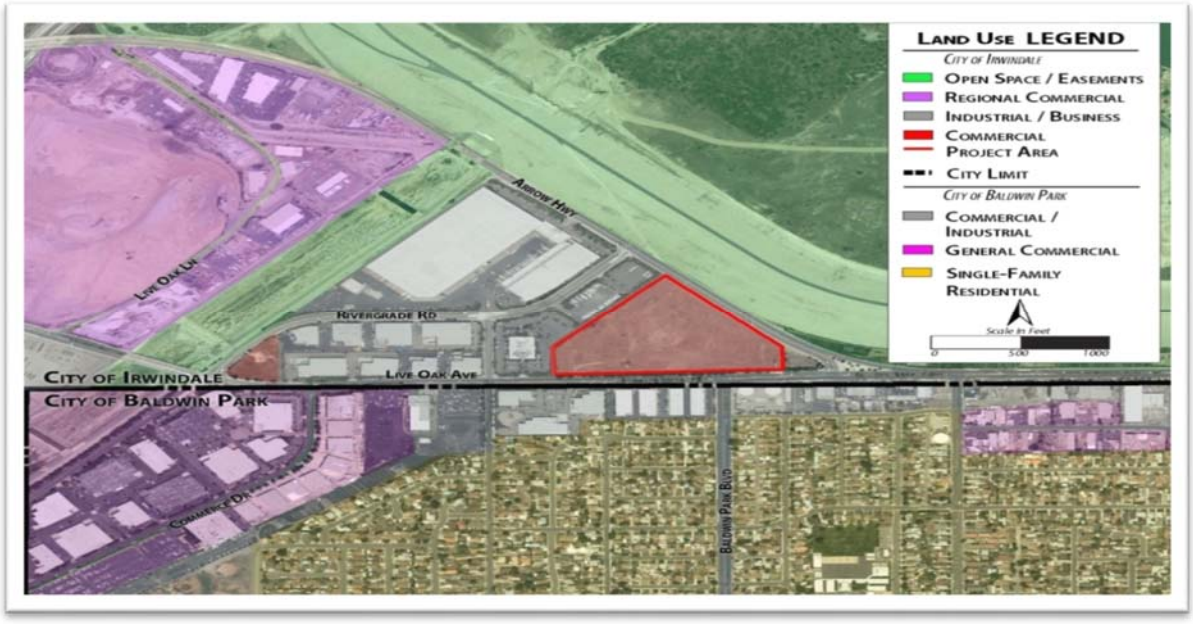


Exhibit 3.2-12 Site Rendering Aerial View looking South-East, from page 3.2-16 of the EIR



Response 11-41: In response to this comment, the Recirculated Draft EIR was revised by adding the following above Source line in Table 3.10-5 on page 3.10-18 of the Recirculated Draft EIR (new text is underlined and strikethrough is used for ~~deleted text~~):

"*Note: At the boundary line between a residential property and a commercial and manufacturing property, the noise level of the quieter zone shall be used.*

(B) Corrections to noise limits. The numerical limits given in the table shall be adjusted by the following corrections, where appropriate (Based on the following noise conditions):

Noise Condition 1: Repetitive impulsive noise, pure tones and sound with cyclically varying amplitude. (Correction = -5 dBA)

Noise Condition 2: Steady whine, screech or hum (Correction = -5 dBA)

Noise Condition 3: Noise occurring more than 5 but less than 15 minutes per hour. (Correction = +2 dBA)

Noise Condition 4: Noise occurring more than 1 but less than 5 minutes per hour. (Correction = +5 dBA)

Noise Condition 5: Noise occurring less than 1 minute per hour. (Correction = +7 dBA)

Source: Baldwin Park Code of Ordinances, Section 130.30, http://www.amlegal.com/nxt/gateway.dll/California/baldwin/titlexiiigeneraloffenses/chapter130generaloffenses?f=templates$fn=altmain-nf.htm$q=[field folio-destination-name:'130.30']$x=Advanced#JD_130.30; Accessed 10/31/13"

The correction factors would not affect the conclusions of the Recirculated Draft EIR. None of the conditions to reduce the standard (negative number adjustments) are likely to occur. If anything, the noise standard would be increased (+2 dBA to +7 dBA allowing for more noise from the facility) because the noise activities would only occur for part of an hour.

Response 11-42: Table 3.10-4 on page 3.10-18 of the Recirculated Draft EIR does include the appropriate planning standards. Table 3.10-5 on page 3.10-18 of the Recirculated Draft EIR represents the noise ordinance standards or "noise control" limits that are enforced in Baldwin Park.

Response 11-43: The commenter is correct that the paver could generate 83 dBA at 100 feet from the project site during the time the paving is at the property line. Overall, however, noise from finishing (generally building the structures) would be no greater than 83 dBA at the property boundary. Mitigation measures MM N-1 through MM N-6 have been formulated to reduce construction noise impacts.

Response 11-44: Construction would be conducted during the daytime hours and the construction trucks would have a minimal effect on existing traffic noise levels as they would represent a very small percentage of the overall existing traffic.

Response 11-45: As set forth in the EIR, (page 3.10-27), the estimated noise level was developed based upon the "L8" value (noise level duration of 5 minutes in any hour) in Table 3.10-8 on page 3.10-25 of the Recirculated Draft EIR. Table 3.10-8 is based on the noise study by Gordon Bricken & Associates (2003). It is a conservative estimate of the Leq, because the standard Leq is equivalent to the L10 value (noise level duration of 6 minutes in any hour), and the L8 value is by definition louder than the L10.

There would be no incoming or outgoing truck trips from 10 p.m. to 5 a.m. so truck noise is not a factor for those hours. All operations during those nighttime hours would be conducted within the fully enclosed MRF buildings. A ten decibel reduction in noise has the effect of reducing the noise by half, so with no outdoor truck movements during these hours, outdoor noise levels during these hours are reduced by 50 percent or more from daytime levels.

Response 11-46: The commenter refers to Section 9.28.039 of the Irwindale Municipal Code, which does not exist.

The commenter is correct that the Noise Ordinance does not specify the limits as hourly average noise levels, but it is clear from the decibel level limits selected that the ambient base noise levels are meant to be sound levels averaged over an extended time period and not a short-term maximum noise level (Lmax). Section 9.28.020 of the Code defines "Ambient base noise level"

to mean reasonable and representative ambient noise levels in various land use categories in the City and at various times as established by the planning commission. Thus an average hour noise level for daytime and nighttime was chosen as the best comparison to the limits presented in Section 9.28.030 of the Code (found in Table 3.10-3 on page 3.10-16) as presented in Table 3.10-9 on page 3.10-27 of the Recirculated Draft EIR. The shorter-term noise levels in Table 3.10-8 on page 3.10-25 of the Recirculated Draft EIR are the basis of hourly average noise levels presented in Table 3.10-9 of the Recirculated Draft EIR, and thus are not underestimating the noise levels from the facility.

Response 11-47: The CNEL standard (a 24-hours standard) is similar to the long-term L(12) twelve-hour standard. The following text is revised in the paragraph that begins at the top of page 3.10-27 of the Recirculated Draft EIR (new text is underlined and strikethrough is used for ~~deleted text~~:

"The noise levels from the project at the nearest ~~for~~ properties in Baldwin Park are not expected to exceed Baldwin Parks adopted standards. Exterior noise levels should not exceed the 65 CNEL noise standard ~~L(12) limit of 65~~ for Baldwin Park residential. Noise from the project ~~It~~ should be <60 CNEL at the nearest Baldwin Park residences south of the project site (based on the results shown in Table 3.10-9; the distance to the residences; and the shielding by the existing industrial buildings between the project site and the Baldwin Park residences) and any noise from the project would be masked by existing and future traffic noise from Live Oak Avenue, which would not be attributable to the project. Additionally, traffic related operation noises are not likely to affect Baldwin Park since most of the traffic is restricted from going south through Baldwin Park. As identified earlier in this Noise Chapter, the nearest residents in Baldwin Park are situated approximately 325 feet and further south and southeast of the property line."

Response 11-48: The commenter is confusing average noise levels (Leq's) with maximum noise levels (Lmax's). In typical environmental settings with traffic noise generating the maximum noise levels, the average noise levels (Leq) are typically 10-30 decibels less than the maximum noise levels (Lmax). As indicated on page 3.10-33 of the Recirculated Draft EIR "Maximum noise levels due to construction of the Proposed Project would be about 70 dBA at the trail". The existing 55 – 58 dBA noise level mentioned by the commenter is from Table 3.10-2 on page 3.10-6 of the Recirculated Draft EIR and represents 5 minute Leq's or "average noise levels". A review of the raw data from the noise measurements found that the maximum existing noise levels were 67.9 and 71.2 Lmax, dBA on the Santa Fe Dam Trail, with the noise source from vehicle traffic along the Arrow Highway. Therefore, the maximum construction noise level of 70 dBA from the project would not change the maximum noise level on the trail, and the EIR conclusion that this would not be a significant impact is correct.

It should be noted that the Recirculated Draft EIR includes Mitigation measures MM N-1 through MM N-6 have been recommended to reduce construction noise impacts. These

mitigation measures are included to reduce the Significant/Unavoidable Impact from Threshold N-5 (substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project). Mitigation measures MM N-1 through MM N-6 would also reduce construction noise impacts at sensitive receptor locations such as on the Santa Fe Dam Trail and the residences in the City of Baldwin Park south of the project site.

Response 11-49: See Response 11-48, this comment is similar. Again, the commenter is confusing average noise levels (Leq's) with maximum noise levels (Lmax's). In typical environmental settings with traffic noise generating the maximum noise levels, the average noise levels (Leq) are typically 10-30 decibels less than the maximum noise levels (Lmax). The noise levels at Noise Monitoring Location 2 as reported in Table 3.10-2 on page 3.10-6 of the Recirculated Draft EIR are Leq average noise levels of 55to 65 dBA. The commenter then compared them to predicted "maximum noise levels" from project construction, which would be 73 dBA (as reported on page 3.10-33).

A review of Table 3.10-2 shows (in the far right column labeled "Noise Sources and Observations – Noise Levels dBA") that the existing traffic was observed to generate noise levels as high as 72 dBA, Lmax. Furthermore, the raw noise data for the three 5-minute periods at Noise Monitoring Location 2 indicated that the Lmax was greater than 73 for each of the 5-minute periods. The measured existing Lmax levels were 75.8, 77.4 and 77.0 dBA, Lmax for the three measurement periods. Therefore, the maximum construction noise level of 73 dBA from the project would not change the maximum noise level at this location and the EIR conclusion that this would not be a significant impact is correct.

Response 11-50: The commenter submitted new comments on this topic on the Recirculated Draft EIR. Please see Responses to Comments 25-24 and 25-25.

Response 11-51: The commenter submitted new comments on this topic on the Recirculated Draft EIR. Please see Response to Comment 25-26.

Response 11-52: The commenter submitted new comments on this topic on the Recirculated Draft EIR. Please see Responses to Comments 25-27 through 25-31.

The City of Irwindale appreciates the City of Baldwin Park's participation in the public review process.

Comment Letter 12

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May 16, 2014

RE: DRAFT PROGRAM ENVIRONMENTAL IMPACT REPORT FOR IRWINDALE MATERIALS RECOVERY FACILITY AND TRANSFER STATION PROJECT, STATE CLEARINGHOUSE #2013051029

Dear Ms. Kelly,

On behalf of the Los Angeles Alliance for a New Economy (LAANE), we submit comments on the Material Recovery Facility and Transfer Station Project ("MRF") proposed in Irwindale. While LAANE strongly supports the City of Irwindale's commitment to "keeping our local communities clean and supporting programs to reuse and recycle to conserve landfill space," we are deeply concerned about this project. Athens Services (aka, Arakelian Enterprises, Inc.), the operator of this proposed MRF, has a track record of significant negative impacts throughout the region.

LAANE is a tax-exempt, non-profit, organization that has spent over 20 years working with communities across Los Angeles County to develop good jobs, thriving communities and a healthy environment for everyone. Nearly four years ago, LAANE launched the Don't Waste LA Coalition, made up of over 35 organizations and small businesses, to establish region-wide standards in the waste and recycling industry. Toward that end, we've engaged in deep industry and market research, and concluded that several companies merit watchful consideration.

Given this checkered past, it is imperative that the City of Irwindale be scrupulous in disclosing the true impacts of this MRF. The City should not only rely on statements by this waste hauler about its corporate responsibility or the benefits of this type of facility. In fact, the Draft Environmental Impact Report ("DEIR") indicates that this will be what is commonly referred to as a "dirty MRF," which falls short of the most efficient, ecologically-sound, and "state-of-the-art" facility that could be built. . In fact, dirty MRFs, which Athens Services promotes heavily throughout the region, result in high levels of contamination of recyclable materials, rendering them not usable.

This type of contamination is not good for Irwindale, and certainly not in the spirit of what is required by Assembly Bill 341, Senate Bill 1106, and Assembly Bill 939. The goal is to actually achieve diversion from landfills, not to contaminate recyclable materials.

As described below, this DEIR is inadequate, failing to carry out the California Environmental Quality Act's ("CEQA") mandates. It does not accurately identify or analyze the significant environmental impacts that would result from the implementation of the considerable Project, and it fails to provide sufficient mitigation for such impacts as it does identify. Moreover, it fails to consider alternatives which would effectively protect the environment while also providing good, well-paying, sustainable jobs for the region's workforce.

I. The Proposed Project Will Have an Indelible Impact On-Adjacent Communities and the Region.

The health impacts and regional air quality impacts from heavy truck activities are well documented. Of all listed toxic air contaminants ("TACs") identified by the California Air Resources Board ("CARB"), diesel particulate matter ("DPM") is known to present the greatest health risks to Californians.[1] Dozens of studies have shown adverse impacts from DPM and NO_x (nitrogen oxides), including respiratory disease, cardiovascular mortality, cancer, and reproductive effects as well as an increase in regional smog and water contamination. CARB has determined that diesel exhaust is responsible for over 70% of the risk from breathing our air statewide and in the South Coast Air Basin ("SCAB").[2] Here, there is a proposal to increase significantly the truck traffic in an area already hammered by harmful pollution such as smog and soot. In addition, the City is proposing a fueling station to continue to build out "diesel" infrastructure. Moreover, the EIR includes a lackluster commitment to advance cleaner truck technologies beyond what is currently required under South Coast Air Quality Management District Rule 1193. Given the location of this proposed project in the center of polluted air in the region, the City cannot take lightly a decision to permit this magnet for polluting trucks. 1

II. Athens Has a History of Community Impacts.

Courts allow a review of prior shortcomings in analyzing the adequacy of mitigation measures in EIRs. The Supreme Court has stated that "[b]ecause an EIR cannot be meaningfully considered in a vacuum devoid of reality, a project proponent's prior environmental record is properly a subject of close consideration in determining the sufficiency of the proponent's promises in an EIR."[3] Athens Services has not proven to be a good neighbor to many communities throughout the region. 2

For example, Athens Services' Materials Recovery Facility, located at 14048 Valley Blvd. in the City of Industry, has been the source of controversy for over a decade. According to news reports, when Athens applied in 2003 for a permit to increase capacity from 1,920 to 8,500 tons/day, residents protested.[4] It was also reported that, between July and November 2003 alone, the South Coast Air Quality Management District ("SCAQMD") had received 44 odor complaints from nearby residents.[5] Athens received a permit in 2005 from the County Department of Regional Planning[6] and one from the Local Enforcement Agency to increase their capacity based on the installation of emission and odor-control systems.[7] The SCAQMD and Athens also entered into a settlement agreement in 2005 to resolve enforcement issues. This

[1] CARB, *Emissions Reduction Plan for Ports and Goods Movement in California*, 7 (2006) (hereinafter "ERP").
[2] ERP, 7.
[3] *Laurel Heights Improvement Assoc. of San Francisco v. Regents of the University of California*, 47 Cal.3d 376, 420 (Cal. 1988).
[4] San Gabriel Valley Tribune, November 28, 2003, *Waste Firm's Expansion Challenged,* Rodney Tanaka.
[5] Ibid.
[6] Conditional Use Permit Case No. 97-060-(1).
[7] Referenced in the Settlement agreement between SCAQMD and Arakelian Enterprises/Athens Services signed on January 27, 2009, civil case No. KC53685.

agreement required the facility to be enclosed and for air filtration systems to be installed prior to an increase in capacity.[8] According to the Settlement Agreement, Athens Services failed to properly install or follow the conditions, was aware of the problems, but increased their capacity regardless[9] leading to an eventual civil suit filed in 2008 by the SCAQMD.[10] The lawsuit was eventually settled in 2009 with a civil penalty in the amount of $1,300,000 and required to make $750,000 worth of capital improvements to control odor and emissions.[11] 2 con't

Additionally, Athens Services' facility in the Sun Valley neighborhood of Los Angeles, located at 11121 Pendleton Street, met community resistance while seeking approvals to expand processing capacity in 2012 and prior. Community representatives from numerous entities near the facility spoke out against the project, such as the Sun Valley Neighborhood Council, Foothill Trails District Neighborhood Council, Shadow Hills Property Owners Association, Sun Valley Chamber, and environmental organization Pacoima Beautiful. A representative of Los Angeles City Council District 2, which represented the area surrounding the facility, also voiced concerns about the proposed expanded use.

In another example taking place in May of 2005, the California Department of Toxic Substance Control (DTSC) and Athens Disposal Company, Inc. enter into a Consent Order to settle alleged violations. The DTSC had alleged that Athens violated the California Code of Regulations in that they transported hazardous waste without a valid registration issued by the Department, stored it in excess of the time allowed by the Department, failed to acknowledge the acceptance of waste in the manifests and failed to deliver the waste to the designated facility listed on the manifest. Athens agreed to pay $10,000 to settle the allegations without admitting guilt.[12]

This record of impacts to local communities raises significant red flags for those mitigation measures that are not truly enforceable and do not require strict timelines. CEQA is clear that "[m]itigation measures must be fully enforceable through permit conditions, agreements, or other legally-binding agreements."[13] This is particularly important for this proposed facility because of its many sensitive sites in close proximity.[14] In the present case, it is imperative that the EIR do more to mitigate the significant air quality impacts.

III. The DEIR's Project Description is Inadequate.

3

The DEIR's project description fails to address numerous Project features, including the mixture of wastes. This omission skews the DEIR's analysis of impacts and, thus, undercuts the validity of the full document under CEQA. Without a complete and accurate project description, an agency and the public cannot be assured that all of a project's environmental impacts have been revealed and mitigated.

The judiciary has determined that "[a]n accurate, stable and finite project description is the sine qua non of an informative and legally sufficient EIR."[15] A complete project description is indispensable because "[a] curtailed or distorted project description may stultify the objectives of the reporting process."[16]

[8] Ibid.

[9] Ibid.

[10] Case number KC53685 filed in Los Angeles Superior Court, Pomona South Courthouse East District, August 21, 2008, *People of the State of CA vs Athens Disposal.*

[11] Settlement agreement between SCAQMD and Arakelian Enterprises/Athens Services signed on January 27, 2009, civil case No. KC53685.

[12] State of California Environmental Protection Agency, Department of Toxic Substance Control, Docket HWCA 2007 1351, effective date May 25, 2007. In the Matter of: Athens Disposal Company, Inc. 15045 E. Salt Lake Ave. City of Industry, CA 91746 CAD 982034688.

[13] CEQA Guidelines § 15126.5(a)(2).

[14] DEIR, at 3.3-20.

[15] *County of Inyo v. City of Los Angeles* (1977) 71 Cal. App. 3d 185 192-93.

[16] *Id.* at 199; *see also San Joaquin Raptor/Wildlife Center v. Stanislaus County*, 27 Cal.App.4th 713, 730 (1994) ("An accurate project description is necessary for an intelligent evaluation of the potential environmental effects of a proposed activity.")

The DEIR's description of the proposed Project fails to meet this mandate. In particular, the Project description does not provide any specificity regarding how different material streams (such as green waste, Construction and Demolition waste, recyclables) would be processed or if the streams would all be mixed at the facility. Moreover, much of the analysis assumes that the waste processed at this facility will be redirected from other facilities in the region. Yet, there is no real commitment or description of actual rerouting of waste from other facilities.[17] The CEQA Guidelines define a project as "the whole of an action, which has potential for resulting in a physical change in the environment."[18] In order for the public to have an opportunity to meaningfully comment on these impacts, the revised DEIR must disclose more detail regarding whether this redirection of materials from other facilities in the region will be simply voluntary, or actually required as a condition of approval. Absent this information, the public cannot meaningful comment on the DEIR. 3 con't

IV. The DEIR Does Not Adequately Discuss Alternatives to the Proposed Project.

The analysis of alternatives to the proposed project lies at "[t]he core of an EIR."[19] In this analysis, the EIR must consider a reasonable range of alternatives that would avoid or substantially lessen this impact while feasibly attaining most of the Project's basic objectives.[20] If the EIR refuses to consider a reasonable range of alternatives or fails to support its analysis with substantial evidence, the purposes of CEQA are subverted and the EIR is legally inadequate.[21] If a feasible alternative exists that will meet the project's objectives while reducing or avoiding its significant environmental impacts, the project may not be approved.[22] 4

An adequate alternatives analysis is a crucial component of complying with CEQA. The analysis of the alternatives throughout the document fails in this respect. As articulated in detail above, the incorrect project description inhibits an accurate assessment of the alternatives to this expansion project by artificially limiting the number of alternatives that could fulfill this objective.

While LAANE appreciates the examination of different sites, the DEIR must also examine different types of facilities, particularly in order to meet Irwindale's goals of increased diversion and compliance with State goals and mandates. In particular, the EIR should analyze a source-separated Materials Recovery Facility that could process comingled recyclables, aka a "clean MRF." In the DEIR, the City of Irwindale stated as one of its criteria/objectives that "Assembly Bill 341 [2011] sets a 75% recycling goal for California by 2020; therefore, the City of Irwindale seeks to achieve and surpass waste reduction and diversion goals and mandates, by providing additional processing capacity to increase diversion of recyclable commodities from the mixed municipal waste stream, thereby reducing the consumption of landfill capacity and prolonging the operational period of the region's current permitted landfill capacity."[23] It will be difficult to accomplish this objective relying on the proposed project's mixed waste processing system.

The City of Irwindale's diversion rate in 2011 was a mere 13 percent – far short of CalRecycle's 50 percent diversion mandate, much less the 75 percent recycling goal of AB 341. Irwindale's exclusive franchise hauler, Athens Services, relies on a dirty MRF model of mixed municipal waste processing, which has resulted in low diversion rates like this one, particularly when compared with "clean MRF" systems utilizing source-separated or "three bin" collection in other cities. Recycling experts have consistently concluded that mixed waste processing fails to achieve high levels of

[17] *See generally* DEIR, at 3.3-28.
[18] CEQA Guidelines § 15378.
[19] *Citizens of Goleta Valley II*, 52 Cal. 3d at 564; *see also* Pub. Res. Code § 21002.1(a) ("The purpose of an environmental impact report is . . . . to identify alternatives to the project . . . .").
[20] *See* § 21100(b)(4); CEQA Guidelines § 15126.6(a).
[21] *San Joaquin Raptor*, 27 Cal. App. 4th at 735-38; *Kings County Farm Bureau*, 221 Cal. App. 3d at 736-37.
[22] Pub. Res. Code § 21002.
[23] DEIR, at ES-3.

recycling. The California Department of Resources Recycling and Recovery ("CalRecycle") found that on average, only 19 percent of recyclable materials are recovered in a dirty MRF – meaning 81 percent of what's sent to dirty MRFs ends up in landfills.[24] A City of Toronto study found closer to 90 or 95 percent of materials processed by dirty MRFs ending up in landfills.[25] A study published in I*ssues in Environmental Science and Technology* also estimates only 10-30 percent of waste entering a dirty MRF can be recovered as commodity grade recyclables.[26] Some cities that have tried to employ the dirty MRFing model, have since conceded that mixed waste processing cannot successfully achieve the state-mandated 50 percent solid waste diversion. In a Cerritos City Council meeting, environmental service coordinator Mike O'Grady stated, "We made a commitment to mixed waste processing and that didn't work…all we can do is move forward and commit ourselves to source separation."[27] With such low levels of recycling captured, the bulk of materials processed through dirty MRFs are sent to landfills, contributing negative environmental impacts. 4 con't

In contrast, cities that rely on source-separated collection and clean MRFs have some of the highest known diversion rates. San Francisco, which uses this model, has the highest rate of recycling in the United States, at 80 percent of its overall waste stream. In 2010, the City of Los Angeles' single-family recycling levels reached 60 percent of all waste produced – and with the City's recently adopted, three-bin based Zero Waste LA franchise system, Los Angeles is on track to a 90 percent diversion rate by 2025.[28] While contamination rates in dirty MRFs are often near 95 percent, many of the City of Los Angeles's contracted processors of "blue bin" recyclables have a contamination rate of zero.[29] The overall contamination rate of all LA-certified blue bin processing facilities is less than 14 percent.

In order for the City of Irwindale to reach its objectives to increase diversion, meet statewide goals and mandates, and reduce dependence on landfills, the DEIR must analyze different types of facilities that could best achieve its objectives.

V. The Air Quality Mitigation is Insufficient.

The DEIR is deficient for failure to require all feasible mitigation. Perhaps the starkest example is the DEIR's failure to require additional mitigation beyond what is required by South Coast Air Quality Management District ("SCAQMD") rules. The EIR, at 3.3-37, concedes that trucks required under this rule can be much cleaner. Yet, it argues that requiring any more of trucks than what is required under SCAQMD Rule 1193 is infeasible. Simply complying with the law is not mitigation, it is just being a law abiding company. CEQA requires more through its mandate to adopt all feasible mitigation for significant environmental impacts. 5

For example, the EIR cannot flatly reject mitigation simply because it would be expensive to replace an entire fleet of trucks.[30] Even if *all* the trucks could not be replaced with cleaner trucks at the facility, the EIR fails to explain why commitment to a 10, 20, 30 or 40 percent increase in commitment to cleaner trucks is infeasible. This would be especially important given the significant air quality impacts from this project. Also, the DEIR fails to articulate why all

[24] R.W. Beck, Inc. Targeted Statewide Waste Characterization Study: Characterization and Quantification of Residuals from Materials Recovery Facilities. California Integrated Waste Management Board, June 2006. Accessed from www.ciwmb.ca.gov/Publications/default.asp?pubid=1182.
[25] City of Toronto website. Accessed from http://www.toronto.ca/garbage/mwp/pdf/work_package-1_and_2.pdf.
[26] Strange, Kit. "Overview of Waste Management Options: Their Efficacy and Acceptability." *Issues in Environmental Science and Technology*, No. 18. The Royal Society of Chemistry, 2002.
[27] Meeting transcript of the California Integrated Waste Management Board (CalRecycle) and the City of Cerritos. January 23, 2008. Accessed from http://www.calrecycle.ca.gov/Archive/IWMBMtgDocs/mtgdocs/2008/01/00023122.pdf.
[28] Bureau of Sanitation. *City of Los Angeles Solid Waste Integrated Resources Plan – A Zero Waste Master Plan.* October 2013, p. 36.
[29] Bureau of Sanitation, *Draft Environmental Impact Report: City of Los Angeles Solid Waste Integrated Resources Plan*. October 2013. Appendix C.
[30] DEIR, at 3.3-37.

outbound transfer trucks will be "diesel fueled."[31] These appear to be trucks that could easily be replaced with cleaner units given that they will operate at the facility every day. In fact, given the great need to reduce ozone pollution, Athens Services should commit to help demonstrate trucks that are zero tailpipe emission vehicles. 5 con't

VI. The Baseline is Faulty.

The baseline used for the air quality analysis is unsupported. The EIR assumes the emissions from waste that is currently traveling to other facilities.[32] The EIR highlights that there could be "unexpected changes in applicants operations,"[33] yet it assumes that a significant amount of current emissions relating to other facilities are part of the baseline. Besides, CEQA makes clear that the baseline should be "a description of the physical environmental conditions in the vicinity of the project, as they exist at the time the notice of preparation is published."[34] Here, the project applicant is seeking to add emissions into the baseline that are not in the "vicinity of the project." The baseline in this case should clearly be zero for emissions since there is nothing happening at this proposed facility. This type of baseline manipulation simply serves to understate the impacts of this project, which is not productive for the public and decision-makers to understand the true impacts from this project. The EIR should be recirculated using this different baseline. 6

We appreciate your consideration of these comments, and we look forward to reviewing the recirculated draft of the DEIR should the City continue to decide it wants to proceed with this inadequate proposal. Please do not hesitate to contact us if you have any questions about these comments.

Sincerely,

Lauren Ahkiam
Senior Research and Policy Analyst
Los Angeles Alliance for a New Economy

Adriano Martinez
Staff Attorney
Earthjustice

[31] DEIR, at 3.3-32.
[32] DEIR, at 3.3-28.
[33] *Id.*
[34] CEQA Guidelines, at 15125(a).

Responses to Comment Letter 12

Response 12-1: The EIR contains a comprehensive analysis of potential air quality impacts and associated health risks presented in Chapter 3.3 Air Quality, Greenhouse Gas, Odor and Health Risk Assessment (pp. 3.3-1 through 73; with supporting technical details in Appendix C). A dispersion modeling analysis (THRESHOLD AQ-3 on page 3.3-47 of the Recirculated Draft EIR and THRESHOLD AQ-4 on page 3.3-52 of the Recirculated Draft EIR) of the local pollutant concentrations as a result of construction activities and haul truck and onsite equipment operations found that with inclusion of MM AQ-1 through AQ-18 the project impacts would be less than the SCAQMD Significance Thresholds for all pollutants including NOx and $PM_{2.5}$. The SCAQMD Significance Thresholds for local pollutant concentrations are health-based and tied to the California Ambient Air Quality Standards.

See also Response to Comment 11-28 related to existing health risks in Irwindale, and Response to Comment 11-33 related to project-related incremental health impacts.

THRESHOLD AQ-2 acknowledges that the unmitigated ROG and NOx operational emissions are significant. The Project proposes MM AQ-12 through 18 to reduce the ROG and NOx emissions, however, even with mitigation these emissions remain significant and unavoidable. See also Response to Comment 13-4 related to proposed mitigation measures.

SCAQMD Rule 1193 (Clean On-Road Residential and Commercial Refuse Collection Vehicles) requires public and private solid waste collection fleet operators to acquire alternative-fuel solid waste collection, roll-off, or transfer trucks when procuring or leasing these vehicles for use by or for governmental agencies. Approximately 68 percent of the trucks operated by the Applicant are fueled by CNG in 2014. As new trucks are procured or replaced, they must comply with the requirements of Rule 1193. See also Response to Comment 13-21 related to South Coast Air Quality Management District Rule 1193 and alternatively fueled trucks.

Response 12-2: This comment does not raise a significant environmental issue, nor does the comment speak to the adequacy of the EIR. The City will take into consideration all comment letters during the project review process. No further response is warranted.

Response 12-3: This comment is incorrect. The Project Description (presented in Chapter 2.0 (pp. 2.0-1 through 2.0-40) is comprehensive, and does include a detailed breakdown of the mixture of wastes for which the Project capacity is designed. As stated in the EIR (page 2.0-8):
"The MRF/TS facility would be designed to receive, process and transfer up to a maximum of 6,000 tons per day (tpd), based upon estimated averages of 3,000 tpd of municipal solid waste, 1,000 tpd of green waste, 1,000 tpd of construction & demolition materials, and 1,000 tpd of self-haul waste. Actual processing volume of each type of material per day could exceed these

estimated averages and will depend on market factors and seasonal variations, but in no event will exceed 6,000 tpd in the aggregate."

Section 2.3 of the Project Description (pp. 2.0-6 through 2.0-17) details all facility features and explains that the facility will have the ability to process mixed waste processing, construction and demolition, green waste, source separated recyclables, transfer and self-haul recovery. The various materials will be delivered, sorted and recovered in specific sections within the interior of the facility building as shown in detail in Exhibit 2.3 Site Plan (page 2.0-25).

With regard to the comments about "re-directing" and "re-routing" of wastes, the proposed facility will not generate any waste, or cause any waste to be generated in the region, and all materials that are contracted to be processed at this facility would otherwise be processed at another such facility. Waste management and recycling in the State of California is a competitive market activity, and the proposed facility in the City of Irwindale will be one of many facilities competing to serve local and regional communities in pursuit of attainment of the State's 75 percent waste reduction goal.

Response 12-4: In response to this comment, the Recirculated Draft EIR includes analysis of an additional alternative of a facility that would only receive loads of materials that are source-separated, referred to as a "source-separated" processing facility; (see Recirculated Draft EIR Section 5.7 Source-Separated MRF Alternative. See also Response to Comment 29-2.

Response 12-5: See Response to Comment 13-4 related to modifications to the mitigation measures and the efficiency of the emission reductions associated with combustion and fugitive emissions from construction and operations.

Response 12-6: See Response to Comment 13-5 that describes the updated approach to determine the baseline conditions.

The City of Irwindale appreciates the organization's participation in the public review process.

REMY | MOOSE | MANLEY
LLP

Andrea K. Leisy
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May 16, 2014

Comment Letter 13

VIA ELECTRONIC & REGULAR MAIL

Paula Kelly
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City of Irwindale Planning Department
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Re: Comments on the Irwindale Materials Recovery Facility and Transfer Station (MRF/TS) Project Draft Environmental Impact Report (SCH No. 2013051029)

Dear Ms. Kelly:

We submit this letter on behalf of our clients: (i) Azusa Land Reclamation, Inc. (ALRI) (ALRI); and (ii) USA Waste of California, Inc. (doing business as (dba) Nu-way Arrow Reclamation, Inc.) (collectively referred to as "Waste"), regarding the adequacy of the above referenced Draft Environmental Impact Report (DEIR) prepared by the City of Irwindale (City) pursuant to the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.; Cal. Code Regs., tit. 14, § 15000 et seq. (CEQA Guidelines)) for the proposed Irwindale Materials Recovery Facility and Transfer Station Project (Project).[1]

Pursuant to the July 2013 Settlement Agreement entered into between the City, ALRI, and the City of Azusa, our comments are focused on the adequacy of the DEIR's analysis of air quality and traffic impacts, and alternatives. We have also provided comments on the project description to the extent inconsistencies in that section taint the air quality, traffic, and alternatives analysis. The DEIR suffers numerous deficiencies, including inadequate impacts analyses and mitigation measures that preclude meaningful discussion and mitigation of the full scope of the foreseeable significant adverse impacts of the Project. As explained herein, the DEIR's conclusions, particularly with respect to

[1]/ Athens Services proposes to construct and operate a materials recovery facility and transfer station (MRF/TS) with a fueling facility/convenience store on a 17.22 acre site at 2200 Arrow Highway. The Project would enable Athens to receive, process, and transfer up to 6, 000 tons per day (tpd) based on estimated averages of 3,000 tpd of municipal solid waste (msw), 1,000 tpd of green waste, 1,000 tpd of construction and demolition (C&D) materials, and 1,000 tpd of self-haul waste.

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air quality and traffic, are not supported by substantial evidence. In light of these deficiencies, the City must revise and recirculate the DEIR.

I. Inadequate Notice of Completion/Availability of DEIR

1

As a preliminary matter, the Notice of Availability provided by the City does not meet the requirements of CEQA Guidelines sections 15085 and 15087, which require a notice of completion of a draft EIR to include: a brief description of the project and location (by street address and cross street). (CEQA Guidelines, § 15085, subd. (b)(1)(2).) The notice must also include a list of the significant environmental effects anticipated as a result of the project and be posted with the County Clerk for not less than 30 days. (CEQA Guidelines, § 15087, subds. (c)(d).) Irwindale's Notice of Availability omits this information, precluding a meaningful understanding by the public of what the proposed Project involves, its potential effects and where it is proposed to be located.

II. Statement of Interest

2

ALRI, in conjunction with its parent company USA Waste of California, Inc., owns and operates a landfill disposal facility located at 1211 Gladstone Street within the southern part of the City of Azusa. Since 2013, ALRI has also operated a MRF/TS located to the west of the landfill, northeast of the intersection of Irwindale Avenue and Gladstone Street. Nu-way Arrow Reclamation, Inc. is located within the City of Irwindale. USA Waste of California also has offices and a hauling yard nearby within the City of Baldwin Park. The truck trips frequenting the existing landfill and MRF/TS, as well as Waste's operations in Irwindale and Baldwin Park, share many of the same roadways and intersections as would trucks under the proposed Project.

Waste's employees live, work and recreate within the cities of Azusa, Irwindale and the surrounding area. Our clients' employees will therefore be directly affected by the Project's environmental impacts, particularly air quality, traffic and circulation. Therefore, Waste has a direct and beneficial interest in ensuring that the City fully consider and mitigate the significant adverse impacts of the Project to the extent feasible.

III. The Project Description is Incomplete and Inconsistent.

3

Although the project description states the Project would be limited to receiving, processing, and transferring up to 6,000 tons per day (based on estimated averages of 3,000 tpd of municipal solid waste, 1,000 tpd of green waste, 1,000 tpd of construction and demolition materials, and 1,000 tpd of self-haul waste) (see DEIR, p. 2.0-9), the DEIR also states that green waste and construction and demolition (C&D) waste processing would operate, individually, at 80 tons/hour for 16 hours per day. (DEIR, pp. 2.0-12.) This would amount to 1,280 tpd of green waste and C&D waste respectively, more than the estimated 1,000 tpd for each. Thus, the Project could accept 560 more tpd than disclosed and analyzed in the DEIR (assuming the other estimated quantities remain the same).

The DEIR also appears inconsistent in identifying how much msw would be transported to the Mid Valley landfill in Rialto. The project description states that approximately 80 percent of waste will be transferred to Mid Valley (DEIR, p. 2.0-12), but Chapter 3.3 (Air Quality Greenhouse Gas, Odor, and Health Risk Assessment) states that 85 percent will be transferred. (DEIR, p. 3.3-31.) It is not clear, therefore, how much msw and truck trips were assumed, and what the additional vehicle miles traveled (vmt) would be under an 85 percent scenario. The difference needs to be reconciled and the air quality analysis revised as needed. 3 cont.

CEQA requires an accurate, stable and finite project description to ensure a consistent impact analysis and an intelligent evaluation of the potential environmental effects of the whole of a proposed project. (See *San Joaquin Raptor Rescue Center v. County Of Merced* (2007) 149 Cal.App.4th 645, 655 [an accurate, stable and finite project description is the sine qua non of an informative and legally sufficient EIR]; *County of Inyo v. City of Los Angeles* (1977) 71 Cal.App.3d 185, 199.) Moreover, "[a] curtailed or distorted project description may stultify the objectives of the reporting process." (*County of Inyo, supra,* 71 Cal.App.3d at p. 192.) The project description within the DEIR is lacking.

IV. The DEIR Fails to Adequately Identify and Mitigate Significant Adverse Air Quality, Greenhouse Gas, Odor, and Health Risk Impacts that Would Result from the Project if Approved.

As discussed below, the DEIR omits critical information about the Project and its air quality and greenhouse gas (GHG) impacts, and fails to provide adequate mitigation measures to avoid or substantially lessen the significance of the impacts. 4

A. The DEIR Fails to Include Critical Information About the Existing Setting.

The air quality chapter fails to include critical information about the existing setting. CEQA requires that an EIR include a description of a project's environmental setting or "baseline." (CEQA Guidelines, § 15125, subd. (a).) The baseline is the set of environmental conditions against which the decision makers and the public can compare a project's anticipated environmental impacts. (*Communities For A Better Environment v. South Coast Air Quality Management Dist.* (2010) 48 Cal.4th 310, 321.) 5

For example, DEIR page 3.3-8 states that the California Air Resources Board (CARB) has designated areas as attainment or non-attainment with respect to the state ambient air quality standards. The DEIR states that Los Angeles County is in attainment for federal and State sulfur dioxide (SO_2) standards. (DEIR, p. 3.3-5.) The DEIR also states that with regard to the National Ambient Air Quality Standards (NAAQS), the County is currently in "severe" non-attainment of the 8-hour O_3 NAAQS, non-attainment of the NAAQS for particulate matter less than 2.5 micrometers ($PM_{2.5}$), and maintenance for carbon monoxide (CO). (DEIR, p. 3.3-8.) The DEIR fails, however, to identify which pollutants the region is in nonattainment and attainment for under the 6

State ambient air quality standards. The Final EIR must clarify this information and consider whether it changes any of the direct or cumulative impact conclusions for the Project. 7 cont.

Additionally, although the Health Risk Assessment in Appendix C shows sensitive receptors near the proposed Project, the DEIR does not specify whether any sensitive receptors exist along the routes that vehicles and trucks associated with the Project would use. DEIR page 3.3-20 also lists the sensitive receptors within a quarter-mile of the project site. There may be other sensitive receptors along, or within a quarter-mile of, the truck travel routes that may be exposed to emissions from collection and transfer trucks, including those that are diesel powered. Because the Project would accept and transfer waste 24 hours a day, seven days a week, an understanding of what sensitive receptors may be impacted by Project-related truck traffic trips is necessary. The omission of this information in the DEIR results in potentially under-reporting the potential impacts under Threshold AQ-6 as analyzed in the DEIR. 8

A revised analysis should also reflect the City's consideration of the existing environment through application of Cal EPA and the Office of Environmental Health Hazard Assessment (OEHHA)'s adopted California Communities Environmental Health Screening Tool, Version 1.1 (CalEnviroScreen 1.1) which presents a comprehensive screening methodology to identify California communities that are disproportionately burdened by multiple sources of pollution and presents the statewide results of the analysis using the screening tool. [2] 9

B. The DEIR Fails to Include Accurate Information About the Significance Thresholds.

The DEIR also provides inaccurate information about the significance thresholds for air quality impacts. Table 3.3-3 provides SCAQMD's air quality significance thresholds. The DEIR incorrectly states that the significance threshold for $PM_{2.5}$ is 150 pounds per day (lbs/day) for construction activities. (DEIR, p. 3.3.-2.) Per SCAQMD guidance, the threshold is 55 lbs/day. (See SCAQMD *Air Quality Significance Thresholds*, http:///www.aqmd.gov/ceqa /hdbk.html.) The City must consider whether a significant adverse impact would result from the proposed Project given this threshold. 10

Table 3.3-3 also fails to include SCAQMD's significance thresholds for lead and sulfur oxides (SOx). For lead, the significance threshold is 3 lbs/day for construction and operation activities. (*Ibid.*) For SOx, the significance threshold is 150 lbs/day for construction and operation activities. (*Ibid.*) The DEIR must be revised to include this information and consider whether emissions from the Project would exceed these additional thresholds. 11

[2]/ See http://oehha.ca.gov/ej/ces11.html

C. The DEIR's Analysis and Mitigation of Impacts Associated with Construction Activities Under Threshold AQ-1 are Inadequate.

1. The DEIR Fails to Include Background Assumptions About Construction Equipment and Construction-Related Mobile Sources.

Many assumptions about construction equipment lack substantial evidence and are not explained with respect to the DEIR's analysis under Threshold AQ-1. The DEIR states that the daily construction emissions were estimated by applying the mobile-source and fugitive dust emissions factors from the CALEEMod model. The CALEEMod output sheets, which detail construction equipment assumptions, were purportedly provided as Appendix C. Appendix C, however, is a 15-page Air Quality and Health Risk Assessment report – not the CALEEMod output sheets detailing the number and type of construction equipment proposed to be used during the construction and assumed for fugitive dust emissions. Please clarify. 12

Without information about the construction equipment assumptions, it is impossible to determine whether the DEIR's analysis adequately considered all construction related activities while capturing the full scope of anticipated air quality impacts. It is unknown, for example, how long construction equipment would be operating each day at the site over the 18-month construction period. Additionally, it is unclear whether the various pieces of construction equipment would operate simultaneously, and therefore overlap, or if their operating times would be staggered. Although Tables 3.3-4 and 3.3-5 show the pollutant estimates for years 2015 and 2016, they omit information regarding what kind of construction activities would occur, and the types of construction equipment that would occur. It is also unclear whether soil would need to be trucked to or from the site during construction. 13

Lastly, the DEIR lacks substantial evidence regarding mobile source emissions related to construction activities. DEIR page 3.3-24 states that nitrogen oxides (NOx), reactive organic gases (ROG), particulate matter less than 10 micrometers (PM_{10}), $PM_{2.5}$, and CO emissions estimates were based on maximum crew and truck trips. The DEIR also states that emissions are based on CALEEMod emissions factors. The DEIR does not state, however, the number of construction employee and truck trips that were assumed for the air quality analysis. This information needs to be identified and included in the analysis. 14

2. The DEIR's Assumed Reductions in Particulate Matter are Not Supported by Substantial Evidence.

DEIR page 3.3-24 states that the "application of appropriate emission control devices, the use of newer equipment, or other exhaust mitigation measures would reduce exhaust particulate matter by 50 percent." The DEIR does not specifically describe what devices, equipment, and mitigation measures would result in a 50 percent reduction, thus this statement is not supported by any substantial evidence. 15

3. Mitigation Measures Proposed to Address Construction Emissions Are Inadequate and Vague.

A number of the alleged mitigation measures to address adverse construction emissions impacts include impermissibly vague or inconsistent provisions that cannot be enforced or proven effective. First, Mitigation Measure (MM) AQ-9 fails to specify what "appropriate emission control devices" shall be required for older construction equipment. (DEIR, p. 3.3-26.) Because it is unknown what "appropriate emission control devices" would be applied, the efficacy of MM AQ-9 cannot be evaluated, and an agency may not rely on mitigation measures of uncertain efficacy. (*California Clean Energy Comm. v. City of Woodland* (2014) 225 Cal.App.4th 173 (2014) [speculative mitigation measures do not comply with CEQA]; *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 690, 727 [groundwater purchase agreement was inadequate mitigation because no record evidence showed that replacement water was available].) 16

MM AQ-9 should also be revised to specifically require that older construction equipment be retrofitted to ensure there is not an exceedance of applicable air quality thresholds or a substantial contribution to an exceedance. Finally, MM AQ-5 and MM AQ-10 should be made consistent with each other and require that the measures apply to all construction equipment, both on- and off-site. (DEIR, p. 3.3-26.) 17

D. The DEIR's Analysis and Mitigation of Impacts Associated with Operational Activities Under Threshold AQ-2 are Inadequate.

1. The DEIR's Assumptions About Baseline Conditions are not Supported by Substantial Evidence and Result in Understating Impacts of the Project.

As with all of the resource areas considered in the DEIR, the City was required to use the existing physical environment at the time of issuance of the Notice of Preparation (issued in June 2013) against which to analyze the potentially significant adverse impacts, including air quality impacts, of the Project. (CEQA Guidelines, § 15125, subd. (a); *Neighbors for Smart Rail v. Exposition Metro Line Const. Authority* (2013) 57 Cal.4th 439, 453.) 18

Here, the DEIR is inadequate because it failed to establish an accurate environmental setting for the Project. The DEIR states:

> For the purposes of assessing the impacts to air quality from vehicle emissions, the Proposed Project is expected to result in relocated emissions. . . . Therefore, a substantial amount of emissions that will come from solid waste collection trucks and transfer trucks coming to and from the Project site are existing emissions already occurring in the Basin and will not be new emissions created from new trips that are a reasonable foreseeable result of the development of the Project. . . . the EIR assumes a baseline condition that takes into consideration these existing relocated emissions.

> However, to be extremely conservative and to avoid under-representing any potential air quality impacts from the Proposed Project, the City has reduced the identified existing truck trips, and their associated emission, in half.

18 cont.

(DEIR, p. 3.3-28.)

To account for the assumed "relocated" emissions, the "Baseline Condition assumes a maximum throughput of 2,180 tons per day and resultant truck trips." (DEIR, p. 3.3-28.) This amount is "based on information provided by the applicant of their current operations that will be relocated to the Project site[.]" (DEIR, p. 3.3-28.) To support the baseline amount of tons per day and associated trucks trips, the DEIR cites a May 29, 2009 Regional Efficiency Study. (DEIR, pp. 3.3-28 [footnote 1], 3.3-30 [Table 3.3-6].)

The City's assumption of baseline conditions is not supported by substantial evidence. For one, the DEIR does not specify whether the "current operations" includes all applicant-owned collection and transfer trucks. To the extent that any third-party trucks are included in the baseline estimates, there is no substantial evidence to show that the applicant already has modified, or will be modifying, its contracts with third-party trucks to require that the trucks travel to the proposed Project once it is operational. The estimated daily baseline emissions from Project operation reflected in Table 3.3-8 includes emissions for self-haul trucks, but there is no evidence to support that existing self-haul trips should be included as part of the Project's baseline conditions.

Moreover, the DEIR's citation to the 2009 Regional Efficiency Study is stale and does not reflect year 2012 conditions. The background data from the 2009 Regional Efficiency Study is also unknown. Thus, the estimated daily baseline emissions from the Project's operation (Table 3.3-8) is overstated and is not supported by substantial evidence. This also skews the local air quality analysis for impacts such as localized CO and PM hot spots because the trucks do not yet exist as part of the actual baseline conditions surrounding the Project site. By failing to use the existing actual physical conditions as the baseline the DEIR's analysis fails to identify all of the potentially significant adverse air quality and traffic impacts of the Project. It also results in less mitigation. The Project's unmitigated emissions in Table 3.3-9, for example, are also therefore skewed and not supported by substantial evidence. (DEIR, p. 3.3-35.)

2. The DEIR's Conclusion Regarding Regional Efficiencies Lacks Substantial Evidence.

The DEIR makes an unsupported assumption about the effect of the regional efficiencies on Project emissions. The DEIR states that "regional efficiencies would reduce both criteria pollutants and GHG emissions . . . because existing transfer trucks occur between an existing transfer station and landfill." (DEIR, p. 3.3-34.) The DEIR continues by stating that "[t]hese proposed trips would be shorter in distance due to the

19

Proposed Project's central location and the higher volume of material captured for recycling." (DEIR, p. 3.3-34.) In other words, the DEIR claims that there will regional efficiencies on the second half of the journey for waste materials (i.e., the trip from a MRF/TS to a landfill). 19 cont.

But, Table 3.3-7 (Regional Efficiency – Distance from Regional Transfer Stations to Landfill, Recycling, and Composting) shows that in some cases, the distance between the proposed Project and the receiving facility is actually longer than the distance between the existing facilities and the same final destinations. For example, the distance between the Project and San Timoteo Landfill is 53 miles whereas it is 48.1 miles from the Grand Central TS to San Timoteo Landfill. Additionally, the distance between the Project and Victorville is 73 miles whereas the distance between the Grand Central TS and Victorville is 69.1 miles. Thus, in some cases, the Project would likely result in higher ROG and NOx emissions compared to existing trips.

3. The DEIR Includes Inadequate Mitigation For Operational ROG and NOx Emissions.

The DEIR concludes that emissions of ROG and NOx would be potentially significant in the Basin, and identifies mitigation measures MM AQ-13 through MM AQ-19 to lessen the significance, although not to less-than-significant levels. Most of the measures are not true mitigation measures because they merely require compliance with existing local, State, and federal laws. MM AQ-14 and MM AQ-16, for example, would implement SCAQMD rules. MM AQ-18 would implement U.S. Environmental Protection Agency standards. MM AQ-19 would implement State regulations in California Code of Regulations, title 13, section 2485. (DEIR, pp. 3.3-34 to 3.3-35.) An additional measure could include a requirement that trucks engaging in unloading at the Project site and load weighing/financial transactions at the scale house to be prohibited from idling in excess of five minutes. 20

The DEIR provides a discussion of infeasible mitigation measures. (DEIR, p. 3.3-37.) The DEIR states that the high cost of refuse collection vehicles prohibits the use and/or purchase of all alternative fueled vehicles beyond what is required by Rule 1193. (DEIR, p. 3.3-37.) The DEIR should consider, however, a mitigation measure requiring a greater portion of the applicant's transfer trucks and solid waste vehicles (such as 75 percent) to be alternatively fueled rather than a mitigation measure to convert the applicant's entire truck fleet, which it deems is infeasible. The DEIR should also consider a mitigation measure requiring the applicant to phase in, on a yearly basis, new collection and transfer trucks. 21

Staggering the early replacement of older, heavy-duty trucks would help alleviate concerns about cost. The website for Athens Services recognizes the feasibility of such mitigation. (See http://www.athensservices.com/commitment/our-commitment.html [Athens Earth Commitment pledge includes "[o]perating alternative fuel vehicles and investing in a phase-in plan to convert our entire collection fleet"].)

The DEIR also states that it would be infeasible as a mitigation measure to require third-party collection trucks to be alternatively fueled. The DEIR therefore makes no attempt to mitigate emissions from third-party trucks. (DEIR, p. 3.3-37.) Because some third-party haulers (collection trucks) would not be subject to Rule 1193, mitigation, in the form of contract requirements, to reduce impacts from these trucks that utilize the facility should be considered. The DEIR could include, for example, a mitigation measure requiring that any diesel truck operators that use the facility to apply in good faith for funding from an established CARB or SCAQMD funding program to either retrofit or replace their engines.[3] 22

E. The DEIR Relies on Incorrect Information to Determine the Localized Significance Thresholds in Analyzing Impacts Associated with Construction and Operational Activities Under Threshold AQ-3.

The DEIR claims localized significance threshold (LST) "tables were used to determine the facility-specific threshold based on the following information: . . . The maximum mitigated daily construction and operational emissions estimates occurring onsite (Tables 3.3-5 and 3.3-8)." (DEIR, p. 3.3-38.) Reliance on the maximum *mitigated* daily construction and operational emissions are incorrect per SCAQMD guidance. 23

Instead, the DEIR should identify the *unmitigated* calculated emissions for the proposed construction and operational activities. SCAQMD's Final Localized Significance Threshold Methodology states that, among things, the information needed to use the LST lookup tables includes "[m]aximum daily concentrations of CO, NOx, $PM_{2.5}$ and PM_{10} in pounds per day[.]" (*Id.* at p. 3-1 [Revised June 2008].) SCAQMD's guidance does not allow for *mitigated* concentrations to first be used in the calculation of emissions. Thus, per SCAQMD guidance, the DEIR's discussion under Threshold AQ-3 must be updated to accurately reflect the correct LSTs for construction and operation of the proposed Project and accurate analyses that relies on correct inputs. To the extent that the updated analysis results in new significant adverse air quality impacts, the DEIR must propose adequate mitigation and be recirculated.

F. The DEIR's Analysis and Mitigation of Impacts Associated with Operational Activities Under Threshold AQ-4 Are Inadequate.

The DEIR considers whether the project-related operational activities would cause an exceedance of the California Ambient Air Quality Standards (CAAQS) for CO at traffic intersections. (DEIR, p. 3.3-39.) CO emissions are not the only pollutants of major concern along roadways, however. The DEIR fails to analyze whether the 24

[3]/ CARB and SCAQMD have information on their websites about funding programs that could be utilized: http://www.aqmd.gov/tao/implementation/index.htm and http://www.arb.ca.gov/msprog/truckstop/azregs/fa_resources.htm.

operational activities would cause an exceedance of the CAAQS of particular matter (PM), another pollutant of major concern along roadways. Particulate matter is of particular concern here because CARB has identified Los Angeles County to be in non-attainment for $PM_{2.5}$ and PM_{10} with respect to the State standards. The DEIR's analysis must be revised to include discussion of these pollutants and it must do so against the backdrop of the actual existing baseline conditions at the time of the NOP, not the unsubstantiated baseline assumed in the EIR, considering sensitive receptors along the truck travel routes. 24 cont.

The analysis under Threshold AQ-4 appears to combine the analysis of impacts with proposed mitigation to find that CO concentrations at certain intersection would be less than significant. The DEIR identifies two intersections that will operate at LOS F: 1) the intersection of I-605 Freeway Northbound off-ramp at Live Oak Avenue under Existing Plus Project conditions, and 2) I-605 southbound off-ramp/Arrow Highway under Long Range (2035) Plus Project conditions. (DEIR, p. 3.3-39.) Intersections operating at LOS of D or worse are considered to have the potential to cause CO concentrations to exceed the CAAQS. The DEIR then states that mitigation measures MM T-1 and MM T-2 "are expected to improve LOS to above E and F." (DEIR, p. 3.3-40.) Therefore, according to the DEIR, "it is not anticipated that the Project will cause CO concentrations at these intersections/facilities to exceed CAAQS." (DEIR, p. 3.3-40.) The DEIR does not separately propose MM T-1 and MM T-2 to reduce the impacts' significance levels.

This approach was expressly rejected in *Lotus, et al. v. Department of Transportation, et al.* (2014) 223 Cal.App.4th 645 (*Lotus*). In *Lotus*, Caltrans sought to widen parts of Route 101 because the narrow, windy roads did not meet current design standards and prevented large trucks from easy access to Humboldt County. The project's primary environmental impacts included tree removal and potential damage to tree roots caused by excavation and fill. The EIR also included "avoidance, minimization and/or mitigation measures" that were incorporated into the project. Such measures included requirements for specific construction techniques. The EIR concluded that "no significant environmental impacts are expected as a result of this project with implementation of the stated special construction techniques." (*Id.* at p. 651.) 25

The Court of Appeal concluded that the EIR failed to properly evaluate the project's impacts on root systems of old growth trees bordering the roadway. The agency's error was compounded by combining the mitigation measures into the project description and then concluding that any potential impacts would be less than significant. By failing to determine the significance of the impacts to the root zones in the first instance, the court found it impossible to determine whether mitigation measures would be required or to evaluate whether other more effective measures should be considered. (*Id.* at pp. 656-658.)

Here, too, the DEIR commits a grave error by identifying a significant adverse impact, and instead of proposing feasible mitigation to reduce the significance level, the

DEIR concluded that because MM T-1 and MM T-2 would be imposed, CO concentrations would be less than significant in the first instance. The DEIR must be revised to separate the discussion of impacts associated with CO concentrations at study area intersections and proposed mitigation measures to address those impacts. 25 cont.

G. The DEIR Omits Analysis and Mitigation of Operational Impacts on Sensitive Receptors Under Threshold AQ-5.

The DEIR states that the greatest potential impact from toxic air contaminants (TACs) would be diesel particulate emissions from trucks during operation. (DEIR, p. 3.3-40.) The DEIR also identified that construction activities would include the use of diesel-operated equipment. (DEIR, p. 3.3-23.) Here, the DEIR fails to analyze whether construction activities, and not just operational activities, would expose sensitive receptors to TACs. 26

Additionally, the DEIR fails to identify and discuss the maximum incremental cancer risks from Project operation and construction on recreationists using the nearby Santa Fe Dam bike/pedestrian path. (DEIR, p. 3.3-41.) The DEIR identifies the bike/pedestrian path as a sensitive receptor within one-quarter of a mile of the Project site (approximately 480 feet from the nearest property line). (DEIR, p. 3.3-20.) Appendix C also identifies outdoor recreational areas as sensitive receptors, but the DEIR fails to include the maximum incremental cancer risks for recreational users. (DEIR, Appendix C, p. 9.) To the extent that the missing analysis reveals an adverse impact, the DEIR must be revised to include adequate mitigation measures. 27

Furthermore, neither the DEIR nor Appendix C defines the "zone of impact" as that term is used in the analysis of air quality impacts on sensitive receptors. The DEIR states that "[t]he results of the cancer burden analysis indicate that less than one case (0.005) of cancer would be expected within the zone of impact." (DEIR, p. 3.3-42.) The DEIR must clarify the meaning of this term. 28

Finally, the DEIR fails to support its conclusions about the exposure of sensitive receptors to non-carcinogenic substances. The DEIR concludes that the maximum chronic hazard index is 0.04, and concludes that the maximum acute hazard index is 0.16 and thus both are less than significant based on a threshold of 1.0. (DEIR, p. 3.3-41.) Neither the DEIR nor Appendix C explains how these values of 0.04 and 0.16 were calculated, and Appendix C does not include the maximum acute chronic and maximum acute hazard indexes associated with the Project. The DEIR and Appendix C must be revised to include this omitted information. 29

H. The DEIR Improperly Analyzes and Mitigates Odor Impacts Under Threshold AQ-6.

The DEIR fails to provide a clear analysis of the odor impacts resulting from Project operation, and appears to rely on mitigation measures lacking performance standards to conclude that odor impacts would be less than significant. Specifically, the 30

DEIR states that because of design features the Project is not expected to generate significant odors. (DEIR, pp. 3.3-42 to 3.3-43 ["With implementation of the odor control measures as conditions of project approval," the Project would not impact the water tanks associated with the Project Variant"].) The DEIR claims the Project would comply with SCAQMD Rule 410, which establishes odor management practices and requirements to reduce odors from msw transfer stations and MRFs. (DEIR, p. 3.343.) The DEIR also punts to future yet to be prepared plans, claiming that "[i]n addition to compliance with SCAQMD rules and regulations, the Proposed Project would implement On-Site Management Plans to control odors and emissions. These plans are approved by the City and made conditions on the Proposed Project and as such, will be enforceable by the City." (DEIR, p. 3.3-45.) Finally, the DEIR states that "[i]n addition to the On-site Management Plans and the SCAQMD Rule 410 requirements, the following mitigation measures will be required to further assure that there will be no impacts from the odor emissions from the Project[.]" (DEIR, p. 3.3-49.) 30 cont.

The DEIR's analysis appears to be jumbled and improperly relies in part on the application of the On-Site Management Plans to ensure that odor impacts are less than significant. (See, e.g., *Lotus, supra,* 223 Cal.App.4th at p. 391.) Doing so results in an improper analysis of the full scope of the Project's odor impacts.

More importantly, the DEIR proposes mitigation that is inconsistent with SCAQMD's rules. Specifically, MM AQ-22 is inconsistent with SCAQMD Rule 410. Appendix A of Rule 410 includes required elements for all Odor Management Plans. Appendix A specifies that when an odor complaint is received for the facility, "a facility representative is required to conduct an odor survey of the surrounding community as soon as practical, but not to exceed 2 hours after receiving the complaint," or notification from SCAQMD or the Local Enforcement Agency. (SCAQMD Rule 410, Appendix A, §6.) MM AQ-22 should incorporate the requirements from Rule 410, thus requiring that a facility representative conduct an odor survey at least within 2 hours of receiving an odor complaint. (DEIR, pp. 3.3-49 to -50.)

I. The DEIR Fails to Include an Adequate Analysis and Mitigation of GHG Impacts Under Threshold AQ-7.

1. The DEIR Fails to Analyze Consistency with CARB-Recommended Strategies to Reduce GHG Emissions.

The GHG analysis does not adequately analyze whether the Project would be consistent the CARB-recommended strategies, including compliance with the reductions in Business as Usual (BAU) levels identified in the Scoping Plan adopted for purposes of complying with AB 32, and the amount of reductions that the Project would achieve with implementation of the applicable strategies. In particular, the DEIR fails to assess the significance of the Project's GHG emissions based on consistency with AB 32 by comparing the proposed Project's GHG emissions to the proposed Project's emissions if the Project were built under a BAU approach. In its 2008 Scoping Plan, CARB 31

determined that achieving the 1990 emission level in 2020 would require a reduction in GHG emissions of approximately 28.5% in the absence of new laws and regulations. Here, the DEIR must include a discussion of whether the Project meets AB 32's goals in the Scoping Plan. The DEIR fails to discuss precisely which of CARB's recommended actions apply here and what emissions reductions would be realized. The DEIR further fails to adequately document the quantitative or qualitative effect of the Project's design features and regional efficiencies on GHG emissions. (*Friends of Oroville v. City of Oroville* (2013) 219 Cal.App.4th 832, 842-843; see generally *Communities for a Better Environment v. City of Richmond* (2010) 184 Cal.App.4th 70, 93 [agency setting a goal of no net increase in GHG emissions yet failing to calculate what reductions in emission would result from vaguely described future mitigation measures].) 31 cont.

Instead, the DEIR only states in one sentence that "the project does not pose any apparent conflict with the CARB recommended actions[.]" (DEIR, p. 3.3-51.) Mere unsupported belief is not substantial evidence of a less-than-significant or no impact. (Guidelines, §15384, subd. (a) [substantial evidence does not include "[a]rgument, speculation, unsubstantiated opinion or narrative"].) The DEIR also casually states that "design features and regional efficiencies would reduce GHG emissions below what is stated in this analysis." (DEIR, p. 3.3-53.) An EIR must include facts and analysis rather than just the "bare conclusions" of a public agency. (*Santiago Water Dist. v. County of Orange* (1981) 118 Cal.App.3d 818, 831.) To be able to support its conclusion, the DEIR needs to review each recommended action and analyze whether there would be a conflict.

2. Substantial Evidence Does Not Support the Amount of the DEIR's GHG Emissions.

Appendix C omits critical information to show how the City calculated the GHG emissions resulting from Project construction and operation. The DEIR refers to Appendix C in stating that baseline operational GHG emissions would be approximately 21,152 metric tons of CO_2e per year and the proposed Project's operational emissions would be approximately 52,665 metric tons of CO_2e per year. (DEIR, p. 3.3-51.) The DEIR also states that construction emissions would be approximately 686 metric tons CO_2e per year. Appendix C does not include any information, however, to support these calculations.

32

It is unknown, for example, which project activities (during both construction and operation phases) would result in direct and indirect emissions of particular pollutants, and thus the GHG impact analysis is impossible to verify as accurate. It is also unknown what assumptions were used to calculate the baseline GHG emissions. Please clarify.

The discussion of the project components and their potential for GHG emissions should be stated in the DEIR itself, and not relegated to the appendix. Such an approach does not reflect a "good faith effort at full disclosure" as required by CEQA. As discussed above, a number of deficiencies are found in the air quality analysis regarding the

inadequate analysis of air quality impacts. To the extent that these inadequacies have resulted in an under-reporting of GHG emissions, the GHG analysis must also be revised. 32 cont.

Relatedly, regarding the calculation of GHG emissions, the DEIR inexplicably departs from SCAQMD's guidance on calculating emissions. The DEIR reviews the GHG emissions from construction and operation phases, compares the emissions from those activities against the adopted threshold of 10,000 metric tons CO_2e per year (for stationary sources), and then makes a separate significance determination as to construction and operation phases. SCAQMD recommends, however, that construction emissions be amortized over a 30-year project lifetime and added to the operational emissions to determine significance. (See SCAQMD GHG guidance, http://www.aqmd.gov/hb/2008/December/081231a.htm.) Thus, the amortized construction emissions should have been added to the operational emissions to present a total amount of estimated GHG emissions.

3. The DEIR Includes Inadequate GHG Mitigation Measures.

MM AQ-24 requires the applicant to purchase GHG offset credits. (DEIR, p. 3.3-52.) MM AQ-24 fails to specify that offset credits must be purchased on a yearly basis. It is also unclear from what adopted offset credit program the credits would be acquired and how they would be used to actually reduce GHG emissions. Please clarify. 33

Without specifying the time for performance, there is no assurance that this measure would be implemented. Additionally, off-set credits are only required based on 21,152 metric tons, which is the baseline operational GHG emissions assumed in the EIR. (DEIR, p. 3.3-52.) As explained above, this baseline is erroneous. None of the GHG emissions calculations can be verified as accurate, moreover, and MM AQ-24 may not result in an appropriate amount of GHG emissions offsets. 34

To further ensure that GHG emissions would be less than significant, the DEIR should include a mitigation measure to specifically require compliance with Title 24 and CAPCOA's GHG Registry exchange (of which the SCAQMD is a participating air district). Verification of compliance should also be documented in Title 24 Compliance Reports provided by the applicant, and reviewed and approved by the City prior to the issuance of the building permit. 35

J. The DEIR Fails to Analyze and Mitigate Secondary Air Quality and GHG Impacts Associated with Construction of Traffic Improvements.

The DEIR's Traffic Generation and Circulation chapter (Chapter 3.12) proposes a Traffic Mitigation Program that includes off-site and on-site improvements. (DEIR, pp. 3.12-95 to 3.12-98.) For example, MM T-1 proposes the construction of turn lanes. (DEIR, p. 3.12-95.) But Chapter 3.3 does not appear to address any secondary air quality and GHG impacts that may occur with construction of traffic improvements. (CEQA Guidelines, § 15126.4, subd. (a)(1)(D) ["If a mitigation measure would cause 36

one or more significant effects in addition to those that would be caused by the project as proposed, the effects of the mitigation measure shall be discussed but in less detail than the significant effects of the project as proposed"].) 36 cont.

K. The DEIR Fails to Provide Any Feasible Mitigation Measures to Reduce Cumulative Air Quality Impacts.

The DEIR's discussion of cumulative air quality impacts is insufficient and fails to apply any feasible mitigation measures to the significant and unavoidable cumulative impact associated with operation phase ozone precursors. CEQA requires partial mitigation where feasible. Additionally, as noted earlier, the DEIR fails to include a discussion of the estimated emissions that would occur from each type of operational activity. 37

L. Other Specific Inaccuracies and Omissions in the DEIR Related to the Air Quality Analysis.

General	The DEIR's analysis fails to discuss whether SOx emissions exceed the SCAQMD threshold of 150 lbs/day for construction and operational activities. (SCAQMD *Air Quality Significance Thresholds*, http:///www.aqmd.gov/ceqa /hdbk.html.)	38
General	If the Project Variant was approved, "the Applicant would need to hire sub-hauler vendors for all transfer truck operations, and the office/visitors' center would be incorporated into the main MRF/TS building." (DEIR, p. ES-4.) The DEIR concludes that with the Project Variant, there would no difference in the air quality analysis. (DEIR, pp. 3.3-33, 3.3-36.) This conclusion is not supported by substantial evidence. The DEIR fails to state whether the proposed mitigation measures would apply to third-party transfer trucks. Without application of the mitigation measures to transfer trucks, it is not clear whether the Project Variant would result in less-than-significant impacts associated with ROG and NOx.	39
DEIR, p. 3.3-2	The existing setting section should also describe volatile organic compounds and reactive organic gases as they are repeatedly mentioned throughout Chapter 3.3.	40
DEIR, p. 3.3-3	Table 3.3-1, Air Quality Data Summary, should also include monitoring data for nitrogen dioxide. Because the air basin is currently in non-attainment for NO_2, the DEIR should include the ambient air quality measurements for NO_2 as well as an analysis of the impacts.	41
DEIR, p. 3.3-11	Discussion of Rule 410 should specify that Rule 410(e) requires the Project to develop an Odor Management Plan to be approved by either SCAQMD or CalRecycle. As noted earlier, Chapter 2 should include SCAQMD or CalRecycle's approval in Table 2-6.	42
DEIR, p. 3.3-18	The DEIR's discussion of CARB's Scoping Plan should be updated	43

	to reflect CARB's recent release of the Proposed First Update to the Climate Change Scoping Plan, dated February 2014.	43 cont.
DEIR, pp. 3.3-20 to 22	The DEIR states the significance threshold for GHGs in SCAQMD's *Air Quality Handbook* applies to the impact analysis. DEIR page 3.3-19 appears to describe the quantitative threshold, but this discussion should be included in section 3.3.3. The qualitative thresholds of significance from Appendix G should also be included in section 3.3.3.	44
DEIR, p. 3.3-22	The DEIR states the Project would result in a significant operational air quality impact if the Project would not be compatible with the County of Los Angeles and/or City air quality goals and policies. The DEIR does not discuss any applicable County or City goals and policies.	45
DEIR, p. 3.3-22	The footnote in Table 3.3-3 should specify that the SCAQMD *Air Quality Significance Thresholds* guidance is dated March 2011.	46
DEIR, p. 3.3-22	The text should be updated to accurately reflect SCAQMD's thresholds: The Proposed Project would result in a significant air quality impact if the carcinogenic or toxic air contaminants individually or cumulatively <u>are equal to or</u> exceed the maximum individual cancer risk of ten in one million or an acute or chronic hazard index of 1.0	47
DEIR, p. 3.3-25	MM AQ-1 is impermissibly vague. The following sentence should be added to the first paragraph in MM AQ-1: Prior to issuance of any grading permit, the City Engineer and Senior Building Inspector shall confirm that the grading plan and building plans stipulate that, in compliance with SCAQMD Rule 403, fugitive dust shall be controlled by the all of the applicable best available control measures listed in Table 1 of Rule 403. The first bullet point under MM AQ-1 must be modified to further ensure that fugitive dust emissions are less than significant. The mitigation measure currently does not state how frequently water or a stabilizing agent will be applied. • Water or a stabilizing agent shall be applied <u>at least three times daily, preferably in the mid-morning, afternoon, and after work is done for the day</u>, to exposed surfaces <u>including graded and disturbed areas</u> in sufficient quantity to prevent generation of dust plumes. The second bullet point under MM AQ-1 appears to be impermissibly vague and fails to specify how the mitigation will be carried out. MM AQ-1 currently provides no method by which the construction contractor will ensure that track-out will not extend 25	48 49

	feet or more. MM AQ-1 should be modified as follows: • Track-out shall not extend 25 feet or more from an active operation and track-out shall be removed at the conclusion of each workday. The contractor shall use a gravel apron, 25 feet long by road width, or a pipe-grid trackout control device to reduce mud/dirt trackout from active operations and unpaved truck exit routes. The fourth bullet point under MM AQ-1 must be modified to provide adequate mitigation. The fourth bullet point requires that all haul trucks maintain at least six inches of freeboard in accordance with California Vehicle Code Section 23114. (DEIR, p. 3.3-25.) Section 23114, subdivision (e)(4), states: "Vehicles transporting loads of aggregate materials are not required to cover their loads if the load, where it contacts the sides, front, and back of the cargo container area, remains six inches from the upper edge of the container area, and if the load does not extend, at its peak, above any part of the upper edge of the cargo container area." Reliance on Section 23114 is incorrect here because this section specifically relates to spilling loads on state highways. SCAQMD provides examples of feasible mitigation measures to reduce fugitive dust from construction activities, including grading. (SCAQMD, Table XI-A, Mitigation Measure Examples: Fugitive Dust From Construction & Demolition, p. 2.) Consistent with SCAQMD's guidance, the fourth bullet point must be modified to require at least 12 inches of freeboard.	49 cont. 50
DEIR, p. 3.3-25	MM AQ-5 should be modified to require signage notifying construction equipment operators of equipment idling time limits: MM AQ-5 All construction vehicles shall be prohibited from idling in excess of five minutes, both on- and off-site. The construction contractor shall post visible signage within construction equipment operator components notifying equipment operators of the prohibiting against idling in excess of five minutes. The construction contractor shall provide awareness training to equipment operators regarding idling limits.	51
DEIR, p. 3.3-26	MM AQ-7 requires that "[h]eavy equipment operations shall be suspended during first and second stage smog alerts." (DEIR, p. 3.3-26.) MM AQ-3, which targets construction activities, should be modified to discontinue construction activities during first and second stage smog alerts. MM AQ-3 should further specify that all	52

	construction activities must be discontinued during this time.	52 cont.
DEIR, p. 3.3-27	The DEIR provides a list of sources of operational emissions. The list includes off-site vehicle emissions, including transfer trucks, self-haul trucks, and employee traffic. Similarly, DEIR page 3.3-31 includes the maximum estimated daily number of truck trips, employee trips, and trips associated with the convenience store and service station. The DEIR must also include off-site vehicle emissions from visitors coming to the visitor center. To the extent that Chapter 3.3 failed to account for emissions from visitors' vehicles, the EIR must be revised.	53
DEIR, p. 3.3-33	The DEIR states that all of the emissions from Project operations, off-site vehicles, on-site idling, on-site heavy equipment, the service station, and area source emissions are provided in Appendix C. None of this information appears to be in Appendix C, however, and must be included.	54
DEIR, p. 3.3-35	MM AQ-18 appears to address impacts associated with construction equipment. To address operational impacts, the DEIR should require that all on-site heavy-duty equipment be powered by natural gas. The DEIR states that all forklifts, lifts, and street sweepers would already be powered by natural gas. (DEIR, p. 3.3-32.) At the very least, MM AQ-18 should be modified in the following manner to address operational impacts: The Project Applicant shall require all on-site off-road heavy-duty equipment to meet USEPA Tier 3 or higher emissions standards such that all off-road diesel-powered operational equipment greater than 50 horsepower (hp) shall meet Tier 3 off-road emissions standards. In addition, all ~~construction~~ <u>on-site off-road</u> equipment <u>used in operation of the Project</u> shall be outfitted with the Best Available Control Technology (BACT) devices certified by CARB. Any emissions control device used by the ~~contractor~~ <u>applicant</u> shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations. <u>A copy of the certified tier specification for each piece of heavy-duty equipment, BACT documentation, and CARB or SCAQMD operating permit shall be provided to the City prior to operation of the Project</u>.	55
DEIR, p. 3.3-35	MM AQ-19 should be modified to require signage notifying equipment operators of equipment idling time limits: All diesel truck operators shall strictly abide by the applicable State law requirements for idling, as described in the Airborne Toxic Control Measure (CCR, Title 13, Section	56

	2485), which limits vehicles with gross vehicular weight ratings of more than 10,000 pounds to no more than five minutes of idling of the primary engine or the diesel-fueled auxiliary power system at any location. Visible signage notifying truck operators of idling limits shall be posted near all site entrances.	56 cont.
DEIR, p. 3.3-39	The DEIR states that a preliminary screening method was consulted for the CO hotspot analysis. The DEIR should state the source of the preliminary screening method, which is presumably the California Department of Transportation's *Transportation Project-Level Carbon Monoxide Protocol* (December 1997).	57
DEIR, p. 3.3-49	As the DEIR acknowledges, SCAQMD Rule 410 establishes odor management practices and requirements to reduce odors from msw and MRFs. (DEIR, p.3-43.) The DEIR further acknowledges the Project would be required to submit and receive SCAQMD approval of an Alternative Odor Management Plan to SCAQMD, and implement Level 2 odor control strategies. (DEIR, pp. 3.3-43 to -44, -47.) MM AQ-21 should be revised to specifically require that all required elements for OMPs and Level 2 odor control strategies listed in Rule 410 Appendix A shall apply.	58
DEIR, p. 3.3-50	MM AQ-23 should specify that signage shall conform to the requirements in Appendix A of Rule 410.	59

V. The DEIR Fails to Adequately Identify and Mitigate Significant Adverse Traffic Impacts that Would Result from the Project if Approved.

As noted in our June 13, 2013 comment letter on the Notice of Preparation, our clients remain very concerned that the EIR identify all of the significant adverse traffic impacts (direct and cumulative) that would result from the Project, and impose mitigation measures that ensure those impacts are mitigated to the extent feasible.

Our client therefore retained its own expert, MRO Engineers, to peer review the traffic analysis and technical study in the DEIR. A true and correct copy of that analysis is incorporated by reference herein and attached as Attachment A to this letter. The City must treat the comments of MRO Engineers as additional comments received on the DEIR for which a good faith response is also required. 60

We have the following additional comments on the traffic analysis:

A. The Traffic Analysis Includes an Incorrect Baseline.

As more fully discussed by Mr. Liddicoat, the traffic analysis relies on outdated traffic volume data from 2011 rather than up-to-date traffic counts (i.e. 2013). (See DEIR, p. p. 3.12-19; CEQA Guidelines, § 15125, subd. (a) ["An EIR must include a description of the physical environmental conditions in the vicinity of the project, as they exist at the time the notice of preparation is published[.]".) In particular, the DEIR states

that the intersection turning movement counts employed in the traffic impact analysis were "based upon manual AM and PM peak period turning movement counts conducted on June 2011, and adjusted for 2013 conditions based upon 24-hour roadway segment counts." (DEIR, p. 3.12-19.) Accepted practice within the traffic engineering profession is to view three year-old traffic data (i.e., year 2011 volumes) as obsolete. The City's own 2004 *Policy Guidelines for Traffic Impact Reports* even states that "traffic counts shall not be used if more than one year old." 61 cont.

The California Supreme Court recently explained that any "departure" from the norm of the "existing conditions baseline" dictated by CEQA Guidelines section 15125, subdivision (a), should be accompanied by an explanation as to why "such an analysis would be uninformative or misleading to decision makers and the public." (*Neighbors for Smart Rail, supra,* 57 Cal.4th at p. 453.) As explained in more detail by Mr. Liddicoat, the growth factor applied by the City to adjust the 2011 data for 2013 conditions at all study intersections results in inaccurate and misleading peak-hour traffic volume estimates. The City must revise the traffic analysis based on existing actual physical conditions.

B. Payment of Fair-Share Mitigation Fees Do Not Sufficiently Mitigate the Identified Traffic Impact.

Many of the less-than-significant impact conclusions reached in Chapter 3.12 (Traffic Generation and Circulation) are unsupported by any substantial evidence. Most egregiously, the EIR fails to identify a traffic fee mitigation program into which any fees from the Project would be paid to ensure mitigation at the specific intersections or roadways identified to result in significant adverse impacts. Thus, there is no guarantee that the identified traffic improvements in MM T-1 and MM T-2 would ever be implemented and the impacts would be mitigated to less-than-significant levels. (*Endangered Habitats League, Inc. v. County of Orange* (2005) 131 Cal.App.4th 777, 785.)

The City is required to ensure "that measures to mitigate or avoid significant effects on the environment are fully enforceable through permit conditions, agreements, or other measures." (Pub. Resources Code, § 21081.6, subds. (a), (b); *Federation of Hillside & Canyon Assn. v. City of Los Angeles* (2000) 83 Cal.App.4th 1252, 1260-1261.) In other words, "feasible mitigation measures [must] actually be implemented as a condition of development." (*Anderson First Coalition v. City of Anderson* ("*Anderson First*") (2005) 130 Cal.App.4th 1173, 1186-1187.) A fair-share mitigation fee measure, moreover, must be "part of a reasonable, enforceable plan or program that is sufficiently tied to the actual mitigation of the traffic impacts at issue." (*Id.* at p. 1189; see also *Gentry v. City of Murrieta* (1995) 36 Cal.App.4th 1359, 1411 [payment of in-lieu fees does not constitute sufficient mitigation for a mitigated negative declaration where payment not tied to an adequate preservation program]; see also *Save Our Peninsula Comm. V. Monterey County Bd. of Supervisors* (2001) 87 Cal.App.4th 99, 140.) 62

62 cont.

With respect to the traffic impacts at study area intersections (Threshold T-2), the DEIR must be revised to reflect the standards set forth in *Anderson First.* In that case, the Third District Court of Appeal issued a writ of mandate requiring the City of Anderson to rescind its approval of a 26.5-acre shopping complex, including a Wal-Mart Supercenter, and certification of an EIR prepared for the project. The project was located roughly 600 feet west of Interestate-5 ("I-5) and, under cumulative plus project conditions in the year 2025, would require improvement of the I-5/Deschutes Road interchange.

Although the court in *Anderson First* focused on the mitigation of cumulative traffic impacts, the court's discussion of the EIR's inadequacies is directly relevant to the Project's mitigation of impacted intersections. Similar to the DEIR here, the EIR at issue in *Anderson First* concluded that the project's traffic impacts would be less than significant because it assumed, among other things, that an interchange improvement required by the project would be improved and the fair share mitigation fee was the project's contribution toward that improvement. In *Anderson First,* the mitigation measure stated the amount the city would be required to pay to participate in the fee mitigation program.

Petitioner claimed that the EIR improperly set forth a vague and speculative fair share traffic mitigation measure, and specifically attacked the language stating that the fair share payment will be paid "in the program to provide [those] improvements." (*Anderson First, supra,* 130 Cal.App.4th at p. 1188.) The Court of Appeal agreed, finding that in order to reach a less than significant conclusion, the fees must be tied to an identifiable and enforceable plan or program.

The *Anderson First* decision offers helpful guidance to the City for purposes of revising the analysis and mitigation measures in the DEIR, and re-evaluating its less-than-significant (LTS) conclusions. Thus, for a fair-share mitigation fee measure to be sufficient under CEQA, the measure must: 1) specify the total amount of the anticipated traffic improvement and the construction cost owed by the project applicant; 2) specify, if applicable, that the project applicant will also pay a percentage of the remaining reasonable costs of the improvement; and 3) make the fees part of a reasonable enforceable plan or program that is sufficiently tied to the actual mitigation of the traffic impacts at issue. (*Id.* at p. 1189.)

Although the DEIR omits this critical information, it nevertheless reaches LTS impact conclusions based on the payment of a future to-be-determined "fair share" fee that is not tied to an enforceable improvement plan. (DEIR, p. 3.12-95.) Specifically, the DEIR states that "[p]er the City of Irwindale *Traffic Study Guidelines,* the Proposed Project shall pay its fair share of improvements to eliminate the significant impacts identified in the *Traffic Impact Analysis.*" (DEIR, p. 3.12-95.) Neither the Project's EIR nor the City's guidelines specify whether a fee plan or program currently exists. We suspect it does not.

While the DEIR states that the "Project is anticipated to contribute to approximately 33% of the total new traffic at the intersection of I-605 SB Off-Ramp/Arrow Highway and I-605 NB Off-Ramp/Live Oak Avenue", the DEIR fails to state how much in fees the applicant would be required to pay to construct the improvements identified in MM T-1 and MM T-2. Adding insult to injury, the DEIR's discussion of the allegedly required fair share fees is included in the "Traffic Mitigation Program" section, but is not cemented in an actual mitigation measure. (See DEIR, pp. 3.12-95 to -96.) 62 cont.

To support the LTS conclusions based on the assumption that identified traffic improvements will be built, and built before the significant impacts of the Project are triggered, the DEIR must be revised to explain whether each specific improvement is already included in an adopted and enforceable transportation improvement plan or program, what the total cost of the improvement would be and what has been earmarked for the improvement, if any, and the cost owed by the applicant based on the percentage of anticipated Project trips. The DEIR must also discuss how the City would ensure funding of any delta in cost such that the improvement is brought on-line prior to the significant impacts being realized.

In addition to the aforementioned omissions from the DEIR, the DEIR's LTS conclusion of the Project's impacts to the freeway mainline segments and freeway merge/diverge ramp junctions under Threshold T-2 is unsupported by substantial evidence. The DEIR concludes that under the Existing Plus Project, Year 2016 Without Project, Year 2016 With Project, Year 2035 Without Project, and Year 2035 With Project scenarios, a number of mainline segments and ramp junctions would operate at an unacceptable level of service ("LOS") (i.e., LOS E) during peak hours. (DEIR, pp. 3.12-79 to 90.)

Despite this conclusion, the DEIR fails to identify any mitigation for the Project's impacts on the mainline segments and ramp junctions. To the extent that the City meant to identify as mitigation the applicant's payment of fees into a fee program, this approach would not reduce the impacts to less than significant. The DEIR's discussion of cumulative impacts to mainline segments and ramp junctions states that "[n]either Caltrans nor the State has adopted a fee program that can ensure that locally-contributed impact fees will be tied to improvements to freeway mainlines, and only Caltrans has the jurisdiction over mainline improvements." (DEIR, p. 3.12-99.) For that reason, the DEIR alludes to a significant and unavoidable impact under cumulative conditions. (DEIR, p. 3.12-99.) The DEIR must be revised to either identify feasible and enforceable mitigation measures to reduce the impacts under Threshold T-2 to mainline segments and ramp junctions, or conclude that these impacts are significant and unavoidable.

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C. The DEIR's Traffic Mitigation Measures Fail to Specifically Address Identified Impacts.

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Numerous tables in the DEIR identify that the Project conditions would result in an unacceptable LOS at certain study area intersections. The mitigation measures are not clear in stating that the measure actually addresses the identified impact. For example, Threshold T-2 proposes MM T-1 as mitigation to address the significant traffic impact at the I-605 NB Off-Ramp/Live Oak Avenue under the Existing Plus Project conditions. (DEIR, p. 3.12-67.) The impact discussion refers to Table 3.12-12, which shows the traffic impacts. Table 3.12-12 shows that significant traffic impacts would occur at the I-605 "NB Slip Off-Ramp to Live Oak Av. Eastbound" and "NB loop Off-Ramp to Live Oak Av. Westbound" intersections. (DEIR, p. 3.12-69.) But Table 3.12-12 does not show there would be a significant impact at the "I-605 NB Off-Ramp (NS)/Live Oak Av (EW)" intersection. Thus, it is not clear whether the DEIR identifies MM T-1 as mitigation for the identified impact. The same confusion exists in Table 3.12-13 (Interim Year 2016 Intersection Analysis Summary Comparison) and 3.12-14 (Long Range 2035 Intersection Analysis Summary Comparison). (DEIR, p. 3.12-73, 3.12-76.)

Similarly, MM T-1 listed in the Traffic Mitigation Program does not specify whether MM T-1 applies to all portions of the I-605/Live Oak Avenue intersection (i.e., I-605 NB Off-Ramp/Live Oak Ave., I-605 NB Slip Off-Ramp to Live Oak Ave, and NB loop Off-Ramp to Live Oak Av. Westbound). It is not clear whether this is an oversight in the DEIR, or whether MM T-1 is meant to apply to all impacts associated with the I-605/Live Oak Avenue intersection. Regardless, the DEIR must be clarified and revised to state whether MM T-1 addresses identified impacts to all portions of the I-605/Live Oak Avenue intersection under the various conditions.

D. The DEIR Fails to Identify Traffic Impacts Identified in the Traffic Mitigation Program.

CEQA requires an EIR to analyze impacts and adopt feasible mitigation measures that will substantially lessen or avoid the Project's potentially significant environmental impacts. (Pub. Resources Code, § 21002, 21081, subd. (a).) Here, the Traffic Mitigation Program section briefly identifies on-site improvements required to mitigate potential traffic impacts to Arrow Highway and Baldwin Park Boulevard from vehicles entering and exiting the site. (DEIR, p. 3.12-96.) Although the DEIR provides mitigation for these identified impacts (MM T-3 through T-7), Chapter 3.12 only acknowledges the impacts to driveways only in the discussion of the mitigation measures. (DEIR, pp. 3.12-96 to -98.) Vehicle queuing is discussed under Threshold T-2, but only in the context of the study intersections, not on-site driveways. (DEIR, p. 3.12-90.) These impacts to Project driveways must be identified in the DEIR's impacts analysis, and not solely in the Traffic Mitigation Program. Moreover, the EIR must also point to the threshold under which the impact is found significant and thus requiring mitigation. (*Lotus v. Dept. of Transportation* (2014) 223 Cal.App.4th 645, 654-55.)

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Because the DEIR fails to provide any analysis of identified impacts, the DEIR further fails to adequately analyze whether these mitigation measures would reduce the potentially significant impacts and to what degree. The DEIR merely includes a summary at the end of the traffic chapter stating that "there are no residual impacts after implementation of the identified Mitigation Program." (DEIR, p. 3.12-99.) Thus, the DEIR must be revised to include this information and analysis. 64 cont.

E. The DEIR Improperly Assigns Mitigation Measures to MM T-7.

The DEIR includes mitigation measures under MM T-7 that were not identified by the Traffic Impact Analysis. MM T-7 is proposed to mitigate the potential impact to Driveway 3 – Baldwin Park Boulevard/Live Oak Avenue. As part of this mitigation measure, the DEIR include six measures separated by bullet points. The Traffic Impact Analysis includes these same bullet points as mitigation for on-site vehicle queuing impacts at the Arrow Highway/Driveway 1 intersection. (DEIR Appendix G, p. 157.) It is unclear if this is just an oversight, or if the City had a reason to reject these recommended mitigation measures for Driveway 3. 65

F. The DEIR's Cumulative Analysis for Traffic Impacts is Deficient.

The DEIR's cumulative traffic impacts discussion suffers from two major problems. First, the DEIR's cumulative impacts discussion is scant. The DEIR's primary response is "Yes", and then goes on to state that the "Project is expected to contribute cumulative impacts to existing deficiencies or projected deficiencies" to a number of freeway mainline segments and freeway merge/diverge ramp junctions. (DEIR, p. 3.12-99.) This "analysis" of cumulative impacts is conclusory and is not supported by substantial evidence. Moreover, the DEIR fails to identify that the cumulative traffic impacts would be significant and unavoidable even though the DEIR includes language indicating the impacts are significant and unavoidable. (DEIR, p. 3.12-99.) "A cumulative impact analysis which understates information concerning the severity and significance of cumulative impacts impedes meaningful public discussion and skews the decision-maker's perspective concerning the environmental consequences of the project, the necessity for mitigation measures, and the appropriateness of project approval." (*Citizens To Preserve the Ojai v. County of Ventura* (1985) 176 Cal.App.3d 421, 431.) 66

G. Other Specific Inaccuracies and Omissions in the DEIR Relating to the Traffic Analysis.

General	If the Project Variant was approved, "the Applicant would need to hire sub-hauler vendors for all transfer truck operations, and the office/visitors' center would be incorporated into the main MRF/TS building." (DEIR, p. ES-4.) The DEIR fails to discuss the impact on traffic counts if third-party transfer trucks would be traveling to the project site to transfer waste materials to landfills as opposed to the proposed Project which assumes that transfer trucks would already be parked on-site after returning from

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	deliveries to landfills.
DEIR, p. 3.12-28	The DEIR states that inbound materials "would be recovered from cities such as the City of Irwindale, Covina, Monrovia, Monterey Park, Glendora, San Marino, Sierra Madres, West Covina, and additional nearby cities." The DEIR provides no substantial evidence to support this assertion about the Project's trip distribution.
DEIR, p. 3.12-41	The DEIR states that trip generation for the Project has been calculated based on data collected by Urban Crossroads, Inc. for similar existing land uses. The DEIR fails to explain what similar existing land uses were reviewed in making its underlying assumptions about trip generation. The DEIR also states that empirical data collected by Urban Crossroads, Inc. "at various transfer station locations in southern California were considered in the development of project trip generation rates." The DEIR states that the data is included as Attachment 1 within Appendix 1. Basic information about the various station locations should not be buried in the appendix and should be included in the DEIR itself.
DEIR, p. 3.12-85	A word appears to be missing from the following sentence (addition is in bold and underlined): The Long Range (2035) With Project freeway ramp analysis results presented in Table 3.12-36 indicate that no additional freeway ramp location is projected to operate at [*sic*] unacceptable level (LOS "E" or worse) during the peak hours, <u>in addition</u> to the locations previously identified under Long Range year (2035) With<u>**out**</u> Project conditions.

67 cont.

VI. The DEIR's List of Cumulative Projects is Insufficient.

Where an agency has prepared a list of cumulative projects pursuant to CEQA Guidelines section 15130, subdivision (b), CEQA requires that the list include "past, present, and probable future projects producing related or cumulative impacts[.]" (*Ibid.*) The DEIR's cumulative projects list in Chapter 3.0 (Environmental Setting and Impact Analysis) should also include the Azusa Land Reclamation project, an existing non-hazardous waste disposal facility located at 1211 W. Gladstone in the City of Azusa.

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VII. The DEIR Fails to Include a Range of Feasible Alternatives to the Project

CEQA requires that an EIR provide the decision makers and the public with a reasonable range of potentially feasible alternatives to the proposed Project. "[I]t is the policy of the state that public agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which would substantially lessen the significant environmental effects of such projects[.]" (Pub.

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69 cont.

Resources Code, § 21002.) To achieve this end, the Legislature directed EIRs to contain a detailed statement setting forth proposed project alternatives. (Pub. Resources Code, § 21100, subd. (b)(4).) Furthermore, an EIR must "describe a range of reasonable alternatives to the project . . . which would feasibly attain *most of the basic objectives* of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives." (CEQA Guidelines, § 15126.6, subd. (a) [emphasis added]; *Save Round Valley Alliance v. County of Inyo* (2007) 157 Cal.App.4th 1437, 1456-57.) "A potential alternative should not be excluded from consideration merely because it 'would impede to some degree the attainment of the project objectives, or would be more costly.'" (*Preservation Action Council v. City of San Jose* (2006) 141 Cal.App.4th 1336, 1354; Guidelines, § 15126.6, subd. (b); *Habitat and Watershed Caretakers v. City of Santa Cruz, et al.* (2013) 213 Cal.App.4th 1277, 1303-1304.)

Here, the DEIR's alternatives analysis fails to meet CEQA's requirements for a number of reasons. First, an alternative cannot be rejected for failing to meet *all* of the project objectives. The DEIR considered but rejected seven alternative locations "based in part on not meeting some or all of the Project Objectives[.]" (DEIR, p. 5.0-4.) Again, the EIR must discuss feasible alternatives that meet most of the basic project objectives. Thus, if any of the rejected alternatives would feasibly attain most of the basic project objectives but would avoid or substantially lessen any of the Project's adverse effects, the DEIR must include those as potentially feasible alternatives.

Second, some of the rejected alternatives fail to make a clear pronouncement regarding why the alternative does not meet most of the basic project objectives. For example, the DEIR rejects 242 Live Oak Avenue as a potentially feasible alternative because of "improper compaction" and "the need to relocate the existing 40+ tenants of the contractor yard[.]" (DEIR, p. 5.0-6.) It is not clear which aspects of the alternative site are inconsistent with the project objectives.

Third, the DEIR only analyzes two alternatives, a No Project alternative, and a Reduced Tonnage Capacity Alternative. Two is not a "range."

Not only does the DEIR fail for not including a range of alternatives, the No Project alternative is also inadequate for failing to describe what future uses could be built under the existing General Plan land use and Zoning designations and what effects would occur in the reasonably foreseeable future under a "No Build" scenario. Neither of these elements is described with respect to the No Project alternative. The No Project alternative only identifies that there would be no significant impacts to air quality, noise, or traffic, but does not state whether this alternative would result in other foreseeable impacts. (DEIR, p. 5.0-20.) This alternative is also cursory in its mention that there may be commercial uses that could be developed. (DEIR, p. 5.0-20.)

The only action alternative in the DEIR is the Reduced Tonnage Capacity alternative. This alternative would reduce the Project's capacity by 56 percent to 2,620

tpd from the 6,000 tpd capacity. (DEIR, p. 5.0-15.) This alternative would reduce traffic volumes, noise, and air emissions. (DEIR, p. 5.0-15.) The DEIR concludes, however, that the only action alternative "does not capture the full potential to recover materials from the local and regional waste stream prior to transfer and/or disposal, which will therefore need to occur at another site in the region." (DEIR, p. 5.0-19.) This statement remains to be proven, and assumes without substantial evidence that the full potential need for waste services is for a facility that can accept 6,000 tpd. The applicant's intent to divert part of its current operations to the proposed Project belies the DEIR's assertion that if this Project was not built, waste recovery would need to occur at other facilities. 69 cont.

The DEIR fails to analyze in good faith any other feasible action alternatives. For example, the DEIR should have also analyzed variations on the reduced tonnage capacity, including an alternative that accepts tonnage measured from somewhere between 56 percent and full capacity. Such an alternative could assume that no amount of waste would be diverted from the applicant's current operations. Other potentially feasible alternatives include excluding certain kinds of waste such as excluding green waste or self-haul waste. Such alternatives are "potentially feasible" absent substantial evidence in the record to the contrary.

Without a valid action alternative, the DEIR only analyzes one alternative, the No Project alternative. And with only one alternative, the DEIR fails to analyze a reasonable range of alternatives, thus violating CEQA. By extension, because the No Project alternative was determined to be the environmental superior alternative under CEQA Guidelines section 15126.6, subdivision (e)(2), the DEIR was left to pick by the default the only other analyzed alternative. The DEIR alternatives analysis must be revised to include a true "reasonable range" of alternatives that would avoid or substantially lessen the adverse impacts of the Project and circulated for additional public review and comment.

* * * * *

In conclusion, and pursuant to Public Resources Code section 21092.2, subdivision (a), please provide me with a copy of all future notices issued by the City in connection with the proposed Project; including notices of any public hearings before the City Planning Commission and City Council, and any notices issued under CEQA. As required by Section 21092.2, a copy of this letter is being provided to the City of Irwindale City Clerk. 70

Thank you in advance for your consideration of our comments and the comments from MRO included herein as Attachment A.

Very truly yours,

Andrea K. Leisy

Encl.
cc: Ms. Laura Nieto, City Clerk (lnieto@ci.irwindale.ca.us)
John Newell

Attachment A

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This attachment is referred to as comment 13-71.

May 1, 2014

Ms. Jeannie Lee
Remy Moose Manley LLP
555 Capitol Mall, Suite 800
Sacramento, California 95814

Subject: ***Irwindale Materials Recovery Facility and Transfer Station Project***
Review of Draft Environmental Impact Report
"Traffic Generation and Circulation" Analysis

Dear Ms. Lee:

As requested, MRO Engineers, Inc., has completed a review of the "Traffic Generation and Circulation" analysis completed with respect to the proposed Irwindale Materials Recovery Facility and Transfer Station project in Irwindale, California. The proposed project is the subject of a Draft Environmental Impact Report (DEIR) completed by the City of Irwindale in April 2014. The DEIR incorporates (as Appendix G) a traffic impact analysis prepared by Urban Crossroads, which was documented in a report dated February 27, 2014.

Our review focused on the technical adequacy of the "Traffic Generation and Circulation" section of the DEIR, including the detailed analysis procedures and conclusions documented there.

"Traffic Generation and Circulation" Analysis Review

Our review of the proposed project's "Traffic Generation and Circulation" analysis revealed a number of issues that should be addressed prior to certification of the environmental document by the City of Irwindale. These issues are summarized below.

1. ***Traffic Volume Data*** – According to the DEIR (page 3.12-19), the intersection turning movement counts employed in the traffic impact analysis were:

   > *. . . based upon manual AM and PM peak period turning movement counts conducted on* [sic] *June 2011, and adjusted for 2013 conditions based upon 24-hour roadway segment counts.*

   With regard to the specific adjustments applied to the June 2011 counts, the DEIR goes on to state:

   > *In addition, link volume growth comparison between 2011 and 2013 counts indicates a 1.018 growth factor (equivalent to 1.8%) during the AM peak hour. However, the PM peak hour comparison presents a decrease in traffic (approximately -4.0%) between 2011 and 2013 counts. Therefore, a final adjustment of 1.018 growth is applied to the 2011 AM peak hour volumes and 2011 PM peak hour counts were utilized as is to reflect 2013 conditions. 2011 and 2013 Link volume growth comparison results are included in Appendix C within EIR Appendix G.*

On the surface, this sounds reasonable and perhaps even conservative. However, closer inspection of the traffic volume comparison raises significant questions. As noted above, Appendix C of the Urban Crossroads traffic study includes information related to the traffic volume adjustment process. Of particular interest is a table entitled, "2013 vs 2011 Peak Hour Data Comparisons" (Urban Crossroads, pp. C-5 – C-6), which is included here as Attachment A. That table presents the results of the 2011 and 2013 traffic counts, as well as the percentage difference between the two. For ease of reference, the key information from that table is summarized in Table 1 below.

Table 1
2013 vs. 2011 Peak Hour Data Comparison Summary

Road Segment		Percent Difference (2013 Compared to 2011)					
		AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Arrow Highway							
A	West of Live Oak Ave.	6%	9%	8%	-5%	-2%	-4%
B	Avenida Barbosa to I-605	15%	-1%	11%	-3%	13%	7%
C	East of Live Oak Ln.	13%	10%	12%	1%	6%	4%
D	South of Rivergrade Rd.	12%	17%	13%	6%	10%	8%
E	East of Live Oak Ave.	-19%	-3%	-14%	0%	-8%	-5%
Live Oak Avenue							
F	Arrow Hwy. to I-605	-9%	27%	6%	-14%	-4%	-7%
G	East of Graham Access Rd.	-3%	-22%	-10%	-6%	-11%	-9%
H	Rivergrade Rd.to Arrow Hwy.	-28%	22%	-11%	-11%	-8%	-9%
I	East of Baldwin Park Blvd.	-5%	18%	2%	0%	-15%	-10%
Avenida Barbosa							
J	North of Arrow Hwy.	-12%	16%	9%	16%	-8%	7%
Rivergrade Road							
K	West of Arrow Hwy.	12%	-7%	1%	-2%	-6%	-4%
Baldwin Park Boulevard							
L	South of Live Oak Ave.	23%	2%	16%	-1%	-3%	-3%
All Segments Combined							
		-2.20%	8.40%	1.80%	-2.80%	-4.80%	-4.00%
Adjustment Factor		1.018			N/A		

Source: Urban Crossroads, *Athens-Irwindale Materials Recovery Facility and Transfer Station Traffic Impact Analysis*, February 27, 2014.

Focusing on the total values for each peak-hour period (rather than the "In" and "Out" values), in the AM peak hour, nine of the twelve locations demonstrated traffic growth between 2011 and 2013, ranging from one to sixteen percent. Four of the twelve locations had traffic volume increases in excess of ten percent. Only three locations had negative growth from 2011 to 2013. In the PM peak hour, traffic grew at four of the study locations, from four to eight percent. Reduced traffic volumes were found at eight locations.

These results clearly indicate that the application of an overall growth factor to all study intersections is inappropriate and results in inaccurate and misleading peak-hour traffic volume estimates. This is particularly pronounced in the AM peak hour, as one study location experienced almost nine times more growth than is represented by the factor used in the traffic analysis, and several others increased at a rate that was six-to-seven times higher than the growth factor employed in the analysis.

Of course, the correct approach to this issue is to collect new, up-to-date traffic data, rather than attempting to get by with old traffic count information. Accepted practice within the traffic engineering profession is to view three-year-old traffic volumes (i.e., year 2011 volumes) as obsolete. In fact, page 19 of the 2006 Institute of Transportation Engineers (ITE) document, *Transportation Impact Analyses for Site Development*, specifically states that ". . . traffic volume data should generally be no older than 1 year."

Moreover, the City of Irwindale *Policy Guidelines for Traffic Impact Reports* states that:

> *. . . traffic counts shall not be used if more than one year old.*

Similarly, the *2010 Congestion Management Program*, which was developed by the Los Angeles County Metropolitan Transportation Authority and also guides the traffic study requirements, states that:

> *Traffic counts must be less than one year old at the time the study is initiated.*

Because the existing traffic volumes represent the most critical input parameter in the intersection level of service calculation process, any inaccuracies in those values directly affect the validity of the level of service results. In short, to the extent that the existing peak-hour traffic volumes are inaccurate, the corresponding level of service results reported in the DEIR are invalid, and a misleading representation of the environmental setting and project-related impacts will be provided.

Further, because the future year traffic volumes for both the interim year (2016) and the long-range (2035) analyses were developed by applying growth factors to the existing traffic volumes, any shortcomings in the existing conditions data will adversely affect the validity of the future year information for both with and without project conditions.

In addition to the issues presented above, we note that the City of Irwindale *Policy Guidelines for Traffic Impact Reports* states that:

. . . counts should be collected while school is in session and/or close to summer tourist peak for typical weekday conditions.

Review of the data collection documentation presented in Appendix C of the Urban Crossroads report reveals that the peak-hour traffic volume counts were performed on June 15, 2011. To confirm whether this date was a school day, we contacted Ms. Bridget Swaim, Executive Assistant to the Superintendent of the Covina-Valley Unified School District, which serves Irwindale. According to Ms. Swaim, that date was not a school day. A copy of our e-mail correspondence is presented as Attachment B. Further, this date, which was shortly after the conclusion of the school year, does not fall "close to [the] summer tourist peak," which typically occurs later in the summer.

In summary, the existing conditions intersection traffic volume data used in the analysis has substantial deficiencies that affect all of the analysis scenarios. Consequently, updated peak hour traffic data must be obtained at the study intersections on a school day and the analysis must be revised using the current information. The modified traffic impact analysis should then be incorporated into a revised DEIR, which must be recirculated for further public review.

2. ***Traffic Projections*** – As described above, the traffic projections for the years 2016 and 2035 are deficient, as they are based on inaccurate existing conditions data. This is not the only deficiency that applies to this information, however.

   As described in the DEIR (p. 3.12-43):

   For Interim Year (2016) Without Project conditions, an ambient growth rate of 2.0% per year (consistent with City of Irwindale traffic study guidelines) was applied to the existing (2013) [traffic volumes] for three years (a total background growth of 6%) <u>in addition</u> to the cumulative project/other development data . . .

   DEIR p. 3.12-55 describes the derivation of the long-range traffic volumes for the year 2035:

   Per Appendix D in the Los Angeles County 2010 CMP [Congestion Management Program], the background traffic growth estimates for Horizon Year must use the generalized growth factor (at a minimum) shown in Exhibit D-1 of the LA CMP. Based on Exhibit D-1 of the LA CMP, a general traffic volume growth factor of 1.106 is used for cities (including Irwindale) within the Regional Statistical Area (RSA) 26 for Horizon Year 2035. Therefore, Long Range baseline volumes were developed by applying a general growth factor of 1.106 to existing volumes to reflect 2035 conditions, as identified in the Los Angeles County CMP, in addition to the cumulative project/other development data.

   The key phrase in this discussion is "at a minimum," which also occurs on page D-3 in the CMP document:

   At a minimum, horizon year background traffic growth estimates must use the generalized growth factors shown in Exhibit D-1.

Clearly, these generalized growth factors are not intended as default values to be applied indiscriminately. The CMP goes on to refer to other potential methodologies that are available for estimating future traffic volumes.

To recap the traffic forecasting process documented in the DEIR traffic analysis:

- Year 2016 traffic volumes were projected using a 6.0 percent growth factor (i.e., the estimated existing (2013) volumes were multiplied by 1.06); and
- Year 2035 traffic volumes were projected using a 10.6 percent growth factor (i.e., the estimated existing (2013) volumes were multiplied by 1.106).

Thus, between 2016 and 2035, traffic in Irwindale is expected to grow by only 4.6 percent (i.e., the difference between 10.6 percent and 6.0 percent). This equates to an annual average growth rate of 0.24 percent, which is dramatically less than the 2.0 percent per year growth rate anticipated between 2013 and 2016, based on City of Irwindale guidelines. In fact, these numbers suggest that the total traffic growth of 6.0 percent during the three-year "Interim" period from 2013 until 2016 will substantially exceed the total growth of 4.6 percent during the 19-year "Long Range" period from 2016 until 2035.

The differences between the Interim and Long-Range traffic forecasting parameters simply defy logic. Why would traffic grow by 2.0 percent between 2015 and 2016, but by only 0.24 percent from 2016 until 2017? And if the 2.0 percent per year rate used for the Interim period was used because it is "consistent with City of Irwindale traffic study guidelines," why is that only true for the Interim period and not the Long Range period?

Clearly, additional thought and effort need to be applied to derivation of the future year traffic volume estimates, particularly for the Long Range (2035) time frame. To ensure consistency with the City's guidelines, a 2.0 percent per year growth factor should be applied for the entire period from 2013 until 2035. If another approach is used, it must provide logical, reasonable results, and it must be fully documented and justified. The corrected traffic projections must then be incorporated into the level of service analyses, with the results documented in a revised DEIR that will be subject to further public review.

3. ***Level of Service Calculation Methodology*** – The City of Irwindale *Policy Guidelines for Traffic Impact Reports* (p. 9) requires that:

> *The traffic study shall identify and analyze all the impacts to the operational conditions (LOS) of the transportation facilities in the project in accordance with the current* Highway Capacity Manual *(HCM).*

The current (year 2010) version of the *Highway Capacity Manual* (HCM 2010) was released on April 11, 2011. It is a publication of the Transportation Research Board (TRB), one of the entities within the National Academy of Sciences. The current (fifth) edition of the HCM follows previous editions completed in 1965, 1985, 1997, and 2000.

According to the "Scoping Letter" presented in Appendix A of the Urban Crossroads report, the traffic study was initiated in March 2013. That scoping document is dated May 6, 2013, but it

refers to a conference call conducted on March 6, 2013 for the purpose of discussing the project and a previous analysis for the proposed project.

Thus, the DEIR traffic study was initiated approximately two years after the current (2010) version of the *Highway Capacity Manual* became widely available. Despite this, the traffic analysis was performed using procedures documented in the previous (year 2000) version of the *Highway Capacity Manual*. This is documented on p. 3.12-6 of the DEIR:

> *The technical guide used in the* Traffic Impact Analysis *for the evaluation of traffic operations is the* 2000 Highway Capacity Manual *(HCM) (Transportation Research Board Special Report 2009).*

We also note that the intersection level of service calculations were performed using the *Synchro 8* software, which was specifically developed for the purpose of analyzing intersections under the 2010 version of the HCM (although it also presents reports reflecting the year 2000 version of the HCM).

The failure to use the latest version of the *Highway Capacity Manual* represents a violation of the City of Irwindale procedures. To ensure the accuracy of the DEIR traffic analysis, as well as consistency with City procedures and policies, the intersection level of service calculations must be performed using the current, year 2010 version of the *Highway Capacity Manual*. After the LOS calculations are corrected, the DEIR will need to be recirculated for further public review.

4. ***Determination of Significant Impacts*** – The DEIR takes an unusual approach to the analysis of intersection level of service (LOS), in that calculations were performed using two methodologies: the *Highway Capacity Manual* (HCM) method and the Intersection Capacity Utilization (ICU) method. Although it clearly creates the potential for confusion (since the two methods might provide differing, conflicting results), this was apparently done to satisfy both the City of Irwindale guidelines (which require use of the HCM procedures) and the Los Angeles County Metropolitan Transportation Authority *2010 Congestion Management Program*, which requires use of the ICU method, but does not allow use of the HCM method. We also note that DEIR p. 3.12-8 says:

> *It should be noted that the Synchro v/c output results are discussed in the City of Irwindale Policy Guidelines for Traffic Impact Reports under Section B (page insert) and indicated that the v/c [volume/capacity] ratio results in the Synchro are based on ICU and should be presented in addition to delay information. Therefore, consistent with the City's guidelines, both the Synchro v/c ratio (ICU) and delay results are presented in this report.*

The "page insert" referred to above includes the following statement regarding the *Synchro* software, particularly with respect to ICU and V/C ratios:

> *In addition, [Synchro] provides a V/C ratio based on intersection capacity utilization (ICU) that is more meaningful when identifying a project's impact and developing mitigation measures.*

Despite this, the DEIR traffic analysis bases its conclusions regarding project-related impacts solely on the HCM analysis results; it totally ignores the ICU analysis results. In fact, DEIR p. 3.12-71 states (under the heading "Interim Year (2016) With Project):

> *The HCM results present a more accurate representation of the intersection operational level.*

An identical sentence appears on DEIR p. 3.12-78 in the section headed "Long Range (2035) With Project."

This is, of course, a conundrum. The ICU method "is more meaningful when identifying a project's impact," and yet the HCM results "present a more accurate representation of the intersection operational level." The DEIR's approach to resolving this was to consider only the HCM results when determining significant impacts, and ignore the ICU results. As will be described further in a later comment, this approach has the effect of failing to identify a number of significant impacts that were revealed through the ICU intersection analyses.

To ensure that the DEIR traffic analysis is thorough, as well as consistent with City of Irwindale and Los Angeles County 2010 CMP requirements, the determination of significant intersection impacts must be based on both level of service calculation methodologies. After the significance determinations are corrected, the DEIR will need to be recirculated for further public review.

5. ***Incorrect ICU Analysis*** – As described above, the DEIR traffic impact analysis evaluated project-related intersection impacts using two distinct methodologies, including the Intersection Capacity Utilization or ICU method. As also noted above, use of the ICU method is mandated by both the City of Irwindale and the Los Angeles County 2010 CMP.

   The 2010 CMP document contains specific guidance regarding the parameters to be incorporated into a proper ICU calculation. One of the key components of such a calculation is the assumed capacity value for through and turn lanes. According to page A-3 of the 2010 CMP document, the mandated capacity value is 1,600 vehicles per lane per hour for all through and turn lanes and 2,880 vehicles per lane for dual turn lanes. In contrast, DEIR p. 3.12-8 says that:

   > *A saturation flow rate* [i.e.,, capacity] *of 1,900 vehicles per hour of green (vphg) per lane is utilized in each scenario for HCM calculation purposes.*

   Because the ICU results were taken from the HCM calculations (performed using *Synchro 8),* the HCM capacity assumption of 1,900 vehicles per lane per hour of green also applies to the ICU calculations. This assumption is nineteen percent higher than the value allowed in the 2010 CMP. Consequently, each of the V/C ratios derived from the ICU analyses is nineteen percent lower than if it had been determined using the prescribed capacity value.

   Therefore, the ICU analyses presented in the DEIR present an inaccurate and unrealistically low volume/capacity ratio for each of the study intersections. In some cases, this will result in inaccurate and overly-optimistic LOS findings, which could potentially result in understating the significant impacts of the proposed project.

6. ***Incorrect Treatment of Pass-by Trips*** – The trip generation estimates documented in DEIR Table 3.12-11 (DEIR, p. 3.12-42) include adjustments for "pass-by" trips at the proposed convenience market. Pass-by trips are defined as trips that are already on the adjacent roadways, with the trip to the project site being an intermediate stop as part of another trip. As defined in the *Trip Generation Handbook – An ITE Recommended Practice* (Institute of Transportation Engineers, Second Edition, June 2004), which presents the current state-of-the-practice with regard to pass-by trips, "Pass-by trips are attracted from traffic passing the site *on an adjacent street* or roadway that offers direct access to the generator." The classic example of a pass-by trip is stopping for a gallon of milk on the way home from work. In that example, the trip from work to home represents the primary trip purpose and the shopping trip is the pass-by trip.

   DEIR Table 3.12-11 describes the pass-by trip adjustment associated with the proposed convenience market. In that table, the pass-by trips have been deducted from the overall project trip generation estimate. However, to suggest that pass-by trips result in a reduction in the project's trip generation is incorrect, as the total volume of traffic generated by the proposed project (including both pass-by and primary trips) will travel through the project's driveways, regardless of the pass-by percentage. When incorporating a pass-by trip adjustment into a traffic impact analysis, only the method of assigning those trips to the roadway system differs from the assignment of non-pass-by (i.e., "primary") trips; the number of project-related trips assigned to the roads is unchanged (i.e., no reduction occurs).

   According to DEIR Table 3.12-11, 63 percent of the convenience market trips have been defined as pass-by trips, based on information in the *Trip Generation Handbook*. The same factor has been applied to the AM peak hour, the PM peak hour, and on a daily basis (even though the ITE *Trip Generation Handbook* includes no information regarding daily pass-by trip rates). The specific factor applied is the average pass-by rate in the AM peak period, based on nine studies documented in the *Trip Generation Handbook*. The average pass-by rate in the PM peak period (as shown in the *Trip Generation Handbook*) is 66 percent, so it would appear that the magnitude of the peak-hour pass-by trip adjustment used in the analysis is reasonable. Because of the lack of pertinent data, it is impossible to know if the daily pass-by trip adjustment is reasonable.

   Based on application of this factor, in the AM peak hour, 62 trips were eliminated from the analysis (i.e., 8.5 percent of the proposed project's gross trip generation), and in the PM peak hour 77 trips were deducted (i.e., 10.4 percent of the proposed project's total trips). Over the course of a typical weekday, the project trip generation estimate ignores 1,279 project-generated trips, which represent 13.3 percent of the project's gross trip generation.

   In this case, because the volume of project-generated traffic assigned to the project's driveway intersections (and, in particular, the driveways serving the convenience market) was inappropriately reduced, the level of service results for those locations are inaccurate and the impacts associated with the proposed project are understated. Similarly, the queue length estimates developed for the driveway intersections understate the number of stopped vehicles to be expected at those locations. We recommend that the analyst refer to pages 31 – 32 of the ITE *Trip Generation Handbook,* which sets forth a detailed procedure for the assignment of pass-by trips. In addition, the analysis of the driveway intersections must be corrected, with the modified results documented in a revised DEIR.

7. ***Incorrect Application of Caltrans Standard of Significance at Ramp Intersections*** – The standard of significance employed in the DEIR traffic analyses with regard to Caltrans facilities is summarized on DEIR page 3.12-11 under the heading "Definition of Deficiency," as follows:

> *For State Highway facilities, the Caltrans* Guide for the Preparation of Traffic Impact Studies *(December 2002) states that Caltrans endeavors to maintain a target LOS at the transition between LOS "C" and LOS "D". . .*

This statement appropriately paraphrases the level of service guideline presented in the Caltrans document – i.e., the transition between LOS C and LOS D. In other words, Caltrans considers LOS C to be acceptable and LOS D to be unacceptable.

However, the DEIR traffic impact analysis incorrectly interprets the Caltrans guideline, as follows (DEIR, p. 3.12-11):

> *. . . for the purpose of this report, LOS "D" is used as the maximum acceptable threshold for study ramp intersections and freeway mainline and ramp segments.*

This obviously conflicts with the stated operational standard established by Caltrans, the agency that owns and controls these roadways.

Also on DEIR p. 3.12-11, under the heading "Definition of Significant Impact," the following statement is found:

> *When a signalized intersection operates at mid-range LOS "E" (67.5 seconds) for State Highways or better under existing or future baseline conditions, and the addition of project trips degrades the intersection operations to 67.6 seconds (LOS "E") or worse (LOS "F"). The project mitigation should bring the facility to operate at mid-range LOS "E" at minimum.*

This statement indicates that operation at LOS E is acceptable on Caltrans facilities, as long as the intersection or freeway facility operates in the upper half of the LOS E delay range (i.e., with an average delay value between 55.01 seconds per vehicle and 80.00 seconds per vehicle). This is incorrect and also violates the established Caltrans operational standard stated above.

Application of the Caltrans standard presented above (i.e., the threshold between LOS C and LOS D) to the freeway ramp intersections under Existing Plus Project conditions would result in significant impacts at the locations presented in Table 2 below, based on information presented in DEIR Table 3.12-12 (DEIR, p. 3.12-68 through p. 3.12-70).

As shown, five ramp intersections are projected to operate at an unacceptable LOS D or worse under Existing Plus Project conditions. Only two of those locations are designated as having significant impacts in the DEIR, however. The three ramp intersections with significant impacts that were ignored in the DEIR are listed below and are highlighted in Table 2:

- I-605 Southbound Off-ramp/Arrow Highway,
- I-605 Southbound On-ramp/Live Oak Avenue, and

- I-605 Northbound Off-ramp/Live Oak Avenue.

Two significance considerations apply to these three locations. First, they all are projected to operate at LOS D, which falls short of the designated Caltrans operational standard. Second, the unacceptable level of service results at two of the three locations are based on the ICU methodology, which the DEIR inappropriately ignores when identifying significant impacts. At the third location, (I-605 Northbound Off-ramp/Live Oak Avenue), LOS D was found using the HCM methodology, which served as the sole basis for designation of significant impacts in the DEIR.

We also note that at one location (I-605 Northbound Off-ramp/Live Oak Avenue), the unacceptable LOS D operation is expected to occur even after the completion of improvements, including installation of a traffic signal.

Table 2
Selected Freeway Ramp Intersection Level of Service Summary
Existing Plus Project Conditions[1]

	AM Peak Hour				PM Peak Hour			
	HCM Method[2]		ICU Method[3]		HCM Method		ICU Method	
Intersection	LOS[4]	Signif. Impact?	LOS	Signif. Impact?	LOS	Signif. Impact?	LOS	Signif. Impact?
I-605 SB Off-ramp/Arrow Hwy.	C	No	***D***	***Yes***[5]	B	No	A	No
I-605 SB On-ramp/Live Oak Ave.	B	No	***D***	***Yes***[5]	B	No	***D***	***Yes***[5]
I-605 NB Off-ramp/Live Oak Ave.	C (B)[6]	No (No)	NA (***D***)	NA (***Yes***)[5]	***D*** (B)	***Yes***[5] (***No***)	NA (B)	NA (No)
I-605 NB Slip Off-ramp/EB Live Oak Ave.	C	No	NA	NA	**F**	**Yes**[7]	NA	NA
I-605 NB Loop Off-ramp/WB Live Oak Ave.	**F**	**Yes**[7]	NA	NA	**F**	**Yes**[7]	NA	NA

Notes:
1 Source: DEIR Table 3.12-12 (DEIR, p. 3.12-68 through p. 3.12-70
2 *Highway Capacity Manual* (Transportation Research Board, 2000).
3 Intersection Capacity Utilization.
4 Level of service.
5 ***Not identified as a significant impact in the DEIR.***
6 Values in parentheses are designated as "With Improvements"
7 **Identified as a significant impact in the DEIR.**

Similar issues were found for Interim Year (2016) conditions, as documented in DEIR Table 3.12-13 (DEIR, p. 3.12-72 through p. 3.12-74). Table 3 below summarizes the freeway ramp intersections having significant impacts under "2016 With Project" conditions, based on the Caltrans LOS C/D threshold as well as full consideration of the analysis results using both HCM and ICU methodologies. Again, the DEIR failed to acknowledge the following three ramp intersections, which are projected to operate at unacceptable levels of service:

- I-605 Southbound Off-ramp/Arrow Highway,
- I-605 Southbound On-ramp/Live Oak Avenue, and
- I-605 Northbound Off-ramp/Live Oak Avenue.

The findings are largely similar to those described above for Existing Plus Project conditions, although at two of the ramp intersections that the DEIR failed to identify as having significant impacts (I-605 Southbound Off-ramp/Arrow Highway and I-605 Southbound On-ramp/Live Oak Avenue), the ICU analysis indicated operation at LOS E (rather than the LOS D finding under Existing Plus Project conditions).

Table 3
Selected Freeway Ramp Intersection Level of Service Summary
Interim Year (2016) Plus Project Conditions[1]

	AM Peak Hour				PM Peak Hour			
	HCM Method[2]		ICU Method[3]		HCM Method		ICU Method	
Intersection	LOS[4]	Signif. Impact?	LOS	Signif. Impact?	LOS	Signif. Impact?	LOS	Signif. Impact?
I-605 SB Off-ramp/Arrow Hwy.	C	No	***E***	***Yes***[5]	B	No	A	No
I-605 SB On-ramp/Live Oak Ave.	C	No	***E***	***Yes***[5]	B	No	***E***	***Yes***[5]
I-605 NB Off-ramp/Live Oak Ave.	C (C)[6]	No (No)	NA (***D***)	NA (***Yes***)[5]	***E*** (C)	***Yes***[5] (No)	NA (C)	NA (No)
I-605 NB Slip Off-ramp/EB Live Oak Ave.	***D***	***Yes***[5]	NA	NA	**F**	**Yes**[7]	NA	NA
I-605 NB Loop Off-ramp/WB Live Oak Ave.	**F**	**Yes**[7]	NA	NA	**F**	**Yes**[7]	NA	NA

Notes:
1 Source: DEIR Table 3.12-13 (DEIR, p. 3.12-72 through p. 3.12-74)
2 *Highway Capacity Manual* (Transportation Research Board, 2000).
3 Intersection Capacity Utilization.
4 Level of service.
5 ***Not identified as a significant impact in the DEIR.***
6 Values in parentheses are designated as "With Improvements"
7 **Identified as a significant impact in the DEIR.**

Table 4 below presents similar information for Long Range (year 2035) conditions, as excerpted from DEIR Table 3.13-14 (DEIR, p. 3.12-75 through p. 3.12-77). In this time frame, due to the projected deterioration in traffic operations, only one additional ramp intersection with a significant impact was identified (i.e., I-605 Southbound On-ramp/Live Oak Avenue). All of the other four locations were identified as having significant impacts due to projected operation at LOS F. Interestingly, DEIR Table 3.13-14 showed the intersection of I-605 Southbound Off-ramp/Arrow Highway as having a significant impact based on the ICU result for the AM peak hour (although the HCM LOS was also unacceptable in this time period).

Table 4
Selected Freeway Ramp Intersection Level of Service Summary
Long Range (2035) Plus Project Conditions[1]

	AM Peak Hour				PM Peak Hour			
	HCM Method[2]		ICU Method[3]		HCM Method		ICU Method	
Intersection	LOS[4]	Signif. Impact?	LOS	Signif. Impact?	LOS	Signif. Impact?	LOS	Signif. Impact?
I-605 SB Off-ramp/Arrow Hwy.	**F**	**Yes**[7]	**F**	**Yes**[7]	B	No	B	No
I-605 SB On-ramp/Live Oak Ave.	***D***	***Yes***[5]	***E***	***Yes***[5]	C	No	***E***	***Yes***[5]
I-605 NB Off-ramp/Live Oak Ave.	C (C)[6]	No (No)	NA (***E***)	NA (***Yes***)[5]	**F** (C)	**Yes**[7] (No)	NA (C)	NA (No)
I-605 NB Slip Off-ramp/EB Live Oak Ave.	***D***	***Yes***[5]	NA	NA	**F**	**Yes**[7]	NA	NA
I-605 NB Loop Off-ramp/WB Live Oak Ave.	**F**	**Yes**[7]	NA	NA	**F**	**Yes**[7]	NA	NA

Notes:
1 Source: DEIR Table 3.13-14 (DEIR, p. 3.12-75 through p. 3.12-77)
2 *Highway Capacity Manual* (Transportation Research Board, 2000).
3 Intersection Capacity Utilization.
4 Level of service.
5 ***Not identified as a significant impact in the DEIR.***
6 Values in parentheses are designated as "With Improvements"
7 **Identified as a significant impact in the DEIR.**

In summary, the level of service summary tables presented in the DEIR fail to accurately reflect the Caltrans LOS C/D standard for ramp intersection operation. Those tables identify unacceptable LOS by denoting the delay and level of service values in bold font. However, only intersection results of worse than mid-range LOS E or LOS F are so presented. Intersections found to operate at either LOS D or above mid-range LOS E are not indicated as being deficient. This is inaccurate and misleading and must be corrected.

8. ***Incorrect Application of Caltrans Standard of Significance at Freeway Segments and Ramp Junctions*** – As described above, the DEIR failed to identify significant impacts at several freeway ramp intersections due to misinterpretation of the Caltrans operational standard. That standard, as set forth in the Caltrans *Guide for the Preparation of Traffic Impact Studies* (December 2002) sets the threshold between LOS C and LOS D as the minimum acceptable operation. That is, according to Caltrans, LOS C is acceptable and LOS D is unacceptable operation on its facilities.

   This same issue exists with respect to the freeway mainline segments and the merge/diverge areas associated with freeway on- and off-ramps. Again the Caltrans LOS C/D standard was ignored in favor of a much more lenient standard.

   Attachment C contains copies of the following tables from the DEIR, which address "with project" LOS results for the three time frames analyzed in the traffic analysis:

   - Table 3.12-17 – Existing Plus Project Conditions Basic Freeway Segment Analysis Summary (DEIR, p. 3.12-83),
   - Table 3.12-18 – Existing Plus Project Conditions Basic Freeway Ramp Junction Merge/Diverge Analysis Summary (DEIR, p. 3.12-83),
   - Table 3.12-21 – Interim Year (2016) With Project Conditions Basic Freeway Segment Analysis Summary (DEIR, p. 3.12-86),
   - Table 3.12-22 – Interim Year (2016) With Project Conditions Basic Freeway Ramp Junction Merge/Diverge Analysis Summary (DEIR, p. 3.12-86),
   - Table 3.12-25 – Long Range (2035) With Project Conditions Basic Freeway Segment Analysis Summary (DEIR, p. 3.12-89), and
   - Table 3.12-26 – Long Range (2035) With Project Conditions Basic Freeway Ramp Junction Merge/Diverge Analysis Summary (DEIR, p. 3.12-89).

   Those tables have been manually marked-up to illustrate the additional freeway segments and ramp junction locations where project-related significant impacts are projected to occur. Specifically, study locations that are projected to operate at LOS D have been highlighted in pink. Each of these locations will operate at an unacceptable level of service under the Caltrans guidelines. None of these locations has been identified as having a significant impact in the DEIR, however.

   Clearly, the analysis of the Caltrans-controlled freeway segments and freeway ramp junctions within the study area is deficient. Although the DEIR identifies a small number of locations as having significant impacts, a sizable number of other locations has been ignored. This analysis must be revised to reflect correct application of the Caltrans operational standard to I-605 and I-210 throughout the study area. The revised DEIR will then need to be recirculated for further public review.

9. ***Failure to Consider the Safety Effects of Truck Traffic*** – As described in the DEIR, the site of the proposed project is within an industrial area, and the road system in the vicinity of the proposed project carries substantial truck traffic. Further, the proposed project is estimated to

add a substantial volume of heavy trucks to the study area road system. Despite this, the "Traffic Generation and Circulation" section of the DEIR includes no discussion or analysis of auto-truck conflicts and the potential safety issues associated with mixing automobile traffic with a considerable amount of heavy-vehicle traffic. This is a substantial deficiency in the DEIR, given the nature of nearby land uses.

10. ***Failure to Identify Significant Unavoidable Impacts*** – Section 3.12.8 – Impact Analysis and Mitigation Program within the "Traffic Generation and Circulation" chapter of the DEIR presents the mitigation measures needed to offset the significant traffic impacts identified in connection with the proposed project. According to the DEIR, implementation of these mitigation measures will reduce the significant impacts to less-than-significant. Study locations identified as having significant impacts include the following:

Study Intersections

- I-605 Northbound Off-ramp/Live Oak Avenue (Existing Plus Project, Interim Year (2016) With Project, and Long Range (2035) With Project); and
- I-605 Southbound Off-ramp/Arrow Highway (Long Range (2035) With Project).

Freeway Mainline

- I-210 Westbound Mainline, West of Irwindale Avenue Westbound On-ramp (Interim Year (2016) With Project, Long Range (2035) With Project);
- I-210 Eastbound Mainline, East of Irwindale Avenue Eastbound Off-ramp (Interim Year (2016) With Project, Long Range (2035) With Project);
- I-210 Eastbound Mainline, East of Irwindale Avenue Eastbound Off-ramp (Interim Year (2016) With Project, Long Range (2035) With Project); and
- I-210 Westbound Mainline, East of Irwindale Avenue Westbound Off-ramp (Interim Year (2016) With Project, Long Range (2035) With Project).

Freeway Merge/Diverge Ramp Junctions

- I-605 Northbound – Live Oak Avenue Off-ramp (Existing Plus Project, Interim Year (2016) With Project, Long Range (2035) With Project); AND
- I-210 Westbound – Irwindale Avenue Off-ramp (Interim Year (2016) With Project, Long Range (2035) With Project).

Recommended mitigation measures at the two study intersections include the following:

- MM T-1: I-605 Northbound Off-ramp/Live Oak Avenue (Existing Plus Project, Interim Year (2016) With Project, and Long Range (2035) With Project) – Install a traffic signal and add or modify various traffic lanes; and

- MM T-2: I-605 Southbound Off-ramp/Arrow Highway (Long Range (2035) With Project) – Construct a second southbound left-turn lane.

The DEIR incorrectly states that implementation of these measures will reduce the project-related impacts at these two intersections to a less-than-significant status. Section 3.12.9 – Residual Impacts After Mitigation Program (DEIR, p. 3.12-99) specifically states:

> *Implementation of the recommendations referred to within this EIR as the traffic Mitigation Program, would reduce potential transportation and circulation impacts to a less than significant level. Under the four (4) scenarios of traffic conditions presented and analyzed in the* Traffic Impact Analysis*, the study area intersections are projected to operate at acceptable levels of service during peak hours [except where noted as an existing deficiency]. Therefore, there are no residual impacts after implementation of the identified Mitigation Program.*

In fact, because these are both freeway ramp terminus intersections, they are under Caltrans jurisdiction. In both cases, the DEIR (p. 3.12-67 and p. 3.12-78) acknowledges this fact, stating:

> *These improvements are generally to be constructed on Caltrans property.*

As such, neither the project proponent nor the City of Irwindale as Lead Agency has control over whether these improvements are ever completed. Consequently, the significant impacts at both intersections in the time frame specified will remain ***Significant and Unavoidable***.

No mitigation measures are recommended with respect to the project's significant impacts on the I-605 or I-210 freeway mainline or any of the freeway ramp junction locations. Again, these facilities are under the jurisdiction of Caltrans, so that neither the project proponent nor the City of Irwindale as Lead Agency has control over any improvements that might be identified for any of the freeway facilities. The I-605 and I-210 freeway mainline and freeway ramp junction impacts must all be identified as ***Significant and Unavoidable***.

The DEIR also seems to suggest that payment of a fair share contribution toward mitigation of long range traffic impacts would be sufficient to meet the proposed project's obligations (DEIR, p. 3.12-95):

> *Per the City of Irwindale* Traffic Study Guidelines*, the Proposed Project shall pay its fair share of improvements to eliminate the significant impacts identified in the* Traffic Impact Analysis.

However, the DEIR (p. 3.12-99) also acknowledges that:

> *Neither Caltrans nor the State has adopted a fee program that can ensure that locally-contributed impact fees will be tied to improvements to freeway mainlines, and only Caltrans has the jurisdiction over mainline improvements. Because Caltrans has exclusive control over state highway improvements, ensuring that fair share contributions to mainline improvements are actually part of a program tied to implementation of mitigation is within the jurisdiction of Caltrans.*

In short, there is no guarantee that any of the recommended improvements to the freeway system will ever be achieved. Further, payment of a fair share contribution will have no effect in terms of improving either the roadway system or traffic operations in the vicinity of the proposed project.

The Mitigation Program presented in the DEIR is highly deficient, as the mitigation measures included in the program may never occur and, further, no mitigation of any sort has been proposed for any of the freeway system impacts. The DEIR must be modified to include a thorough set of mitigation measures and to describe accurately the residual effect of implementing any identified mitigation measures.

CONCLUSION

Our review of the Draft Environmental Impact Report prepared for the proposed Irwindale Materials Recovery Facility and Transfer Station project in Irwindale, California revealed a number of issues potentially affecting the validity of the conclusions and recommendations presented in that document. Further, our review indicates that the proposed project may have additional significant impacts on the environment beyond those identified in the DEIR, particularly with respect to intersection and freeway level of service. These issues must be addressed prior to approval of the proposed project and its related environmental documentation.

We hope this information is useful. If you have questions concerning anything presented here, please feel free to contact me at (916) 783-3838.

Sincerely,

MRO ENGINEERS, INC.

Neal K. Liddicoat, P.E.
Traffic Engineering Manager

ATTACHMENT A

2013 vs 2011 Peak Hour Data Comparisons

(Source: Urban Crossroads, *Athens-Irwindale Materials Recovery Facility and Transfer Station Traffic Impact Analysis*, February 27, 2014)

2013 vs 2011 PEAK HOUR DATA COMPARISONS

ID	SEGMENT LOCATION	AM			PM		
		IN	OUT	TOTAL	IN	OUT	TOTAL
	ARROW HIGHWAY						
	West of Live Oak Av.						
	Tube Counts 2013	1,103	2,356	3,459	2,089	1,181	3,270
A	Peak Hour 2011 - (Live Oak Av. / Arrow #1)	1,037	2,155	3,192	2,193	1,205	3,398
	Delta	66	201	267	-104	-24	-128
	%	6%	9%	8%	-5%	-2%	-4%
	Between Avenida Barbosa & I-605						
	Tube Counts 2013	1,918	434	2,352	532	916	1,448
B	Peak Hour 2011 - (Avenida Barbosa / Arrow #2)	1,674	438	2,112	547	810	1,357
	Delta	244	-4	240	-15	106	91
	%	15%	-1%	11%	-3%	13%	7%
	East of Live Oak Ln.						
	Tube Counts 2013	1,890	570	2,460	626	999	1,625
C	Peak Hour 2011 - (I-605 NB/Live Oak Ln. / Arrow #4)	1,675	520	2,195	617	939	1,556
	Delta	215	50	265	9	60	69
	%	13%	10%	12%	1%	6%	4%
	South of Rivergrade Rd.						
	Tube Counts 2013	1,746	351	2,097	473	905	1,378
D	Peak Hour 2011 - (Arrow / Rivergrade #5)	1,559	300	1,859	446	826	1,272
	Delta	187	51	238	27	79	106
	%	12%	17%	13%	6%	10%	8%
	East of Live Oak Av.						
	Tube Counts 2013	1,983	851	2,834	1,048	2,013	3,061
E	Peak Hour 2011 - (Maine / Arrow #15)	2,436	875	3,311	1,050	2,180	3,230
	Delta	-453	-24	-477	-2	-167	-169
	%	-19%	-3%	-14%	0%	-8%	-5%
	LIVE OAK AVENUE						
	Between Arrow Hwy. & I-605						
	Tube Counts 2013	1,086	1,009	2,095	742	1,762	2,504
F	Peak Hour 2011 - (Live Oak Av. / Arrow #1)	1,189	793	1,982	864	1,843	2,707
	Delta	-103	216	113	-122	-81	-203
	%	-9%	27%	6%	-14%	-4%	-7%
	East of Graham Access Rd.						
	Tube Counts 2013	1,372	663	2,035	864	1,416	2,280
G	Peak Hour 2011 - (Graham / Live Oak Av. #9)	1,412	846	2,258	915	1,591	2,506
	Delta	-40	-183	-223	-51	-175	-226
	%	-3%	-22%	-10%	-6%	-11%	-9%
	Between Rivergrade Rd. & Arrow Hwy.						
	Tube Counts 2013	1,086	1,009	2,095	742	1,762	2,504
H	Peak Hour 2011 - (Rivergrade / Live Oak Av. #11)	1,514	827	2,341	836	1,914	2,750
	Delta	-428	182	-246	-94	-152	-246
	%	-28%	22%	-11%	-11%	-8%	-9%

2013 vs 2011 PEAK HOUR DATA COMPARISONS

ID	SEGMENT LOCATION	AM			PM		
		IN	OUT	TOTAL	IN	OUT	TOTAL
	LIVE OAK AVENUE (Cont...)						
	East of Baldwin Park Bl.						
	Tube Counts 2013	1,404	878	2,282	901	1,494	2,395
I	Peak Hour 2011 - (Baldwin Park / Live Oak Av. #13)	1,485	746	2,231	901	1,758	2,659
	Delta	-81	132	51	0	-264	-264
	%	-5%	18%	2%	0%	-15%	-10%
	AVENIDA BARBOSA						
	North of Arrow Hwy.						
	Tube Counts 2013	231	875	1,106	658	338	996
J	Peak Hour 2011 - (Avenida Barbosa / Arrow Hwy. #2)	262	753	1,015	565	368	933
	Delta	-31	122	91	93	-30	63
	%	-12%	16%	9%	16%	-8%	7%
	RIVERGRADE ROAD						
	West of Arrow Highway						
	Tube Counts 2013	184	212	396	165	135	300
K	Peak Hour 2011 - (Arrow / Rivergrade #5)	164	227	391	168	143	311
	Delta	20	-15	5	-3	-8	-11
	%	12%	-7%	1%	-2%	-6%	-4%
	BALDWIN PARK BOULEVARD						
	South of Live Oak Av.						
	Tube Counts 2013	449	178	627	192	564	756
L	Peak Hour 2011 - (Baldwin Park / Live Oak Av. #13)	365	175	540	193	584	777
	Delta	84	3	87	-1	-20	-21
	%	23%	2%	16%	-1%	-3%	-3%

DATA SET	AM			PM		
	IN	OUT	TOTAL	IN	OUT	TOTAL
TUBE COUNTS (2013) TOTAL	14,452	9,386	23,838	9,032	13,485	22,517
PEAK HOUR 2011 TOTAL	14,772	8,655	23,427	9,295	14,161	23,456
Delta	-320	731	411	-263	-676	-939
%	-2.20%	8.40%	1.80%	-2.80%	-4.80%	-4.00%
PEAK HOUR ADJUSTMENT FACTOR FOR 2011 INTERSECTION DATABASE	1.018			N/A		

= Higher Data Set

ATTACHMENT B

E-mail Correspondence with Ms. Bridget Swaim,
Executive Assistant to the Superintendent of the Covina-Valley Unified School District

Neal Liddicoat

From: Bridget Swaim <bswaim@cvusd.k12.ca.us>
Sent: Wednesday, April 23, 2014 4:10 PM
To: Neal Liddicoat
Subject: Re: School Calendar for 2010 - 2011

Hi, It was not a school day.

Thank you,

Bridget Swaim
Covina-Valley Unified School District
Superintendent's Office
bswaim@cvusd.k12.ca.us
(626) 974-7000 extension 2002

"Neal Liddicoat" <NLiddicoat@mroengineers.com> writes:

Ms. Swaim –

I'm sure this sounds like a nutty question, but I need to know whether June 15, 2011 was a school day and, if so, was it a standard day, a minimum day, or an exam day for high schoolers?

I'm reviewing a traffic impact analysis for a project in Irwindale, and the City requires that all traffic data be collected on a school day. The data for the study I'm checking was collected on June 15, 2011. In reviewing the current school district calendars, it appears likely that this date was not a school day, but I would like to confirm this.

Thank you for your assistance.

Neal K. Liddicoat, P.E.
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ATTACHMENT C

Selected Freeway Mainline and Freeway Ramp Merge/Diverge Level of Service Tables

Table 3.12-17 Existing Plus Project Conditions Basic Freeway Segment Analysis Summary

FREEWAY	DIRECTION	MAINLINE SEGMENT LOCATION	Lanes[1]	VOLUME AM	VOLUME PM	DENSITY[2] AM	DENSITY[2] PM	LOS[3] AM	LOS[3] PM
I-605 FREEWAY	NB	Immediately South of Live Oak Avenue	4	6,254	6,131	25.8	20.7	C	C
		Between Live Oak Avenue and Eastbound Arrow Highway Loop On Ramp	4	4,919	4,751	19.8	25.1	C	C
		Between Eastbound Arrow Highway Loop On Ramp and Westbound Arrow Highway On Ramp	4	5,167	4,874	20.8	19.1	C	C
		Immediately North of Westbound Arrow Highway On Ramp	4	5,753	5,312	23.3	19.6	C	C
	SB	Immediately North of Arrow Highway Off Ramps	4	4,628	4,809	18.6	19.3	C	C
		Between Arrow Highway Off Ramps and Live Oak On Ramps	4	3,655	4,166	14.7	16.7	B	B
		Immediately South of Live Oak On Ramps	4	5,139	5,839	20.2	23.7	C	C
I-210 FREEWAY	WB	Immediately East of Irwindale Avenue Westbound Off Ramp	4	7,039	7,110	30.4	30.8	D	D
		Between Irwindale Avenue Westbound Loop On Ramp and Irwindale Avenue Westbound Off Ramp	4	6,435	6,582	26.7	27.5	D	D
		Immediately West of Irwindale Avenue Westbound On Ramp	4	7,436	7,313	33.2	32.3	D	D
	EB	Immediately West of Irwindale Avenue Eastbound Off Ramp	4	7,573	7,221	34.4	31.6	D	D
		Between Irwindale Avenue Eastbound Off Ramp and Irwindale Avenue Eastbound OnRamp	4	6,034	6,399	24.7	26.5	C	D
		Immediately East of Irwindale Avenue Eastbound Off Ramp	4	6,523	7,303	27.2	32.2	D	D

[1] Number of lanes is in the specified direction and is based on existing conditions.
[2] Density is measured by passenger cars per mile per lane (pc/mi/ln).
[3] Level of service determined using HCS+: Basic Freeway Segments software, Version 5.21

Table 3.12-18 Existing Plus Project Conditions Basic Freeway Ramp Junction Merge/Diverge Analysis Summary

FREEWAY	DIRECTION	RAMP LOCATION	Lanes on Freeway[1]	VOLUME AM	VOLUME PM	DENSITY[2] AM	DENSITY[2] PM	LOS[3] AM	LOS[3] PM
I-605 FREEWAY	NB	NB Off Ramp at Live Oak Avenue	4	1,335	1,380	35.3	35.0	E	D
		NB Loop On Ramp for Eastbound Arrow Highway	4	248	123	20.6	19.8	C	B
		NB Direct On Ramp for Westbound Arrow Highway	4	586	438	23.7	21.5	C	C
	SB	SB Off Ramp at Arrow Highway	4	973	643	26.8	25.9	C	C
		SB On Ramp at Live Oak Avenue	4	1,484	1,673	25.7	29.0	C	D
I-210 FREEWAY	WB	WB Off Ramp at Irwindale Avenue	4	604	528	33.5	33.4	D	D
		WB Loop On Ramp at Irwindale Avenue	4	540	448	29.2	29.0	D	D
		WB Direct On Ramp at Irwindale Avenue	4	461	283	29.2	28.2	D	D
	EB	EB Off Ramp at Irwindale Avenue	4	1,539	822	22.2	20.5	C	C
		EB On Ramp at Irwindale Avenue	4	489	904	26.9	29.5	C	D

[1] Existing conditions for all study area merge/diverge locations consists of single lane on/off ramps.
[2] Density is measured by passenger cars per mile per lane (pc/mi/ln).
[3] Level of service determined using HCS+: Ramps and Ramp Junction software, Version 5.21

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Table 3.12-21 Interim Year (2016) With Project Conditions Basic Freeway Segment Analysis Summary

FREEWAY	DIRECTION	MAINLINE SEGMENT LOCATION	Lanes[1]	VOLUME AM	VOLUME PM	DENSITY[2] AM	DENSITY[2] PM	LOS[3] AM	LOS[3] PM
I-605 FREEWAY	NB	Immediately South of Live Oak Avenue	4	6,871	6,815	29.2	28.9	D	D
		Between Live Oak Avenue and Eastbound Arrow Highway Loop On Ramp	4	5,406	5,304	21.8	21.4	C	C
		Between Eastbound Arrow Highway Loop On Ramp and Westbound Arrow Highway On Ramp	4	5,669	5,437	22.9	21.9	C	C
		Immediately North of Westbound Arrow Highway On Ramp	4	6,318	5,940	26.1	24.2	D	C
	SB	Immediately North of Arrow Highway Off Ramps	4	5,171	5,380	20.8	21.7	C	C
		Between Arrow Highway Off Ramps and Live Oak On Ramps	4	4,102	4,660	16.5	18.7	B	C
		Immediately South of Live Oak On Ramps	4	5,720	6,482	23.5	27.0	C	D
I-210 FREEWAY	WB	Immediately East of Irwindale Avenue Westbound Off Ramp	4	7,585	7,680	36.8	35.3	E	E
		Between Irwindale Avenue Westbound Loop On Ramp and Irwindale Avenue Westbound Off Ramp	4	6,915	7,096	29.5	30.7	D	D
		Immediately West of Irwindale Avenue Westbound On Ramp	4	7,997	7,896	38.3	37.3	E	E
	EB	Immediately West of Irwindale Avenue Eastbound Off Ramp	4	8,158	7,817	40.1	36.6	E	E
		Between Irwindale Avenue Eastbound Off Ramp and Irwindale Avenue Eastbound OnRamp	4	6,496	6,921	27.1	29.6	D	D
		Immediately East of Irwindale Avenue Eastbound Off Ramp	4	7,035	7,905	30.3	37.4	D	E

[1] Number of lanes is in the specified direction and is based on existing conditions.
[2] Density is measured by passenger cars per mile per lane (pc/mi/ln).
[3] Level of service determined using HCS+: Basic Freeway Segments software, Version 5.21

Table 3.12-22 Interim Year (2016) With Project Basic Freeway Ramp Junction Merge/Diverge Analysis Summary

FREEWAY	DIRECTION	RAMP LOCATION	Lanes on Freeway[1]	VOLUME AM	VOLUME PM	DENSITY[2] AM	DENSITY[2] PM	LOS[3] AM	LOS[3] PM
I-605 FREEWAY	NB	NB Off Ramp at Live Oak Avenue	4	1,465	1,512	36.6	38.6	E	E
		NB Loop On Ramp for Eastbound Arrow Highway	4	263	133	22.4	21.8	C	C
		NB Direct On Ramp for Westbound Arrow Highway	4	649	503	26.0	24.0	C	C
	SB	SB Off Ramp at Arrow Highway	4	1,069	720	29.6	28.7	D	D
		SB On Ramp at Live Oak Avenue	4	1,618	1,822	28.4	32.0	D	D
I-210 FREEWAY	WB	WB Off Ramp at Irwindale Avenue	4	670	584	36.2	36.1	E	E
		WB Loop On Ramp at Irwindale Avenue	4	593	500	25.6	26.5	C	C
		WB Direct On Ramp at Irwindale Avenue	4	489	300	31.3	30.1	D	D
	EB	EB Off Ramp at Irwindale Avenue	4	1,662	896	25.0	21.7	C	C
		EB On Ramp at Irwindale Avenue	4	539	984	28.7	32.0	D	D

[1] Existing conditions for all study area merge/diverge locations consists of single lane on/off ramps.
[2] Density is measured by passenger cars per mile per lane (pc/mi/ln).
[3] Level of service determined using HCS+: Ramps and Ramp Junction software, Version 5.21

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Table 3.12-25 Long Range (2035) With Project Conditions Basic Freeway Segment Analysis Summary

FREEWAY	DIRECTION	MAINLINE SEGMENT LOCATION	Lanes[1]	VOLUME AM	VOLUME PM	DENSITY[2] AM	DENSITY[2] PM	LOS[3] AM	LOS[3] PM
I-605 FREEWAY	NB	Immediately South of Live Oak Avenue	4	7,146	7,084	31.1	30.6	D	D
		Between Live Oak Avenue and Eastbound Arrow Highway Loop On Ramp	4	5,626	5,517	22.8	22.3	C	C
		Between Eastbound Arrow Highway Loop On Ramp and Westbound Arrow Highway On Ramp	4	5,900	5,655	24.0	22.9	C	C
		Immediately North of Westbound Arrow Highway On Ramp	4	6,568	6,171	27.4	25.3	D	C
	SB	Immediately North of Arrow Highway Off Ramps	4	5,371	5,589	21.7	22.6	C	C
		Between Arrow Highway Off Ramps and Live Oak On Ramps	4	4,266	4,847	17.1	19.5	B	C
		Immediately South of Live Oak On Ramps	4	5,945	6,739	24.2	28.4	C	D
I-210 FREEWAY	WB	Immediately East of Irwindale Avenue Westbound Off Ramp	4	7,897	7,996	37.3	38.3	E	E
		Between Irwindale Avenue Westbound Loop On Ramp and Irwindale Avenue Westbound Off Ramp	4	7,201	7,389	31.5	32.9	D	D
		Immediately West of Irwindale Avenue Westbound On Ramp	4	8,328	8,222	42.2	40.9	E	E
	EB	Immediately West of Irwindale Avenue Eastbound Off Ramp	4	8,494	8,138	44.4	39.9	E	E
		Between Irwindale Avenue Eastbound Off Ramp and Irwindale Avenue Eastbound OnRamp	4	6,763	7,205	28.6	31.5	D	D
		Immediately East of Irwindale Avenue Eastbound Off Ramp	4	7,323	8,229	32.4	40.9	D	E

[1] Number of lanes is in the specified direction and is based on existing conditions.
[2] Density is measured by passenger cars per mile per lane (pc/mi/ln).
[3] Level of service determined using HCS+: Basic Freeway Segments software, Version 5.21

Table 3.12-26 Long Range (2035) With Project Basic Freeway Ramp Junction Merge/Diverge Analysis Summary

FREEWAY	DIRECTION	RAMP LOCATION	Lanes on Freeway[1]	VOLUME AM	VOLUME PM	DENSITY[2] AM	DENSITY[2] PM	LOS[3] AM	LOS[3] PM
I-605 FREEWAY	NB	NB Off Ramp at Live Oak Avenue	4	1,520	1,568	40.1	40.1	E	E
		NB Loop On Ramp for Eastbound Arrow Highway	4	274	138	23.2	22.6	C	C
		NB Direct On Ramp for Westbound Arrow Highway	4	668	516	26.9	24.9	C	C
	SB	SB Off Ramp at Arrow Highway	4	1,105	742	30.7	29.7	D	D
		SB On Ramp at Live Oak Avenue	4	1,679	1,892	29.4	33.2	D	D
I-210 FREEWAY	WB	WB Off Ramp at Irwindale Avenue	4	696	607	37.6	37.6	E	E
		WB Loop On Ramp at Irwindale Avenue	4	617	520	28.3	29.2	D	D
		WB Direct On Ramp at Irwindale Avenue	4	510	313	31.6	31.3	D	D
	EB	EB Off Ramp at Irwindale Avenue	4	1,731	933	28.3	24.8	D	C
		EB On Ramp at Irwindale Avenue	4	560	1,024	29.7	33.3	D	D

[1] Existing conditions for all study area merge/diverge locations consists of single lane on/off ramps.
[2] Density is measured by passenger cars per mile per lane (pc/mi/ln).
[3] Level of service determined using HCS+: Ramps and Ramp Junction software, Version 5.21

C&R-190

NEAL K. LIDDICOAT, P.E.

Traffic Engineering Manager

Education:

BSCE/1977
Michigan State University

Graduate Studies/1977-80
University of Tennessee

Registrations:

California

Civil Engineer – C35005

Michigan

Professional Engineer – 6201037605

Technical Specialties

Traffic Impact Analysis

Traffic Engineering/ Operations

Transportation Planning

Parking Analysis

Pedestrian/Bicycle Analysis

Affiliations:

Institute of Transportation Engineers -Fellow

American Society of Civil Engineers - Member

Mr. Liddicoat has 36 years of experience in the analysis of a broad range of traffic engineering, parking, and transportation planning issues, for both public and private sector clients. In addition to traffic engineering analyses for new roadway facilities, he has conducted traffic and parking analyses for a wide variety of development proposals, including office buildings, retail/commercial centers, multiplex cinemas, and residential projects. He has a particular expertise in the analysis of unique development proposals, including stadiums, arenas, convention centers, theme parks, and other facilities where large numbers of vehicles and pedestrians converge in a short period of time.

Mr. Liddicoat has developed and presented seminars on technical procedures and quality control in the conduct of traffic impact analyses, both in-house and as a co-instructor for the UCLA Extension Public Policy Program. For several years, he served as instructor for the traffic engineering portion of the Civil Engineering licensing exam review course conducted by the Sacramento chapter of the American Society of Civil Engineers.

Mr. Liddicoat manages the firm's traffic engineering services practice. He is frequently called upon to serve as an expert "peer reviewer" for traffic impact analyses prepared by others. In that role, he has commented on the technical adequacy of traffic studies for a variety of projects, including retail centers, office complexes, and mixed-use master plans. His noteworthy traffic engineering experience includes:

STAPLES Center Traffic Impact Analysis – Los Angeles, CA – Responsible for the completion of detailed traffic and parking analyses for the STAPLES Center arena in downtown Los Angeles. In addition to the 20,000 seats and 250 luxury suites contained in the arena, the analysis evaluated up to 100,000 square feet of retail, restaurant, and entertainment facilities. The analyses focused on the impacts of a sold-out event during the key hours before and after the event. In addition, the analyses were performed both with and without a major concurrent event at the adjacent Los Angeles Convention Center.

Sacramento City College Transportation Master Plan Analysis, Sacramento, CA – Project Manager for the traffic and parking analysis evaluating a proposed master plan aimed at adding 1,260 parking spaces to the Sacramento City College campus, as well as various other improvements to the campus transportation system. The analysis addressed near-term and long-term impacts at 23 intersections in the vicinity of the campus.

Raley Field Traffic and Parking Analysis, West Sacramento, CA – Project Manager for traffic and parking analyses for Raley Field, a 14,000-seat baseball stadium in West Sacramento. The analysis addressed pre-event and post-event conditions for baseball games as well as other events (such as concerts) that might have attendance as high as 17,000. An extensive set of mitigation measures was developed, including a variety of operational strategies to minimize impacts and optimize event-related traffic flows.

Thunder Valley Gaming Facility, Placer County, CA – Project Manager for the traffic impact study for this highly-successful casino in Placer County. The study included the assessment of on-site and off-site impacts, including detailed consideration of driveway access and the configuration of key roadways near the project.

Additional Projects Include:

- ***Convention Center Traffic & Parking Studies, Sacramento, Los Angeles, and Anaheim***
- ***Disney California Adventure Preliminary Traffic Analysis, Anaheim***
- ***Elk Grove Boulevard Master Plan, Elk Grove***
- ***CSUS Bicycle/Pedestrian Study, Sacramento***
- ***SR 99/Twin Cities Road Traffic Operations, Galt***
- ***Central Roseville Parking Analysis, Roseville***

Responses to Comment Letter 13

Response 13-1: As stated on page ES-2 of the Recirculated Draft EIR, "The primarily reason for recirculating the entire Draft EIR (including chapters that have not been revised) is due to concerns raised in some of the comment letters related to the Notice of Availability. Specifically, commenters raised concerns that the previously issued Notice of Availability did not comply with all technical requirements of CEQA Guideline §15087(c). In light of this, the City has decided to recirculate the entire Draft EIR and issue a revised Notice of Availability (now combined with the Notice of Completion) to assure that the public is not precluded a meaningful understanding of the Proposed Project and its potential effects, and where it is proposed to be located.

Response 13-2: The commenter's statement of interest is noted.

Response 13-3: This comment is incorrect. The Project Description (presented in Chapter 2.0 (pp. 2.0-1 through 2.0-40) is comprehensive, and does include a detailed breakdown of the mixture of wastes for which the Project capacity is designed. The air quality analysis is consistent with the Project Description in the Recirculated Draft EIR. The Project Description discussion in the Draft EIR was revised in the Recirculated Draft EIR on pages 2.0-10 and 2.0-11 as follows (new text is underlined and ~~strikethrough~~ is used for deleted text):

"The waste would be unloaded from collection vehicles and briefly held while it is reloaded onto larger, long-distance transport vehicles for shipment to landfills. MSW residual waste (unrecoverable waste) is expected to be transported to the Mid Valley landfill in Rialto (San Bernardino County) or, San Timoteo landfill in Redlands (San Bernardino County). ~~or Chiquita Canyon landfill in Castaic (Los Angeles County).~~ Approximately 85% ~~80%~~ of the MSW residual waste would be transferred to the Mid Valley landfill which is approximate 30 miles east. The remaining 15% MSW residual waste would be transferred to the San Timoteo landfill which is approximately 45 miles east. ~~Distances from the site to the landfills are approximately 30, 45, and 55 miles, respectfully.~~ Recyclables recovered from the waste stream would be processed, baled, and sent to the ports of Los Angeles and Long Beach for overseas shipping to recycling plants."

Response 13-4: The Recirculated Draft EIR provides mitigation to reduce all construction emissions to less than significant. The Recirculated Draft EIR provides mitigation to reduce GHG emissions to less than significant. The Recirculated Draft EIR provides mitigation to reduce all criteria pollutant emissions except ROG and NOx to less than significant. The Recirculated Draft EIR found that reducing operational ROG and NOx emissions to less than significant is infeasible.

With regard to construction emissions; **MM AQ-1** (Recirculated Draft EIR page 3.3-31) has been revised to ensure the City verifies compliance with SCAQMD Rules 402 and 403. **MM AQ-2 through AQ-9** (Recirculated Draft EIR pages 3.3-32 through 3.3-34) are designed to minimize combustion emissions during construction activities. **MM AQ-10 through AQ-11** (Recirculated Draft EIR page 3.3-34) are designed to minimize ROG emissions from building coating during construction activities.

With regard to operational emissions, the **MM AQ-12 through AQ-18** (page 3.3-43 and 44) were modified to reduce the potential significant air quality impacts to ROG and NO_x emissions from the Proposed Project. To document the construction emission reductions due to **MM AQ-1**

through AQ-11, the discussion in the Draft EIR was revised in the Recirculated Draft EIR starting on page 3.3-31 as follows (new text is underlined and ~~strikethrough~~ is used for deleted text):

"On an annual basis, the fugitive dust control efficiency for PM10 determined by CalEEMod is 28 percent and the fugitive dust control efficiency for PM2.5 determined by CalEEMod is 36 percent. On a daily basis, the fugitive dust control efficiency for PM10 determined by CalEEMod is 57 percent and the fugitive dust control efficiency for PM2.5 determined by CalEEMod is 60 percent. Although the Project is required and would be expected to adhere to the provisions of SCAQMD Rules 402 and 403 regarding construction-related fugitive dust control, (**MM AQ-1**) is required to ensure the City verifies compliance.

On an annual basis, the exhaust control efficiency for PM10 determined by CalEEMod is 55 percent and the exhaust control efficiency for PM2.5 determined by CalEEMod is 53 percent. On a daily basis, the exhaust control efficiency for PM10 determined by CalEEMod is 56 percent and the exhaust control efficiency for PM2.5 determined by CalEEMod is 53 percent. **MM AQ-2 through AQ-9~~10~~** are designed to minimize combustion emissions during construction activities. Some of the additional mitigation measures of particulate exhaust are more difficult to quantify and thus, it is likely that implementation of **MM AQ-2 through AQ-9** would result in higher exhaust control efficiency.

The Applicant shall limit ROG construction emissions during the application of architectural coatings and solvents pursuant to the provisions of SCAQMD Rule 1113 (**MM AQ-10~~11~~ and AQ-11~~12~~**).

MM AQ-1

In order to offset potential impacts that could occur without compliance with Rules 402 and 403, the City shall ensure the Proposed Project adheres to the provisions of SCAQMD Rules 402 and 403 regarding construction-related fugitive dust control by implementing a dust control program pursuant to the provisions of SCAQMD Rules 402 and 403. The Applicant shall ensure that contractors implement a fugitive dust control program pursuant to the provisions of SCAQMD Rules 402 and 403. This program shall include, but not limited to the following:

- Prior to issuance of any grading permit, the City Engineer and Senior Building Inspector shall confirm that the grading plan and building plans stipulate that, in compliance with SCAQMD Rule 403, fugitive dust shall be controlled by the applicable best available control measures listed in Table 1 of Rule 403.
- Water or a stabilizing agent shall be applied at least three times daily, preferably in the mid-morning, afternoon, and after work is done for the day, to exposed surfaces including graded and disturbed areas in sufficient quantity to prevent generation of dust plumes.
- ~~Water or a stabilizing agent shall be applied to exposed surfaces in sufficient quantity to prevent generation of dust plumes.~~
- Track-out shall not extend 25 feet or more from an active operation and track-out shall be removed at the conclusion of each workday. The contractor shall use a gravel apron, 25 feet long by road width, or a pipe-grid track-out control device to reduce mud/dirt track-out from active operations and unpaved truck exit routes.
- A wheel washing system shall be installed and used to remove bulk material from tires and vehicle undercarriages before vehicles exit the project site.

- ~~All haul trucks hauling soil, sand, and other loose materials shall maintain at least six inches of freeboard in accordance with California Vehicle Code Section 23114~~. All trucks hauling dirt, sand, soil, or other loose materials are to be tarped with a fabric cover and maintain a freeboard height of 12 inches.
- ~~All haul trucks hauling soil, sand, and other loose materials shall be covered (e.g., with tarps or other enclosures that would reduce fugitive dust emissions).~~
- Traffic speeds on unpaved roads shall be limited to 15 miles per hour.
- Operations on unpaved surfaces shall be suspended when winds exceed 25 miles per hour.
- On-site stock piles shall be covered or watered at least twice per day.

MM AQ-2

The Applicant shall ensure that construction equipment is properly tuned and maintained in accordance with manufacturer's specifications to ensure minimum emissions under normal operations.

~~MM AQ-3~~

~~The Construction Constructor shall ensure Construction be discontinued during second-stage smog alerts.~~

MM AQ-3~~-4~~

Electricity from power poles rather than temporary diesel- or gasoline-powered generators shall be used, where available.

~~MM AQ-5~~

~~All construction vehicles shall be prohibited from idling in excess of five minutes, both on- and off-site.~~

MM AQ-4~~-6~~

Heavy-duty diesel trucks shall be properly tuned and maintained to manufacturers' specifications to ensure minimum emissions under normal operations.

MM AQ-5~~7~~

Heavy equipment operations shall be discontinued ~~suspended~~ during first and second stage smog alerts.

MM AQ-6~~8~~

The use of 2010 model or newer construction equipment shall be required, where feasible.

MM AQ-7~~9~~

Older (prior to 2010 model year) construction equipment shall be retrofitted with appropriate emission control devices (Tier 2 or better) prior to onsite use.

MM AQ-8

The project shall develop a plan demonstrating that the off-road equipment (more than 50 horsepower) to be used in the construction project (i.e., owned, leased, and subcontractor vehicles) would achieve a project wide fleet-average 20 percent NO_x reduction and 85 percent PM reduction

compared to the most recent CARB fleet average (i.e., Tier 2 equipment or better). Acceptable options for reducing emissions include the use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, add-on devices such as particulate filters, and/or other options as such are available.

MM AQ-9~~10~~

All construction vehicles, both on- and off-site, and construction equipment idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations). ~~Clear signage shall be provided for construction workers at all access points.~~ The construction contractor shall post visible signage within construction equipment operator components notifying equipment operators of the prohibiting against idling in excess of five minutes. The construction contractor shall provide awareness training to equipment operators regarding idling limits.

MM AQ-10~~11~~

Contractors shall use varying-pressure-low-volume paint applicators or other application techniques with equivalent or higher transfer efficiency.

MM AQ-11~~12~~

Use super compliant VOC (and ROG) coatings for all architectural applications. (Rule 1113 of the SCAQMD established a schedule of VOC limits for architectural coatings. However, many manufacturers have reformulated their coatings to levels well below these limits. These are referred to as "Super-Compliant" and contain less than 10 grams of VOC per liter.)

MM AQ-12~~13~~

Applicant shall properly maintain ROG emission control devices within the gasoline dispensing station pursuant to SCAQMD Rule 461.

MM AQ-13~~14~~

All gasoline dispensing facilities shall meet the requirements of SCAQMD's Rule 461 to limit ROG emissions from gasoline dispensing facilities, including but not limited to using CARB-certified vapor recovery systems and spill boxes and periodic testing of the equipment.

MM AQ-14~~15~~

Heavy-duty diesel trucks shall be properly tuned and maintained to manufacturers' specifications to ensure minimum emissions under normal operations.

MM AQ-15~~16~~

The use of 2010 model or newer transfer trucks shall be required whenever older vehicles are replaced or upgraded, per SCAQMD Rule 1193.

MM AQ-16~~17~~

Older (prior to 2010 model year) transfer trucks shall be equivalent to Tier 2 emission standards (such as particulate filter traps) prior to onsite use.

MM AQ-17 ~~18~~

The Project Applicant shall require ~~all~~ on-site off-road heavy-duty equipment (loaders, excavators, skid steer) to meet USEPA Tier 3~~or higher~~ emissions standards ~~such that all off-road diesel-powered operational equipment greater than 50 horsepower (hp) shall meet Tier 3 off-road emissions standards.~~ In addition, ~~all~~ these on-site off-road construction equipment used in operation of the Project shall be outfitted with the Best Available Control Technology (BACT) devices certified by CARB. Any emissions control device used by the applicant ~~contractor~~ shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations. A copy of the certified tier specification for each piece of heavy-duty equipment, BACT documentation, and CARB or SCAQMD operating permit shall be provided to the City prior to operation of the Project.

MM AQ-18~~19~~

All diesel truck operators shall strictly abide by the applicable State law requirements for idling, as described in the Airborne Toxic Control Measure (CCR, Title 13, Section 2485), which limits vehicles with gross vehicular weight ratings of more than 10,000 pounds to no more than five minutes of idling of the primary engine or the diesel-fueled auxiliary power system at any location. Trucks engaging in unloading at the Project site and load weighing/financial transactions at the scale house shall be prohibited from idling in excess of five minutes. Visible signage notifying truck operators of idling limits shall be posted near all site entrances. In the event third party collection haulers were required, all diesel truck operators that use the facility would be encouraged, and if reasonably possible by Athens to require contractually, to apply in good faith for funding from an established CARB or SCAQMD funding program to either retrofit or replace engines."

As noted on page 3.3-44 of the Recirculated Draft EIR, MM AQ-12 through AQ-18 would reduce ROG and NO_X emissions by at least 40 percent, and PM_{10} and $PM_{2.5}$ emissions by 45 percent for onsite off-road equipment.

The discussion in the Draft EIR was revised in the Recirculated Draft EIR on pages 3.3-46 through 3.3-47 as follows (new text is underlined and ~~strikethrough~~ is used for deleted text):

"Requiring the applicant to limit all transfer trucks and solid waste vehicles that use the Project site and facilities to alternative fuel vehicles, could potentially further reduce significant impacts from ~~ROG and~~ NO_x emissions from the Proposed Project. However, the use and/or purchase of all alternative fueled vehicles beyond what is required by Rule 1193 as part of this Proposed Project is infeasible due to the high cost of refuse collection vehicles and existing requirement that alternatively fueled vehicles replace existing vehicles to comply with the SCAQMD Rule 1193. The SCAQMD rule considers what is economically feasible for purposes of imposing Rule 1193 on solid waste operators. For example, Rule 1193 includes provisions for economic hardship of small private fleet operators that can allow two one-year extensions to acquire rule compliant vehicles. Also, the transfer trucks are still primarily diesel fueled because at this time there are no suppliers that can deliver feasible alternatives (alternative-fueled transfer trucks). Rule 1193 requires fleet operators to go through a procurement process for alternative-fueled transfer trucks, but bids generally are not responded to because alternative-fueled vehicles don't meet other bid specifications (Cole, 2014). The process is outlined in Rule 1193 (f)(3)(A). As alternative-fueled vehicles with appropriate specification needed for transfer trucks become available, Rule 1193 requirements will assure that fleets will be added these vehicles for future replacements.

Additionally, requiring third party collection trucks that utilize the facility, beyond the requirements they have to comply with under Rule 1193, to be alternatively fueled would foreseeably result in an increase in emissions. Rather than converting their trucks to alternative fuels, third parties would likely choose to travel to the next closest facility (which potentially will result in increased trip lengths and air emissions) that does not have this requirement rather than using the Proposed Project even if it is more convenient with a short travel distance. In this instance, emissions may increase due to a longer travel distance. Nevertheless, compliance with Rule 1193 will reduce emissions. If the third parties contract with governmental agencies in the future they would be subject to the requirements set forth in SCAQMD Rule 1193. Based upon the previous information, requiring more solid waste and transfer trucks to be alternative fuel than what is already required under the SCAQMD ~~Air District~~ rules is not considered economically, socially or environmentally feasible."

Lastly, **MM AQ-22** (on page 3.3-68 of the Recirculated Draft EIR) provides for mitigation of GHG emissions to less than significant. The text in the Draft EIR was revised in the Recirculated Draft EIR on page 3.3-68 as follows (new text is underlined and ~~strikethrough~~ is used for deleted text):

"**MM AQ-22~~24~~:**

The Project Applicant shall purchase verifiable and certified GHG offset credits and provide verification to the City of the purchase annually. Off-set credits shall be purchased in an amount that is based on one of the following:

(1) Offset-credits for ~~21,152~~ 48,803 metric tons or,

(2) Offset-credits in an amount computed on the basis of the Project's actual GHG emissions the previous year ~~compared to actual Project-related emissions~~ compared to emissions from the 2013 baseline condition ~~[what MRF was used in 2013]~~ minus 10,000 metric tons of CO_2e per year. The calculation must be prepared and certified by a professional Air Pollution expert, acceptable to the City as determined by the Director of Community Development.

When feasible, offset purchases would be prioritized by proximity to the Project Site, with greatest preference given to projects within the jurisdictional boundaries of the SCAQMD, then California, and then finally nationally. Carbon offsets are widely available in a number of markets (e.g., GreenX and Intercontinental Exchange) and exists at levels that greatly exceed the potential needs of the Proposed Project."

Response 13-5: The baseline condition text in the Draft EIR was revised in the Recirculated Draft EIR on pages 3.3-35 and 36 as follows (new text is underlined and ~~strikethrough~~ is used for deleted text):

"~~For purposes of assessing the impacts to air quality from vehicle emissions~~ The Proposed Project is expected to result in relocated emissions. That is, a significant portion of the truck trips associated with trash collection and transfer of solid waste and recyclable materials that will be coming to and leaving the Project site are and were occurring before and at the time of the publication of the Notice of Preparation and the start of the preparation of this EIR. As described in more detail, the applicant has provided information to the City that more than two-thirds of the materials that will be driven to and away from the Proposed Project facility are currently being taken to other facilities in the South Coast Air Basin ~~(Basin)~~. Therefore, a substantial amount of

emissions that will come from solid waste collection trucks and transfer trucks coming to and from the Project site are existing emissions already occurring in the Basin and will not be new emissions created from new trips that are a reasonable foreseeable result of the development of the Project. To assess air quality impacts from off-site vehicle emissions that will foreseeably result from the Project, the Draft EIR published in April 2014 assumed ~~assumes~~ a baseline condition that took ~~takes~~ into consideration these existing relocated emissions. However, to be extremely conservative and to avoid under-representing any potential air quality impacts from the Proposed Project, the City has analyzed all the trips to be new trips in this EIR. ~~reduced the identified existing truck trips, and their associated emissions, in half. This is explained in more specific detail below.~~

~~The Baseline Condition assumes a maximum throughput of 2,180 tons per day and resultant truck trips.[7] As discussed above, this Baseline Condition represents a conservatively low estimate of emissions, which results in a conservatively higher estimate in Project related emissions. Based on statements and documents provided by the Applicant, the estimated maximum throughput for the Baseline Condition is 4,360 tons per day (based on market share, waste amounts, and trip distances). That is, based on the information provided by the applicant of their current operations that will be relocated to the Project site, 4,360 tons per day of solid waste/recycling materials will be coming on truck trips currently occurring in the Basin.~~ **Table 3.3-11~~6~~, Regional Efficiency – Distance from Markets to Regional Transfer Stations (miles)** provides data on the tons generated by the applicant's current operations in various cities and distance from markets to regional transfer stations. **Table 3.3.12~~7~~ Regional Efficiency – Distance from Regional Transfer Stations to Landfill, Recycling, and Composting (miles)** is information on the current distances for the applicant's operations from the regional transfer stations to landfills, recycling centers and compost sites. The City has conservatively reduced those 4,360 tons per day of throughput (assumed in the Draft EIR), to 0~~2,180~~ tons per day in the analysis (at the request of the SCAQMD and other commenters) for air impacts to ensure there is no undercounting of new off-site vehicle emissions caused by the Proposed Project that result from unknown variables or unexpected changes in the future in the applicant's operations. In all likelihood all the trips to the Irwindale MRF would not be new trips, because the operation of the new MRF/TS would not create new waste to be processed. As seen in **Table 3.3-12**, the trip lengths to the Irwindale MRF/TS would be less than the trip lengths to some competing MRFs but would be more than the trip lengths to other competing MRFs. However, because the Proposed Project does not include reducing waste volumes going to other MFR/TS or reducing the permits at other MRF/TS locations, the most conservative analysis is to assume all the trips to the Irwindale MRF/TS would be new trips.

~~Under the Baseline Condition, or current operations, the truck trips occur but are processed at the Grand Central Recycling and Transfer Station and Athens Services Material Recovery Facility[8] and then transported to the Mid-Valley Landfill (85 percent of trips) and San Timoteo Landfill (15~~

~~[7] Regional Efficiency Study, May 29, 2009 (1,362,507 tons of waste per six days per week, 52 weeks per year and a 50 percent adjustment factor so that the project is conservatively evaluated).~~

~~[8] The material is processed by City of Industry Grand Central Transfer Station (999 Hatcher Ave City Of Industry, CA 91748) and Athens Services Material Recovery Facility (14048 East Valley Blvd, City of Industry, CA 91746) at a split of 50/50 percent.~~

~~percent of trips)[9]; with a weighted average one-way travel distance of 41 miles[10]. The recycling materials are sent to the Port of Los Angeles/Long Beach, an average of 35 miles travel distance. The composting materials are sent to Victorville (American Organics), an average of 71 miles travel distance. The waste is estimated to be 46 percent landfill material, 35 percent recycling material, and 19 percent composting material.[11] The average travel distances for the Baseline Condition are estimated to be 15.7 and 12.6 miles for the collection/roll-off trucks and self-haul trucks, respectively.~~

This analysis accounts for 68 percent of existing solid waste collection trucks (both owned by the Project Applicant and third parties) as compressed natural gas (CNG) fueled and the remaining 32 percent are diesel-fueled. It is assumed that outbound transfer trucks would be diesel fueled. Compared to diesel trucks, NOX emissions are reduced by approximately 25 percent, and PM_{10} and $PM_{2.5}$ emissions by 15 percent for CNG trucks. EMFAC2011 provides diesel and gasoline emission factors only."

Response 13-6: The discussion in the Draft EIR was revised in the Recirculated Draft EIR on pages 3.3-9 and 3.3-10 as follows (new text is underlined and ~~strikethrough~~ is used for deleted text):

"**Clean Air Act**

Under the federal CAA, USEPA and CARB designate air basins where NAAQS are exceeded as "nonattainment" areas. If standards are met, the area is designated as an "attainment" area. If there are inadequate or inconclusive data to make a definitive attainment designation, they are considered "unclassified." Areas where air pollution levels persistently exceed the state or national ambient air quality standards are designated "nonattainment." The South Coast Basin portion of Los Angeles County is in nonattainment status for the federal ozone, lead, and PM2.5; and in attainment for the federal CO, NO2, SO2, and PM10.[12] Federal nonattainment areas are further designated as marginal, moderate, serious, severe, or extreme as a function of deviation from standards. The South Coast Basin portion of Los Angeles County is in nonattainment status for the State ozone, PM10, and PM2.5; and is in attainment status for CO, NO2, SO2, and lead.[13]

~~Under the federal Clean Air Act (CAA), each state must identify non-attainment areas that do not meet the NAAQS. For any non-attainment designation, a State Implementation Plan (SIP) is developed to define actions to be taken to achieve future attainment of the applicable NAAQS. In summary, an attainment area is any area that meets the NAAQS; a non-attainment area is any area that does not meet the NAAQS; and a maintenance area is any area previously designated non-~~

~~[9] Athens Services, December 13, 2013.~~

~~[10] This average distance was used for purposes of estimating truck mileage and related emissions. However, the most recent project description indicates the unrecoverable materials will be transported to the Mid Valley landfill in Rialto (San Bernardino County), San Timoteo landfill in Redlands (San Bernardino County) or Chiquita Canyon landfill in Castaic (Los Angeles County). Distances from the site to the landfills are approximately 35, 53, and 58 miles, respectfully. Approximately 80% of the MSW residual waste would be transferred to the Mid Valley which is east of the Irwindale site. The total miles travelled based upon the latest assumptions could be slightly higher (2 - 5%) than the assumptions of the modeling described in this section but well below the 50% reduction in total tons the City used to assure a conservative analysis of air emission impacts.~~

~~[11] Athens Services, December 13, 2013.~~

[12] *USEPA, The Green Book Nonattainment Areas for Criteria Pollutants, http://www.epa.gov/air/oaqps/greenbk/index.html*

[13] *CARB, Area Designations Maps/State and National, http://www.arb.ca.gov/desig/adm/adm.htm*

~~attainment but is in transition back to attainment. Notably, Los Angeles County, including the City of Irwindale, is currently in "severe" non-attainment of the 8-hour O3 NAAQS, non-attainment of the PM2.5 NAAQS, and maintenance for CO.~~"

Response 13-7: See Response to Comment 13-6. The changes do not affect the impact conclusions for the Proposed Project.

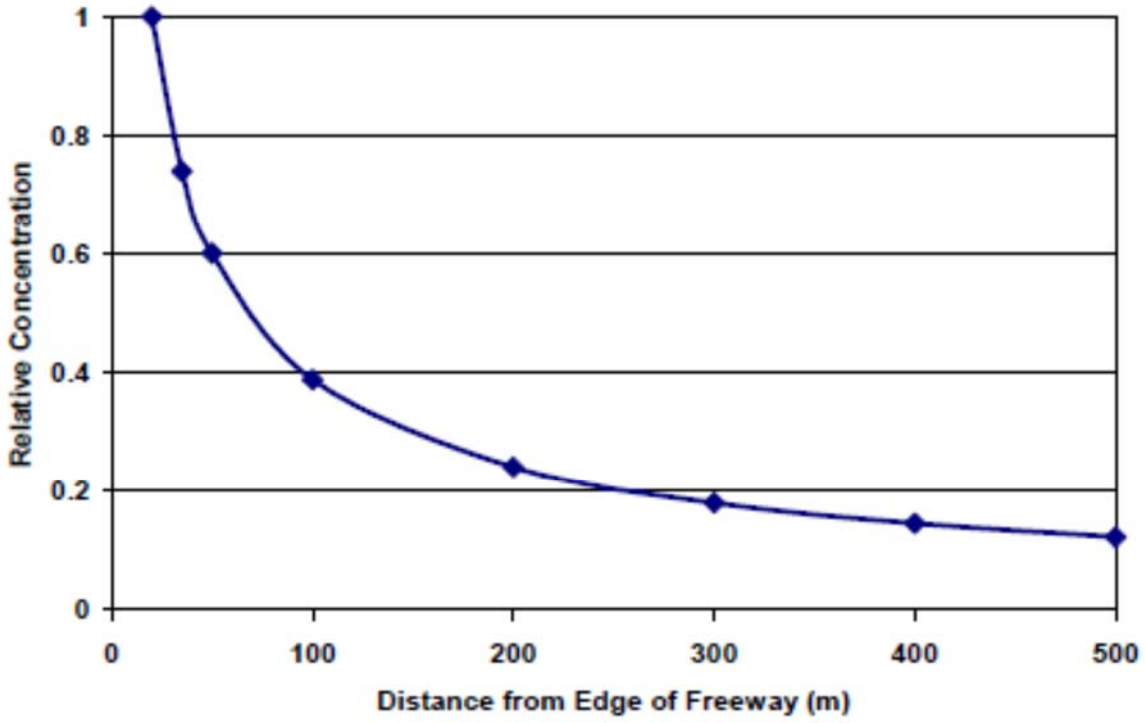
Response 13-8: Appendix C Exhibit 4 shows receptors that include residential areas, commercial/industrial areas and sensitive receptors such schools (Margaret Heath Elementary, Pleasant View Elementary, Olive Junior High, Walnut Elementary, Santa Fe Elementary, Jerry Holland Junior High, Ernest Geddes Elementary, and North Park High School) and outdoor recreational areas near the Proposed Project. The nearest residence is located on the south side of Live Oak Avenue behind other industrial land uses in the City of Baldwin Park and approximately 325 feet from the Project. A total of 1,200 sensitive receptors were analyzed which includes a grid of receptors spaced 100 meters apart. Secondly, Appendix C Exhibit 5 shows the receptors associated with the LST analysis and off-site worker sensitive receptors included in the AERMOD model as a fine grid 25 meter x 25 meter located up to 500 meters from the fence line. A total of 2,240 LST analysis receptors were analyzed within this grid system.

Many of these receptors were placed along the expected truck route including Arrow Highway, Live Oak Avenue, and Irwindale Avenue. Any parts of the truck route other than these streets would be expected to experience lower impacts as the truck traffic would be less concentrated. Secondly, the pollutant concentration rapidly decreases with distance from the roadway edge. USEPA found a 50 percent decrease in NO_2 and $PM_{2.5}$ concentrations by 50 to 150 meters from roadway edge.[14]

CARB studies have shown that air pollution levels can be significantly higher within 500 feet (150 meters) of freeways or busy traffic corridors and then diminish rapidly. A downwind distance of 328 feet (100 meters) will reduce cancer risk by over 60 percent. If the physical downwind distance is increased to 984 feet (300 meters), the relative concentration is reduced over 80 percent. Estimated cancer risk from diesel particulate matter along rural and urban roadways is decreased approximately 68 percent at a distance 492 feet (150 meters) from the edge of the roadway. Clearly, these data demonstrate that a minimum distance that separates sources of diesel emissions from nearby receptors is effective in reducing potential cancer risk.

Thus, it would be expected that receptors beyond a quarter mile of the roadways would have much lower air quality impacts than nearer the roadways.

[14] Karner (2010), Near-Roadway air Quality: Synthesizing the Findings from Real-World Data.



Source: *South Coast Air Quality Management District. Adapted from the California Air Resources Board's Diesel Risk Reduction Plan,* http://www.aqmd.gov/docs/default-source/planning/air-quality-guidance/chapter-2---air-quality-issues-regarding-land-use.pdf?sfvrsn=2

Response 13-9: To address the issue of existing and cumulative pollutant risks, the discussion in the Draft EIR was revised in the Recirculated Draft EIR on pages 3.3-8 and 3.3-9 as follows (new text is underlined and ~~strikethrough~~ is used for deleted text):

"The most comprehensive study on air toxics in the Basin is the Multiple Air Toxics Exposure Study (MATES-III)[15], conducted by the SCAQMD. The monitoring program measured more than 30 air pollutants, including both gas and particulates. The monitoring study was accompanied by a computer modeling study in which SCAQMD estimated the risk of cancer from breathing toxic air pollution throughout the region based on emissions and weather data. MATES-III found that the average cancer risk in the region from carcinogenic air pollutants ranges from approximately 870 in a million to 1,400 in a million, with an average regional risk of approximately 1,200 in a million. Preliminary results for MATES-IV show that trends in monitored levels air toxics continue to decline, modeled exposures and risks substantially lower compared to MATES III, and DPM remains largest component of air toxics estimated risk.

City of Irwindale Cancer Study

Due to City concerns about possible cancer risks from the industrial activity in the City, the City funded a study by Soil Water Air Protection Enterprise (SWAPE) in 2013 to evaluate the cancer

[15] South Coast Air Quality Management District, Multiple Air Toxics Exposure Study (MATES-III) in the South Coast Air Basin, September 2008, http://www.aqmd.gov/home/library/air-quality-data-studies/health-studies/mates-iii/mates-iii-final-report

rates in the City of Irwindale. The effort was in collaboration with the Cancer Surveillance Program. The Cancer Surveillance Program manages a database of all cancer diagnoses, recorded by the patient's residential address within Los Angeles County, and reports these data to the California Cancer Registry. In addition to total cancer cases, four common cancers were evaluated from 2001 through 2010: breast, colon, lung/oropharyngeal, and prostate. Other cancers could not be evaluated for confidentiality reasons, because they occurred in such low numbers. Annual age-adjusted incidence rates were calculated for Irwindale, bordering census tracts, Los Angeles County, and California. Irwindale's rates were then evaluated against the rates of the other three regions.

The cancer assessment found that the Irwindale area has no significant excess of breast, prostate, colon, and lung/oropharyngeal cancers relative to neighboring census tracts, Los Angeles County, and California. In fact, Irwindale was found to have lower cancer incidence than surrounding census tracts, Los Angeles County, and California.[16] The SWAPE report is included in within **Appendix C** of this Recirculated DEIR."

Response 13-10: Table 3.3-3 of the Draft EIR was revised in the Recirculated Draft EIR on page 3.3-25 (new text is underlined and ~~strikethrough~~ is used for deleted text) to provide the correct significance threshold for PM2.5 of 55 pounds per day (lbs/day) for construction activities. Also significance threshold for SO2 and lead have been included. Notably the construction impacts due to the proposed project are less than significant.

Table 3.3-3 Air Quality Significance Thresholds

Pollutant	*Construction*	Operation
NOx	100 lbs./day	55 lbs./day
VOC (ROG)	75 lbs./day	55 lbs./day
PM10	150 lbs./day	150 lbs./day
PM2.5	~~150~~ 55 lbs./day	55 lbs./day
CO	550 lbs./day	550 lbs./day
SO2	150 lbs./day	150 lbs./day
Lead	3 lbs./day	3 lbs./day

SOURCE: South Coast Air Quality Management District, SCAQMD Air Quality Significance Thresholds, http://www.aqmd.gov/ceqa/hdbk.html

Response 13-11: See Response to Comment 13-10.

Response 13-12: THRESHOLD AQ-1 of the Draft EIR has been revised in the Recirculated Draft EIR (pages 3.3-26 through 3.3-29) to include a list of construction phases: demolition, site preparation, grading, building construction, paving, and coating, the detailed construction schedule

[16] Soil Water Air Protection Enterprise, Air Quality and Cancer Incidence Assessment of Irwindale, California, January 2014.

by phase, the construction equipment by construction phase, the construction haul trips and length of trip by construction phase, and project dimensions. The revisions in the Recirculated Draft EIR are as follows (new text is underlined and ~~strikethrough~~ is used for deleted text):

"The primary elements of the MRF/TS and Fueling Facility/Convenience Store project, including the perimeter fencing and landscaping, internal site paving and construction of buildings would be constructed in a single phase estimated to require 18 months. The City recognizes that the main MRF/TS building may be developed incrementally in response to capacity needs and market demand. Construction of the Proposed Project would commence in 2017~~6~~. An average daily construction crew of 84 employees would be present on-site during construction. **Table 3.3-5** provides the estimated construction schedule for each phase: demolition, site preparation, grading, building construction, paving, and coating.

Table 3.3-5 Estimated Construction Schedule

Phase	Description	Start	End	Days
1	Demolition	1/1/2015	1/28/2015	20
2	Site Preparation	1/29/2015	2/11/2015	10
3	Grading	2/12/2015	3/25/2015	30
4	Building Construction	3/26/2015	5/5/2016	291
5	Paving	5/6/2016	6/2/2016	20
6	Architectural Coating	6/3/2016	6/30/2016	20
SOURCE: CARB CalEEMod, 2013.				

Construction activities would include equipment such as loaders, excavators, pavers, and haul trucks. **Table 3.3-6** provides a list of expected construction equipment by construction phase.

Table 3.3-6 Construction Equipment

Phase	Equipment	Amount	Daily Hours	HP	Load Factor
Demolition	Concrete/Industrial Saws	1	8	81	0.73
Demolition	Excavators	3	8	162	0.38
Demolition	Rubber Tired Dozers	2	8	255	0.40
Site Preparation	Rubber Tired Dozers	3	8	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8	97	0.37
Grading	Excavators	2	8	162	0.38
Grading	Graders	1	8	174	0.41
Grading	Rubber Tired Dozers	1	8	255	0.40
Grading	Scrapers	2	8	361	0.48
Grading	Tractors/Loaders/Backhoes	2	8	97	0.37
Building Construction	Cranes	1	7	226	0.29

Building Construction	Forklifts	3	8	89	0.20
Building Construction	Generator Sets	1	8	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7	97	0.37
Building Construction	Welders	1	8	46	0.45
Paving	Pavers	2	8	125	0.42
Paving	Paving Equipment	2	8	130	0.36
Paving	Rollers	2	8	80	0.38
Architectural Coating	Air Compressors	1	6	78	0.48
SOURCE: CARB CalEEMod, 2013.					

As the project site is clear of structures, minimal demolition would be required. Secondly, the project site is level and thus, minimal site preparation and grading would be required. Site preparation would consist of land clearing and grubbing, haul truck trips would likely be required to export the materials from the project site. Based on the information provided in the Preliminary Grading Plan, a total of 15,000 cubic yards of soil export is anticipated during construction. **Table 3.3-7** provides a list of the expected trips and trip lengths by construction phase.

Table 3.3-7 Construction Trips and Trip Lengths

Phase	Worker Trips	Vendor Trips	Haul Truck Trips	Worker Trip Length (mile)	Vendor Trip Length (mile)	Haul Trip Length (mile)
Demolition	15	0	0	14.7	6.9	20.0
Site Preparation	18	0	0	14.7	6.9	20.0
Grading	20	0	1,875	14.7	6.9	20.0
Building Construction	128	50	0	14.7	6.9	20.0
Paving	15	0	0	14.7	6.9	20.0
Architectural Coating	26	0	0	14.7	6.9	20.0
SOURCE: CARB CalEEMod, 2013.						

The project site consists of approximately 17 acres. For purposes of estimating project site grading emissions, **Table 3.3-8** provides a list of land uses, footprint, and acreage. The construction emissions inventory also accounts for asphalt paving off-gassing emissions associated with construction of parking lots and other outdoor paved areas."

Table 3.3-8 Project Land Use Dimensions

Land Use	Size	Acreage
MRF/TS	244,617 square feet	15.85
Convenience Store with Service Station	2,390 square feet	0.05
Parking Lot	147 spaces	1.32

Appendix C in the Recirculated Draft EIR includes the CalEEMod output files for the annual condition and the daily maximum conditions for the winter and summer. The construction emissions were based on the CalEEMod output files.

Response 13-13: See Response to Comment 13-12.

Response 13-14: See Response to Comment 13-12.

Response 13-15: The THRESHOLD AQ-1 discussion in the Draft EIR was revised (further documenting mitigation measures and emission reduction efficiency) in the Recirculated Draft EIR on pages 3.3-29 through 3.3-34 as follows (new text is underlined and ~~strikethrough~~ is used for deleted text):

"It is mandatory for all construction projects in the South Coast Air Basin to comply with SCAQMD Rule 403 for fugitive dust. Specific Rule 403 control requirements include, but are not limited to, applying water in sufficient quantities to prevent the generation of visible dust plumes, applying soil binders to uncovered areas, reestablishing ground cover as quickly as possible, utilizing a wheel washing system to remove bulk material from tires and vehicle undercarriages before vehicles exit the project site, and maintaining effective cover over exposed areas.

Erosion control measures and water programs are typically undertaken to minimize these fugitive dust and particulate emissions. A dust control efficiency of 75 percent due to daily watering and other measures was estimated. Application of water reduces fugitive dust emissions by a factor of approximately 34 to 68 percent (per SCAQMD *CEQA Air Quality Handbook*). It is assumed that one water application per day reduces fugitive dust by 34 percent, two water applications per day reduces fugitive dust by 50 percent, and three water applications per day reduces fugitive dust by 68 percent. Applying soil stabilizers to inactive areas reduces fugitive dust by 84 percent. Additional measures would allow for a total fugitive dust control efficiency of at least 75 percent and compliance with SCAQMD Rule 403.[17] Furthermore, application of appropriate emission control devices, the use of newer equipment, or other exhaust mitigation measures would reduce exhaust particulate matter by 50 percent.

Construction emission mitigation measures for fugitive dust were included as **MM AQ-1** per SCAQMD Rule 403. Within CalEEMod specific mitigations measures and control efficiencies include soil stabilizer for unpaved roads (84 percent), replace ground cover of area disturbed (5 percent), water exposed area with frequency of three times daily (61 percent), and limited vehicle speed on unpaved roads to 15 mph.

NO_x, ROG, PM_{10}, $PM_{2.5}$, and CO construction emissions for the Proposed Project were estimated for a worst-case day based on maximum crew and truck trips. Emissions are based on criteria pollutant emission factors from CalEEMod.

[17] South Coast Air Quality Management District, Table XI-B - *Mitigation Measures Examples: Fugitive Dust From Material Handling* and *WRAP Fugitive Dust Handbook*, September 7, 2006 (http://www.wrapair.org/forums/dejf/fdh/content/FDHandbook_Rev_06.pdf

As shown in **Table 3.3-9~~3.3-4~~**, the estimated maximum daily ROG emissions, for all construction related emissions (including combustion engines and evaporative emissions) without mitigation, would be greater than the significance criteria. Thus, construction-related ROG emissions would be potentially significant without mitigation. Of note, over 95 percent of the ROG emissions would occur during the application of architectural coatings. Without mitigation, the estimated maximum daily NO_x, CO, PM_{10}, and $PM_{2.5}$ would not exceed the SCAQMD threshold and would not conflict with or obstruct implementation of the applicable air quality plan or violate any air quality standards or contribute substantially to an existing or projected air quality violation.

Table 3.3-10~~3.3-5~~ displays the maximum daily mitigated emissions for all construction related emissions, (including from dust, combustion engines and evaporative emissions). With mitigation, the estimated maximum daily ROG would not exceed the SCAQMD threshold and would not conflict with or obstruct implementation of the applicable air quality plan or violate any air quality standards or contribute substantially to an existing or projected air quality violation."

Table 3.3-9~~ 3.3-4~~ Estimated Worst Case Daily Unmitigated Emissions from Project Construction (Pounds per Day)

Construction Year	ROG	NOx	CO	PM_{10}	$PM_{2.5}$	SO_2
2015	8.2 ~~5.3~~	99.5 ~~57.0~~	67.1 ~~43.9~~	21.4	12.8	0.1
Significant (Yes or No)?	No	No	No	No	No	No
2016	**289** **~~375~~**	33.7 ~~34.0~~	32.1 ~~32.9~~	3.8 ~~3.90~~	2.4 ~~2.42~~	0.1
Significant (Yes or No)?	**Yes**	No	No	No	No	No
SCAQMD Thresholds of Significance	75	100	550	150	55	150

NOTE: Values in **bold** are in excess of the applicable SCAQMD significance threshold.

SOURCE: KB Environmental Sciences, Inc., 2014.

Table 3.3-10~~ 3.3-5~~ Estimated Worst Case Daily Mitigated Emissions From Project Construction (Pounds Per Day)

Construction Year	ROG	NOx	CO	PM_{10}	$PM_{2.5}$	SO_2
2015	3.3 ~~2.3~~	71.4 ~~34.5~~	54.2 ~~33.6~~	7.9 ~~8.9~~	4.7 ~~5.3~~	0.1
Significant (Yes or No)?	No	No	No	No	No	No
2016	11.8 ~~15.2~~	28.6 ~~29.0~~	31.5 ~~32.2~~	2.7 ~~2.8~~	1.4 ~~1.58~~	0.1
Significant (Yes or No)?	No	No	No	No	No	No
SCAQMD Thresholds of Significance	75	100	550	150	55	150
NOTE: Values in **bold** are in excess of the applicable SCAQMD significance threshold. *SOURCE: KB Environmental Sciences, Inc., 2014.*						

See Response to Comment 13-4 for further details on estimate emission reduction efficiency for construction mitigation measures and a listing of mitigation measures associated with construction activities.

Response 13-16: See Response to Comment 13-15; **MM AQ-7 through AQ-9** provide additional mitigation of combustion emissions from construction activities. These mitigation measures in the Draft EIR were revised in the Recirculated Draft EIR on page 3.3-33 as follows (new text is underlined and ~~strikethrough~~ is used for deleted text):

"**MM AQ-7~~9~~**

Older (prior to 2010 model year) construction equipment shall be retrofitted with appropriate emission control devices (Tier 2 or better) prior to onsite use.

MM AQ-8

The project shall develop a plan demonstrating that the off-road equipment (more than 50 horsepower) to be used in the construction project (i.e., owned, leased, and subcontractor vehicles) would achieve a project wide fleet-average 20 percent NO_x reduction and 85 percent PM reduction compared to the most recent CARB fleet average (i.e., Tier 2 equipment or better). Acceptable options for reducing emissions include the use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, add-on devices such as particulate filters, and/or other options as such are available.

MM AQ-9~~10~~

All construction vehicles, both on- and off-site, and construction equipment idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations). ~~Clear signage shall be provided for construction workers at all access points.~~ The construction contractor shall post visible signage within construction

equipment operator components notifying equipment operators of the prohibiting against idling in excess of five minutes. The construction contractor shall provide awareness training to equipment operators regarding idling limits."

Response 13-17: See Response to Comment 13-4 and 13-16.

Response 13-18: The Draft EIR used a very conservative baseline of air emissions for the Proposed Project. However, the SCAQMD noted that while many MRF projects in the region were using similar baselines, the SCAQMD would like the project to consider 100 percent of vehicle trips to be considered "new trips". The air quality analysis has been revised to evaluate the project using this approach and consequently the regional air quality emissions are estimated to be higher than the emissions estimated in the Draft EIR (that considered 50 percent of the emissions to be re-directed emissions within the basin and thus estimated lower "net" new emissions). It should be noted that this change in the evaluation of regional emissions did not alter the assessment of local emissions, because the air quality analysis in the Draft EIR evaluated 100% of vehicle trips to the Proposed Project site as new local emissions.

See also Response to Comment 13-5.

Response 13-19: The discussion in the Draft EIR was revised in the Recirculated Draft EIR on pages 3.3-42 as follows (new text is underlined and ~~strikethrough~~ is used for deleted text):

"Although difficult to accurately measure (and therefore not quantified for this analysis), the Proposed Project is reasonably expected to reduce the amount of material (greater sorting and recycling capabilities) sent to regional landfills, thus reducing landfill emissions and truck traffic. The regional efficiencies would reduce both criteria pollutants and GHG emissions below what is stated in this analysis because existing transfer trucks occur between an existing transfer station and landfill. ~~These proposed trips would be shorter in distance due to the Proposed Project's central location and the higher volume of material captured for recycling. As shown in **Table 3.3-6,** the average distance traveled for the Baseline Condition (Grand Central TS and Athens Services MRF) is 18.1 and 13.4 miles while the average distance traveled for the Proposed Project is 9.1 miles.~~"

Response 13-20: See Response to Comment 13-4.

Response 13-21: To address the current applicant inventory of CNG solid waste trucks, the discussion in the Draft EIR was revised in the Recirculated Draft EIR on page 3.3-39 as follows (new text is underlined and ~~strikethrough~~ is used for deleted text):

"SCAQMD Rule 1193 (Clean On-Road Residential and Commercial Refuse Collection Vehicles) requires public and private solid waste collection fleet operators to acquire alternative-fuel solid waste collection, roll-off, or transfer trucks when procuring or leasing these vehicles for use by or for governmental agencies. According to data received from the Project Applicant, approximately 68 ~~58~~ percent of the trucks operated by the Applicant are ~~will be~~ fueled by ~~compressed natural gas (~~CNG~~)~~ in 2014~~and 59 percent in 2015~~. As new trucks are procured or replaced, they must comply with the requirements of Rule 1193. ~~This analysis accounts for 58 percent of existing solid waste~~

~~collection trucks (both owned by the Project Applicant and third parties) being CNG fueled. It is assumed that outbound transfer trucks would be diesel fueled. Compared to diesel trucks, NO_X emissions are reduced by approximately 25 percent, and PM_{10} and $PM_{2.5}$ emissions by 15 percent for CNG trucks. EMFAC2011 provides diesel and gasoline emission factors only.~~"

The discussion in the Draft EIR was revised in the Recirculated Draft EIR on pages 3.3-46 and 3.3-47 to address additional mitigation measure for CNG trucks. Revision as follows (new text is underlined and ~~strikethrough~~ is used for deleted text):

"**Mitigation Measures Found Infeasible**

The use of alternative fueled solid waste and transfer trucks (i.e., compressed natural gas) will be required pursuant to SCAQMD Rule 1193 for the applicant's vehicles. An Alternatively Fueled Heavy Duty Vehicle, as defined in SCAQMD Rule 1193, means a heavy-duty vehicle or engine that uses compressed liquefied natural gas, liquefied petroleum gas, methanol, electricity, fuel cells, or other advanced technology that does not rely on diesel fuel. These vehicles generate approximately ~~46~~ 25 percent fewer NO_x emissions than average heavy duty fueled trucks. Particulate matter emissions for the alternatively fueled trucks are approximately ~~42~~ 15 percent lower than average heavy duty trucks.

Requiring the applicant to limit all transfer trucks and solid waste vehicles that use the Project site and facilities to alternative fuel vehicles, could potentially further reduce significant impacts from ~~ROG and~~ NO_x emissions from the Proposed Project. However, the use and/or purchase of all alternative fueled vehicles beyond what is required by Rule 1193 as part of this Proposed Project is infeasible due to the high cost of refuse collection vehicles and existing requirement that alternatively fueled vehicles replace existing vehicles to comply with the SCAQMD Rule 1193. The SCAQMD rule considers what is economically feasible for purposes of imposing Rule 1193 on solid waste operators. For example, Rule 1193 includes provisions for economic hardship of small private fleet operators that can allow two one-year extensions to acquire rule compliant vehicles. Also, the transfer trucks are still primarily diesel fueled because at this time there are no suppliers that can deliver feasible alternatives (alternative-fueled transfer trucks). Rule 1193 requires fleet operators to go through a procurement process for alternative-fueled transfer trucks, but bids generally are not responded to because alternative-fueled vehicles don't meet other bid specifications (Cole, 2014). The process is outlined in Rule 1193 (f)(3)(A). As alternative-fueled vehicles with appropriate specification needed for transfer trucks become available, Rule 1193 requirements will assure that fleets will be added these vehicles for future replacements.

Additionally, requiring third party collection trucks that utilize the facility, beyond the requirements they have to comply with under Rule 1193, to be alternatively fueled would foreseeably result in an increase in emissions. Rather than converting their trucks to alternative fuels, third parties would likely choose to travel to the next closest facility (which potentially will result in increased trip lengths and air emissions) that does not have this requirement rather than using the Proposed Project even if it is more convenient with a short travel distance. In this instance, emissions may increase due to a longer travel distance. Nevertheless, compliance with Rule 1193 will reduce emissions. If the third parties contract with governmental agencies in the future they would be subject to the requirements set forth in SCAQMD Rule 1193. Based upon the previous information, requiring more solid waste and transfer trucks to be alternative fuel than what is already required under the SCAQMD ~~Air District~~ rules is not considered economically, socially or environmentally feasible.

MM AQ-12~~13~~ through AQ-18~~19~~ are not expected to reduce impacts from ROG and NO_x emissions to less than significant and no additional feasible mitigation measures have been identified to reduce ROG and NO_x emissions to a less than significant level. Based upon this, it is reasonably foreseeable that the Proposed Project will conflict with or obstruct implementation of the applicable air quality plan (SCAQMD 2012 AQMP) and violate any air quality standards or contribute substantially to an existing or projected air quality violation of SCAQMD."

Response 13-22: See Response to Comment 13-21.

Response 13-23: See also Response to Comment 13-4 related to modifications to mitigation measures.

The discussion of THRESHOLD AQ-3 in the Draft EIR was revised to address requirements of the LST analysis in the Recirculated Draft EIR on pages 3.3-47 through 3.3-49.

Response 13-24: The discussion of the intersection analysis in THRESHOLD AQ-4 in the Draft EIR was revised in the Recirculated Draft EIR on pages 3.3-52 through 3.3-55. The Recirculated Draft EIR was revised to include a more comprehensive discussion of CO intersection assessment and to include a discussion of PM10/PM2.5 intersection assessment. The Recirculated Draft EIR includes the criteria under which a quantitative CO and/or PM10/PM2.5 analysis is required and the results of the intersection analysis. The criteria for a CO intersection analysis is based on the change in intersection Level of Service while the criteria for a PM10/PM2.5 intersection analysis is based on the type of project and the percentage of diesel vehicles within the intersection network.

Response 13-25: See Response to Comment 13-24.

Response 13-26: The text in the Draft EIR was revised in the Recirculated Draft EIR (page 3.3-57) to add information on TAC effects from construction as follows (new text is underlined and ~~strikethrough~~ is used for deleted text):

"During construction activities, the maximum incremental cancer risks from all trucks using the MRF/TS and the service station would be 0.2 (residential adult receptor), 2.3 (residential child receptor), and less than 0.1 (school children receptor) cancers per million, which are less than the SCAQMD significance threshold of 10 in one million."

Response 13-27: To address this comment, the discussion in the Draft EIR was revised in the Recirculated Draft EIR on page 3.3-57 as follows (new text is underlined and ~~strikethrough~~ is used for deleted text):

"Exposure to non–carcinogenic substances would be significant if the Hazard Index (HI) exceeds 1.0. The Hazard Index is the ratio of a hazardous air pollutant concentration to its Reference Concentration, or safe exposure level. If this "hazard index" exceeds one, people are exposed to levels of hazardous air pollutants that may pose non-cancer health risks. The maximum chronic hazard index is less than 0.01 ~~0.04~~ and thus less than significant. The maximum acute hazard index; including the recreational user within the Santa Fe Dam area, is ~~0.16~~ less than 0.01 and thus less than significant."

Response 13-28: To clarify that the zone of impact is the area within three kilometers of the Proposed Project, the discussion in the Draft EIR was revised in the Recirculated Draft EIR on pages 3.3-55 and 3.3-56 as follows (new text is underlined and ~~strikethrough~~ is used for deleted text):

"A cancer burden analysis is a form of population-level risk evaluation that is commonly used for risk communication purposes to provide perspective on the magnitude of the potential public health impacts posed by a facility. The cancer burden was estimated following methods recommended in OEHHA guidance. The cancer burden for each of these receptors is calculated by multiplying the cancer risk by the residential population at each receptor. The total cancer burden is the sum of the cancer burden for each of the census receptors. The results of the cancer burden analysis provide an estimate of the number of excess cancer cases in the exposed population expected from lifetime (70-year) exposure to proposed facility emissions. The results of the cancer burden analysis indicate that less than one case (0.014~~0.005~~) of cancer would be expected within three kilometers of the Proposed Project ~~the zone of impact~~. A value of 0.5 is considered significant by the SCAQMD. Therefore, the Proposed Project would have a less than significant impact towards the cancer burden."

Response 13-29: Appendix C was revised in the Recirculated Draft EIR, to document the calculation of non-cancer health impacts as follows:

"The Hazard Index is an expression used for the potential for non-cancer health effects. The relationship for the non-cancer health effects is given by the annual concentration ($\mu g/m^3$) and the Reference Exposure Level ($\mu g/m^3$).

The relationship for the non-cancer health effects of DPM is given by the following equation:

$HI_{DPM} = C_{DPM}/REL_{DPM}$

where,

HI_{DPM}	Hazard index; an expression of the potential for non-cancer health effects.
C_{DPM}	Annual average DPM concentration ($\mu g/m^3$) during the 70 year exposure period
REL_{DPM}	Reference exposure level (REL) for DPM; the DPM concentration at which no adverse health effects are anticipated.

The chronic reference exposure level for DPM was established by the OEHHA as 5 $\mu g/m^3$. Other air toxics such as benzene and 1,3-butadiene, emitted as part of the fuel dispensing station were also included."

Response 13-30: In addition to the On-site Management Plans and the SCAQMD Rule 410 requirements, MM AQ-19 through MM AQ-21 (see pages 3.3-65 and 66 of the Recirculated Draft EIR) will be required to further assure that with mitigation there will be no significant odor impacts. The text in the Draft EIR was revised in the Recirculated Draft EIR on pages 3.3-65 and 3.3-66, adding additional discussion to clarify odor reduction measures as follows:

"MM AQ-19~~21~~

Applicant shall minimize odors during operation of the MRF/TS by properly maintaining design features and equipment designed to reduce and eliminate odors and pursuant to provisions of SCAQMD Rule 410.

MM AQ-20~~22~~

On-Site Management Plan No. 3, Athens Services Odor Control Program shall include a requirement that any and all odor complaints shall be referred directly to the City of Irwindale Community Development Department Code Enforcement Division. Odor complaints shall be substantiated by the City as follows:

a. Inspection and confirmation by Code Enforcement Division Staff; and/or

b. Inspection and confirmation by the SCAQMD; and/or

c. A qualified consultant, as determined and selected by the City, will be retained to collect samples to quantify odor intensity using a Nasal Ranger or other comparable instrument. Such consultant shall be retained by the City at the sole expense of the Applicant.

Facility representatives shall conduct an odor survey as soon as practical, but not to exceed 2 hours after receiving an odor complaint or notification from the SCAQMD or the LEA. Upon substantiation of an odor complaint, Applicant shall meet with the City within 48 hours to determine actions to remedy the odor complaint. A detailed action plan shall be prepared within 72 hours of the meeting identifying the steps to be taken to remedy the issue. All remedies shall be at the sole expense of the Applicant, and shall be implemented / installed as soon as feasible.

MM AQ-21~~23~~

As a means to address public concerns and complaints regarding odors, the Project Applicant shall publicly post the SCAQMD odor complaint phone number **[1-800-CUT-SMOG (1-800-288-7664)]** and website address (http://www.aqmd.gov/complain/reporting_aq_problems.html) on signs that are visible from the street at all entrances to the MRF/TS facility.

Based upon the proposed project's required compliance with SCAQMD Rule 410, required implementation of the On-Site Management Plans, and imposition of **MM AQ-19 ~~21~~** through **AQ-21 ~~23~~** as required measures to control odors and emissions, the Proposed Project is not expected to generate significant odors. Thus, it is determined that the Proposed Project would not create odors affecting a substantial amount of people and this impact would be less than significant with mitigation."

Response 13-31: The mitigation will reduce the potential impact to less than significant. The discussion in the Draft EIR was revised in the Recirculated Draft EIR beginning on page 3.3-68 as follows (new text is underlined and ~~strikethrough~~ is used for deleted text):

"For the Proposed Project, the City is adopting the SCAQMD, 10,000 MT CO_2e per year industrial project screening threshold as the significance threshold in addition to the qualitative thresholds of significance from *Section VII of Appendix G to the CEQA Guidelines*. The methodology

recommends that total construction emissions be amortized over a 30-year period or the project's expected lifetime if it is less than 30 years. Four types of analyses were used to determine whether the Proposed Project would be in conflict with the goals for reducing GHG emissions. The analyses are reviews of:

a. The potential conflicts with the CARB' thirty-nine (39) recommended actions identified in **Table 3.3-14 List of Recommended Actions by Sector**;

b. The proposed project emissions compared to the SCAQMD significance threshold of 10,000 MT CO_2e per year; and

c. The basic parameters of a project to determine whether its design is inherently energy efficient, will lead to wasteful energy use, or is neutral with regard to future energy use.

d. Potential conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

With regard to Item a., the project does not pose any apparent conflict with the CARB recommended actions listed in **Table 3.3-14 List of Recommended Actions by Sector**. Of note, the project would help achieve Measure RW-3, which promotes high-recycling.

With regard to Item b., ~~baseline operational GHG emissions would be approximately 21,152 25,840 metric tons of CO_2e per year and~~ the Proposed Project construction plus operational GHG emissions would be approximately ~~52,665~~ 58,834 metric tons of CO_2e per year. ~~(See Appendix C). Thus, the Project-related operational GHG emissions would be approximately 31,513 32,963 metric tons of CO_2e per year.~~ The Proposed Project would be classified as potentially significant (greater than 10,000 metric tons of CO_2e per year SCAQMD significance threshold). The construction emissions would be approximately ~~686~~ 940 metric tons CO_2e (or ~~23~~ 31 metric tons CO_2e amortized over 30 years) ~~and would not be considered significant under the SCAQMD threshold~~.

MM AQ-22~~24~~:

The Project Applicant shall purchase verifiable and certified GHG offset credits and provide verification to the City of the purchase annually. Off-set credits shall be purchased in an amount that is based on one of the following:

(1) Offset-credits for ~~21,152~~ 48,803 metric tons or,

(2) Offset-credits in an amount computed on the basis of the Project's actual GHG emissions the previous year ~~compared to actual Project-related emissions~~ compared to emissions from the 2013 baseline condition ~~[what MRF was used in 2013]~~ minus 10,000 metric tons of CO_2e per year. The calculation must be prepared and certified by a professional Air Pollution expert, acceptable to the City as determined by the Director of Community Development.

When feasible, offset purchases would be prioritized by proximity to the Project Site, with greatest preference given to projects within the jurisdictional boundaries of the SCAQMD, then California, and then finally nationally. Carbon offsets are widely available in a number of markets (e.g., GreenX and IntercontinentalExchange) and exists at levels that greatly exceed the potential needs of the Proposed Project."

Response 13-32: Operational GHG emissions occur as a result of truck trips, truck idling, onsite equipment, employee trips, and supporting operations. The following table (based on EMFAC, OFFROAD, and CaLEEMod emission models) shows the distribution of GHG emissions per project element.

Project Element	CO2e
Truck Idle	352
Collection Trucks (Local)	20,740
Transfer Trucks to Landfill	13,356
Transfer Trucks to Recycling	9,165
Transfer Trucks to Composting	10,682
Self-Haul Trucks	946
Employee Vehicles	1,501
On-site Equipment	154
Convenience Store	1,653
Area Sources	256
Total Proposed Project[18]	**58,803**
Significant (Yes or No)?	Yes
SCAQMD Thresholds of Significance	10,000

Construction GHG emissions were based on the CaLEEMod and includes as part of Appendix C. Operational GHG emissions were based on CARB's EMFAC2011 and OFFROAD2011 emission factors and activity levels documented in the EIR. Appendix C contains the information, methodology, and assumptions used in the GHG emission inventory.

The discussion in the Draft EIR was revised in the Recirculated Draft EIR on page 3.3-68 as follows (new text is underlined and ~~strikethrough~~ is used for deleted text):

"With regard to Item b., ~~baseline operational GHG emissions would be approximately 21,152 25,840 metric tons of CO_2e per year and~~ the Proposed Project construction plus operational GHG emissions would be approximately ~~52,665~~ 58,834 metric tons of CO_2e per year. ~~(See Appendix C). Thus, the Project-related operational GHG emissions would be approximately 31,513 32,963 metric tons of CO_2e per year.~~ The Proposed Project would be classified as potentially significant (greater than 10,000 metric tons of CO_2e per year SCAQMD significance threshold). The construction emissions would be approximately ~~686~~ 940 metric tons CO_2e (or ~~23~~ 31 metric tons CO_2e amortized over 30 years) ~~and would not be considered significant under the SCAQMD threshold~~.

As with the criteria pollutants, the representation of the truck trips as all new trips results in a ~~is a Baseline Condition represents a~~ very conservatively high ~~low~~ estimate of emissions~~, which results in a conservatively higher estimate in Project-related emissions (i.e., Proposed Project minus~~

[18] ~~No differences were found in the Project Variant compared to the Project.~~

~~Baseline)~~. That is, estimated maximum throughp~~o~~ut for the Baseline Condition is 4,360 tons per day (based on market share, waste amounts, and trip distances) but conservatively evaluated at 0 ~~2,180~~ tons per day. Therefore, it is not expected that the Proposed Project will, in fact, result in 58,803 ~~31,513~~ metric tons of CO_2e per year. Nevertheless ~~Based on this~~, the City will be requiring the applicant to purchase carbon offset credits to reduce the expected GHG emissions to less than significant level, but will allow the applicant an opportunity to demonstrate that the Proposed Project produces less GHG emissions than estimated by the conservative analysis provided ~~above~~."

See also the Recirculated Draft EIR information on page 3.3-22 as follows:

At the most recent meeting of the SCAQMD GHG working group (September 2010), SCAQMD staff recommended extending the 10,000 MT CO_2e per year industrial project threshold for use by all lead agencies. SCAQMD staff also stated that they are no longer proposing to include a 25,000 MT CO_2e per year maximum emissions requirement for compliance with Tier 4. Staff indicated that they hoped to bring the proposed GHG significance thresholds to the board for their December 2010 meeting; however, this did not occur.

For the proposed project, the 10,000 MT CO_2e per year industrial project screening threshold is used as the significance threshold in addition to the qualitative thresholds of significance from section VII of Appendix G to the CEQA Guidelines. The methodology recommends that total construction emissions be amortized over a 30-year period or the project's expected lifetime if it is less than 30 years. Although the SCAMQD's 10,000 MT CO_2e per year screening threshold initially applied to stationary sources, discussions at the last GHG working group meeting indicated that this threshold would be utilized for all industrial related emissions that include both stationary and mobile sources.

Response 13-33: See Response to Comment 13-31. GHG offset credits will be purchased annually to offset all emissions over the significance threshold.

Response 13-34: See Response to Comment 13-31.

To assess air quality impacts from off-site vehicle emissions that will foreseeably result from the Project, the Draft EIR published in April 2014 assumed a baseline condition that took into consideration these existing relocated emissions. However, to be extremely conservative and to avoid under-representing any potential air quality impacts from the Proposed Project, the City has analyzed all the trips to be new trips in this Recirculated Draft EIR.

Response 13-35: See Response to Comment 13-31.

Response 13-36: A qualitative discussion of the potential impacts of the traffic mitigation implementation (MM T-1 and MM T-2) was included in the Recirculated Draft EIR (page 3.3-69).

Response 13-37: Some of the potential cumulative impacts associated with the Proposed Project are more localized in nature and, thus, are analyzed at a project level (for example: cultural resources, geology and soils, noise). Other cumulative impacts are regional in nature and are, therefore, analyzed at a regional level rather than at a project level (for example, air quality, greenhouse gas emissions). As such, these impacts are evaluated on a regional basis to analyze

potential cumulative impacts. Projects that may have a cumulative effect on the resources of this area are referred to as "related projects" in this cumulative impacts analysis. The "Cumulative Project List" was used as the basis of determining whether implementation of the Proposed project could result in incremental impacts that would be "cumulatively considerable" when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects (as defined by §15130).

As defined in the State CEQA Guidelines §15355, a cumulative impact consists of an impact that is created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts. The State CEQA Guidelines require the use of a list of past, present, and probable future projects and/or the use of adopted projections from a general plan, other regional planning document, or a certified EIR for such a planning provides the list of approved, proposed, and reasonably foreseeable projects used in the cumulative analysis.

Both the severity of impacts and the likelihood of their occurrence are to be reflected in the discussion, "but the discussion need not provide as great detail as is provided for the effects attributable to the project alone. The discussion of cumulative impacts shall be guided by standards of practicality and reasonableness, and shall focus on the cumulative impact to which the identified other projects contribute rather than the attributes of other projects which do not contribute to the cumulative impact." 14 Cal Code Regs §15130(b). Most of the cumulative projects are, or will be, required to undergo their own independent environmental review under CEQA. Significant adverse impacts of the cumulative projects would be required to be reduced, avoided or minimized through the application and implementation of mitigation measures. The net effect of these mitigation measures is assumed to be a general lessening of the potential for a contribution to cumulative impacts. The key consideration is whether the remaining physical change or effect on the environment represents an adverse environmental impact.

Response 13-38: The maximum SO_2 concentrations recorded in the project area are well below federal and State standards; as a result, the area is in attainment status with both federal and State SO_2 standards.

With regard to SO_2 emissions from construction activities and results from the CaLEEMod, the Draft EIR was revised in the Recirculated Draft EIR on pages 3.3-30 and 31 as follows (new text is underlined and ~~strikethrough~~ is used for deleted text):

"As shown in **Table 3.3-9~~3.3-4~~**, the estimated maximum daily ROG emissions, for all construction related emissions (including combustion engines and evaporative emissions) without mitigation, would be greater than the significance criteria. Thus, construction-related ROG emissions would be potentially significant without mitigation. Of note, over 95 percent of the ROG emissions would occur during the application of architectural coatings. Without mitigation, the estimated maximum daily NO_x, CO, PM_{10}, and $PM_{2.5}$ would not exceed the SCAQMD threshold and would not conflict with or obstruct implementation of the applicable air quality plan or violate any air quality standards or contribute substantially to an existing or projected air quality violation. Based on the above, the Project would cause significant impacts from ROG emissions.

Table 3.3-10~~3.3-5~~ displays the maximum daily mitigated emissions for all construction related emissions, (including from dust, combustion engines and evaporative emissions). With mitigation, the estimated maximum daily ROG would not exceed the SCAQMD threshold and would not

conflict with or obstruct implementation of the applicable air quality plan or violate any air quality standards or contribute substantially to an existing or projected air quality violation."

~~3.3-4~~ Estimated Worst Case Daily Unmitigated Emissions from Project Construction (Pounds per Day)

Construction Year	ROG	NOx	CO	PM_{10}	$PM_{2.5}$	SO_2
2015	8.2 ~~5.3~~	99.5 ~~57.0~~	67.1 ~~43.9~~	21.4	12.8	0.1
Significant (Yes or No)?	No	No	No	No	No	No
2016	**289** ~~**375**~~	33.7 ~~34.0~~	32.1 ~~32.9~~	3.8 ~~3.90~~	2.4 ~~2.42~~	0.1
Significant (Yes or No)?	**Yes**	No	No	No	No	No
SCAQMD Thresholds of Significance	75	100	550	150	55	150

NOTE: Values in **bold** are in excess of the applicable SCAQMD significance threshold.
SOURCE: KB Environmental Sciences, Inc., 2014.

~~3.3-5~~ Estimated Worst Case Daily Mitigated Emissions From Project Construction (Pounds Per Day)

Construction Year	ROG	NOx	CO	PM_{10}	$PM_{2.5}$	SO_2
2015	3.3 ~~2.3~~	71.4 ~~34.5~~	54.2 ~~33.6~~	7.9 ~~8.9~~	4.7 ~~5.3~~	0.1
Significant (Yes or No)?	No	No	No	No	No	No
2016	11.8 ~~15.2~~	28.6 ~~29.0~~	31.5 ~~32.2~~	2.7 ~~2.8~~	1.4 ~~1.58~~	0.1
Significant (Yes or No)?	No	No	No	No	No	No
SCAQMD Thresholds of Significance	75	100	550	150	55	150

NOTE: Values in **bold** are in excess of the applicable SCAQMD significance threshold.
SOURCE: KB Environmental Sciences, Inc., 2014.

With regard to SO_2 emissions from operations and results from EMFAC and OFFROAD, the text in the Draft EIR was revised in the Recirculated Draft EIR on page 3.3-40 to show SO2 emissions. The revision is as follows (new text is underlined and ~~strikethrough~~ is used for deleted text):

"All of the emissions from operations of the Proposed Project, off-site vehicle, on-site idling, on-site heavy equipment, the service station and the area source emissions were calculated in the air study provided in **Appendix C**. The Proposed Project unmitigated emissions are provided in **Table 3.3-13~~9~~.** The Proposed Project Variant unmitigated emissions are provided in **Table 3.3-14.** The Project Variant involves storage of 23 transfer trucks offsite. Notably, the SO_2 emissions are less than one pound per day a result of ultra-low sulfur diesel. Diesel fuel does not contain lead emissions and gasoline fuel is unleaded."

Response 13-39: The Water District has withdrawn its proposal to acquire 1.9 acres of the site, and therefore, the Project Variant has been eliminated as an alternative.

Response 13-40: Information on volatile organic compounds and reactive organic gases was added within the criteria pollutant descriptions in the Recirculated Draft EIR on page 3.3-5.

Response 13-41: To add information on ambient NO_2 background concentrations the Draft EIR was revised in the Recirculated Draft EIR (Table 3.3-1, page 3.3-3) as follows (new text is underlined and ~~strikethrough~~ is used for deleted text):

Table 3.3-1 Air Quality Data Summary (2010 - 2012)

Pollutant	Monitoring Data by Year			
	Standard[a]	2010	2011	2012
Nitrogen Dioxide				
Highest 1 Hour Average (ppm)[b]	0.180	0.077	0.080	0.072
Days over State Standard		0	0	0
Highest 1 Hour 98th percentile (ppm)[b]	0.100	0.060	0.065	0.062
Days over National Standard		0	0	0
Annual Average (µg/m^3)[b]	0.030/0.053	0.019	0.019	0.020

NOTES: Values in **bold** are in excess of at least one applicable standard. NA = Not Available.

a. Generally, state standards and national standards are not to be exceeded more than once per year.
b. ppm = parts per million; µg/m3 = micrograms per cubic meter.
c. PM_{10} is not measured every day of the year. Number of estimated days over the standard is based on 365 days per year.

Source: USEPA (http://www.epa.gov/air/data/) CARB Air Quality Data Statistics (http://www.arb.ca.gov/adam/welcome.html, 2010–2012.

Response 13-42: Compliance with all applicable provisions of Rule 410 is required by SCAQMD regulations.

Response 13-43: The Draft EIR was revised in the Recirculated Draft EIR on page 3.3-21 to add information on the First Update to the Climate Change Scoping Plan. The revision is as follows (new text is underlined and ~~strikethrough~~ is used for deleted text):

"In October 2013, the CARB submitted the First Update to the Climate Change Scoping Plan for public review and comment. The First Update to the Scoping Plan was approved by the CARB on May 22, 2014 and builds upon the initial Scoping Plan with new strategies and recommendations. The First Update identifies opportunities to leverage existing and new funds to further drive GHG emission reductions through strategic planning and targeted low carbon investments. The First Update defines CARB's climate change priorities for the next five years, and also sets the groundwork to reach long-term goals set forth in Executive Orders S-3-05 and B-16-2012. The Update highlights California's progress toward meeting the "near-term" 2020 GHG emission reduction goals defined in the initial Scoping Plan. It also evaluates how to align the State's "longer-term" GHG reduction strategies with other State policy priorities for water, waste, natural resources, clean energy, transportation, and land use.

In this Update, nine key focus areas were identified (energy, transportation, agriculture, water, waste management, and natural and working lands), along with short-lived climate pollutants, green buildings, and the cap-and-trade program.

These key focus areas have overlapping and complementary interests that will require careful coordination in California's future climate and energy policies. These focus areas were selected to address issues that underlie multiple sectors of the economy. As such, each focus area is not contained to a single economic sector, but has far-reaching impacts within many economic sectors.

~~In October of 2013, the CARB submitted the First Update to the Climate Change Scoping Plan for public review and comment. The Update builds upon the initial Scoping Plan with new strategies and expanded measures. The Update identifies opportunities to leverage existing and new funds to drive GHG emission reductions through strategic planning and targeted program investments.~~"

Response 13-44: The following information on the thresholds of significance in the Draft EIR was added in the Recirculated Draft EIR on page 3.3-26 as follows (new text is underlined and ~~strikethrough~~ is used for deleted text):

"**GHG Emissions**. For the Proposed Project, the City is adopting the SCAQMD, 10,000 MT CO2e per year industrial project screening threshold as the significance threshold in addition to the qualitative thresholds of significance from *Section VII of Appendix G to the CEQA Guidelines*."

Response 13-45: The following information on the thresholds of significance was revised in the Recirculated Draft EIR on page 3.3-25 as follows (new text is underlined and ~~strikethrough~~ is used for deleted text):

"~~c. The project would not be compatible with SCAQMD, SCAG, County of Los Angeles and/or City of Irwindale air quality goals and policies.~~"

Response 13-46: The date is included in the references in Chapter 7 of the Recirculated Draft EIR (page 7.0-5)

Response 13-47: The change is minor and did not change any impact determinations. The threshold in the Draft EIR was revised in the Recirculated Draft EIR on page 3.3-26 as follows (new text is underlined and ~~strikethrough~~ is used for deleted text):

"**Toxic Air Contaminants.** The Proposed Project would result in a significant air quality impact if the carcinogenic or toxic air contaminants individually or cumulatively are equal to or exceed the maximum individual cancer risk of ten in one million or an acute or chronic hazard index of 1.0."

Response 13-48: See Response to Comment 13-4 related to mitigation measures.

Response 13-49: See Response to Comment 13-4 related to mitigation measures.

Response 13-50: See Response to Comment 13-4 related to mitigation measures.

Response 13-51: See Response to Comment 13-4 related to mitigation measures.

Response 13-52: See Response to Comment 13-4 related to mitigation measures.

Response 13-53: Employee trips, patrons, visitors, and general deliveries associated with the building footprint (visitor center, convenience store, service station, and processing facility are based on the CalEEMod).

Response 13-54: Appendix C contains a narrative of the methodology, assumptions, and data associated with the HRA and LST including terms and definitions, uncertainties, hazards identifications, exposure assessment, model selection, model options (e.g., rural vs. urban coefficients), the location of receptors, meteorological data, toxicity assessment, and risk characterization.

The data files in Appendix C include ambient monitoring data, the construction and operation emission calculation spreadsheets, the service station emission calculation spreadsheets, the CaLEEMod input and output, the EMFAC and OFFROAD input and output files, the AERMOD dispersion modeling files with meteorological and terrain data, and the calculation spreadsheets for the HRA and LST analysis.

Response 13-55: See Response to Comment 13-4 related to mitigation measures.

Response 13-56: See Response to Comment 13-4 related to mitigation measures.

Response 13-57: See Response to Comment 13-24 related to intersection analysis.

Response 13-58: See Response to Comment 13-42.

Response 13-59: See Response to Comment 13-42.

Response 13-60 – 13-67: The commenter submitted new comments on this topic. Please see Response to Comment 28-3 through 28-4 and 28-44 through 28-53.

Response 13-68: Azusa Land Reclamation, landfill disposal site, (the commenter's client) was not listed within Table 3.1 Cumulative Project List, and has now been added to the table as item 15 (Chapter 3.0, page 3.0-7). The MRF at 1501 W. Gladstone Street in Azusa is listed. During the initial project scoping period, the City invited surrounding cities to provide a cumulative project list. From responses to these inquiries, Table 3.1 was created. The City assumes this was an oversight by the City of Azusa, or that the project was excluded as an existing baseline use. In any case, it does not make the EIR or underlying analyses insufficient in any way. Since the Azusa Land Reclamation landfill disposal site is an existing operation and part of the local and regional baseline environment, and this additional site does not share haul routes with the proposed project, the City of Irwindale concludes that adding the Azusa Land Reclamation project to this list does not alter any of the conclusions of the environmental analyses contained within the EIR.

Response 13-69: The Draft EIR was revised in the Recirculated Draft EIR on page 5.0-5 through 5.0-9 to add information on why the seven alternative locations were rejected. See page 5.0-5

through 5.0-9 of the Recirculated Draft EIR (new text is underlined and ~~strikethrough~~ is used for deleted text).

The Draft EIR was revised in the Recirculated Draft EIR to include an additional alternative. Refer to the Source-Separated MRF Alternative discussion beginning on page 5.0-29 of the Recirculated Draft EIR.

The No Project Alternative describes that commercial uses could be developed under the current General Plan and zoning designations. Furthermore, the No Project Alternative assumes the proposed site would remain vacant and under this Alternative there would be no significant impacts to air quality, noise or traffic because this Alternative assumes both no project/ no build and no project/no plan amendment. It is reasonable to assume that the No Project Alternative would not result in other foreseeable impacts because the site would remain unchanged from what currently exists (the baseline).

The Reduced Tonnage Capacity alternative in the Draft EIR has been revised in the Recirculated Draft EIR. See the revised Reduced Tonnage Capacity Alternative beginning on page 5.0-23 of the Recirculated Draft EIR. Also, the Draft EIR was revised in the Recirculated Draft EIR to include an additional action alternative. Refer to the Source-Separated MRF Alternative discussion beginning on page 5.0-29 of the Recirculated Draft EIR.

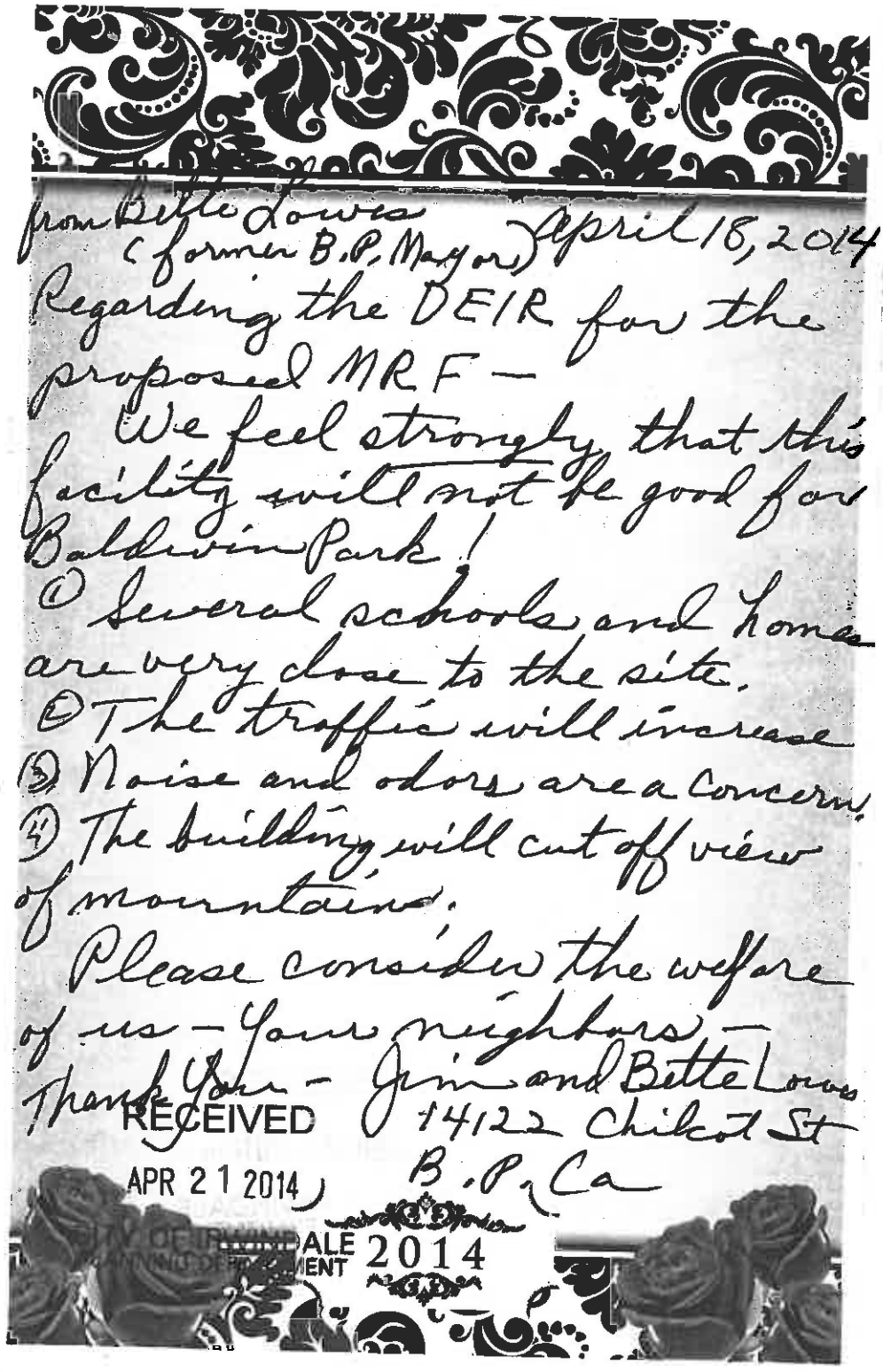
The Reduced Tonnage Capacity Alternative was revised in the Recirculated Draft EIR and the Source-Separated MRF Alternative was added to the Recirculated Draft EIR. Along with the No Project Alternative, the Recirculated Draft EIR provides a range of alternatives along with two valid action alternatives.

Response 13-70: The request to be included in future notices regarding the project is noted.

Response 13-71: MRO provided revised comments related to the Recirculated Draft EIR (in a letter dated August 19, 2014). See Responses to Comments 28-44 through 28-53.

The City of Irwindale appreciates your participation in the public review process

Comment Letter 14



from Bette Lowes (former B.P. Mayor) April 16, 2014

Regarding the DEIR for the proposed MRF —

We feel strongly that this facility will not be good for Baldwin Park!

1 ① Several schools and homes are very close to the site.

2 ② The traffic will increase

3 ③ Noise and odors are a concern.

4 ④ The building will cut off view of mountains.

Please consider the welfare of us — Your neighbors —

Thank You — Jim and Bette Lowes
14122 Chilcot St
B.P., Ca

RECEIVED
APR 21 2014
CITY OF BALDWIN PARK
DEVELOPMENT SERVICES DEPARTMENT

Responses to Comment Letter 14

The City acknowledges public concerns about the project and has prepared this EIR as required by CEQA with an intent to fully disclose potential environmental effects that could be attributed to the Proposed Project. The comments within this letter do not address specific content of the EIR analyses.

Response 14-1: Page 3.3-23 of the Recirculated Draft EIR identified the location of schools and homes, including single- and multi-family residences to the south of Live Oak Avenue and Arrow Highway. The nearest residence is located on the south side of Live Oak Avenue behind other industrial land uses in the City of Baldwin Park and approximately 325 feet from the Project. The nearest schools are: Margaret Heath Elementary (1,370 feet), Pleasant View Elementary (3,400 feet), Olive Junior High (3,500 feet), Walnut Elementary (4,400 feet), Santa Fe Elementary (3,900 feet), Jerry Holland Junior High (2,800 feet), Ernest Geddes Elementary (3,900 feet), and North Park High School (4,500 feet).

Response 14-2: The EIR includes comprehensive assessment of potential traffic impacts as a result of project implementation (Chapter 3.12). The project includes a Mitigation Monitoring and Reporting Program; however traffic impacts are considered significant and unavoidable.

Response 14-3: The EIR includes comprehensive assessment of noise (Chapter 3.10) and odor (Chapter 3.3). No significant impacts are expected with project implementation.

Response 14-4: The EIR includes comprehensive assessment of aesthetics and visual effects (Chapter 3.2), and determined that the view of the San Gabriel Mountains will not be significantly impacted as a result of the project. For example, the maximum height of the project building will be 61 feet, whereas the Santa Fe Dam adjacent north of the project site and within view of the mountain is approximately 100 feet in height. The project buildings will block a portion of the view of the Dam, but will not obstruct the view of the mountain.

The City of Irwindale appreciates your participation in the public review process.

Comment Letter 15

To the City of Irwindale Planning Department

May 16,2014

RE: Proposed MRF

I wonder how, in good conscience, Irwindale can impact & disrupt the lives of people & homeowners in their neighbors city, all for the almighty dollar!!! There are many, many retired & low income residents who will be affected forever because they/we cannot afford to move away. We are pretty much stuck! This MRF will affect our quality of life significantly. The air quality will worsen without a doubt! Traffic is currently an issue. Ground water is a serious concern. Man is not infallible!! The experts & engineers do not always "get it right"! 1

We will be looking at an ugly orange glow to the north, parking lot lights!! Even pointed down they will be visible. We will have noise all the time.

We have a Waste Management Facility one block to the west. We have the Allan Company Recycling 2 blocks to the east!! There is a new MRF open a few miles away in Azusa. How much are we required to live with??

Traffic, no matter where the driveways are located, will worsen! And with the traffic is MORE air pollution!! We are less than 500 feet from this facility. For 46 years we have lived here. This MRF is grossly unacceptable!! The "powers that be" deciding where to put these facilities do not live anywhere near them & would not accept having a MRF near their home or family!!!

It's easy for you to deem unsuitable "ALL" the alternatives. The Reliance ll Landfill is filling up nicely, I have noticed. Why not have it there, below grade? Or just expedite its filling !!!

Alpha Street- You mention residential land uses to the north & west!! Those people matter……we do not!!

We strongly object to the building of this MRF within a stones throw of our home!

Yours truly,

Jane & John Maguire

5112 Baldwin Park Blvd

Baldwin Park

Response to Comment Letter 15

Response 15-1: The City acknowledges public concerns about the project and has prepared this EIR as required by CEQA with an intent to fully disclose potential environmental effects that could be attributed to the Proposed Project.

The EIR includes comprehensive assessment of noise (Chapter 3.10), and determined that potential noise impacts were less than significant with implementation of required mitigation measures.

The EIR includes comprehensive assessment of traffic (Chapter 3.12) and identified traffic impacts as a result of project implementation. The project includes a Mitigation Monitoring and Reporting Program; however traffic impacts are considered significant and unavoidable even with implementation of required mitigation measures.

The City of Irwindale appreciates your participation in the public review process.

STATE OF CALIFORNIA

GOVERNOR'S OFFICE *of* PLANNING AND RESEARCH

STATE CLEARINGHOUSE AND PLANNING UNIT

EDMUND G. BROWN JR.
GOVERNOR

KEN ALEX
DIRECTOR

September 25, 2014

comment letter 16

Paula Kelly
City of Irwindale
5050 N. Irwindale Avenue
Irwindale, CA 91706

Subject: Materials Recovery Facility and Transfer Station (MRF/TS)
SCH#: 2013051029

Dear Paula Kelly:

The State Clearinghouse submitted the above named Draft EIR to selected state agencies for review. On the enclosed Document Details Report please note that the Clearinghouse has listed the state agencies that reviewed your document. The review period closed on September 24, 2014, and the comments from the responding agency (ies) is (are) enclosed. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project's ten-digit State Clearinghouse number in future correspondence so that we may respond promptly. 1

Please note that Section 21104(c) of the California Public Resources Code states that:

> "A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. Those comments shall be supported by specific documentation."

These comments are forwarded for use in preparing your final environmental document. Should you need more information or clarification of the enclosed comments, we recommend that you contact the commenting agency directly.

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process.

Sincerely,

Scott Morgan
Director, State Clearinghouse

Enclosures
cc: Resources Agency

Document Details Report
State Clearinghouse Data Base

SCH# 2013051029
Project Title Materials Recovery Facility and Transfer Station (MRF/TS)
Lead Agency Irwindale, City of

Type EIR Draft EIR

Description Athens Services has submitted an application to the City to construct and operate a materials recovery facility and waste transfer station (MRF/TS) with a fueling facility/convenience store.

Lead Agency Contact

Name Paula Kelly
Agency City of Irwindale
Phone 626 430 2200 **Fax**
email
Address 5050 N. Irwindale Avenue
City Irwindale **State** CA **Zip** 91706

Project Location

County Los Angeles
City Irwindale, Baldwin Park
Region
Lat / Long 34° 6' 15" N / 117° 58' 0" W
Cross Streets NW corner of Live Oak Avenue and Arrow Highway
Parcel No. 8535-001-911
Township 1S **Range** 10W **Section** 6 **Base** SBB&M

Proximity to:

Highways I-605 and 210
Airports No
Railways SPRR
Waterways San Gabriel River
Schools Heath, Landis, Geddes
Land Use Vacant and disturbed / Heavy Manufacturing / Commercial

Project Issues Agricultural Land; Air Quality; Archaeologic-Historic; Biological Resources; Drainage/Absorption; Forest Land/Fire Hazard; Geologic/Seismic; Minerals; Noise; Population/Housing Balance; Public Services; Recreation/Parks; Schools/Universities; Sewer Capacity; Soil Erosion/Compaction/Grading; Solid Waste; Toxic/Hazardous; Traffic/Circulation; Water Quality; Water Supply; Growth Inducing; Landuse; Cumulative Effects; Other Issues; Aesthetic/Visual

Reviewing Agencies Resources Agency; Department of Fish and Wildlife, Region 5; Department of Parks and Recreation; Department of Water Resources; Resources, Recycling and Recovery; California Highway Patrol; Caltrans, District 7; Air Resources Board; Air Resources Board, Major Industrial Projects; Regional Water Quality Control Board, Region 4; Department of Toxic Substances Control; Native American Heritage Commission; San Gabriel & Lower Los Angeles Rivers & Mountains Conservancy

Date Received 08/11/2014 **Start of Review** 08/11/2014 **End of Review** 09/24/2014

CalRecycle

DEPARTMENT OF RESOURCES RECYCLING AND RECOVERY

1001 I STREET, SACRAMENTO, CALIFORNIA 95814 • WWW.CALRECYCLE.CA.GOV • (916) 322-4027

P.O. BOX 4025, SACRAMENTO, CALIFORNIA 95812

September 24, 2014

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RECEIVED
SEP 24 2014
STATE CLEARING HOUSE

Ms. Paula Kelly, Senior Planner
City of Irwindale
5050 North Irwindale Avenue
Irwindale, CA 91706

Subject: **SCH No. 2013051029** – Recirculated Draft Environmental Impact Report for Irwindale Material Recovery Facility and Transfer Station, City of Irwindale – Los Angeles County

Dear Ms. Kelly:

Thank you for allowing the Department of Resources Recycling and Recovery (CalRecycle) staff to provide comments on the proposed project and for your agency's consideration of these comments as part of the California Environmental Quality Act (CEQA) process.

PROJECT DESCRIPTION

The City of Irwindale, acting as Lead Agency, has prepared and circulated a Notice of Completion (NOC) of a Recirculated Draft Environmental Impact Report (RDEIR) in order to comply with CEQA and to provide information to, and solicit consultation with, Responsible Agencies in the approval of the proposed project.

The proposed Irwindale Materials Recovery Facility and Transfer Station (Project) is located at 2200 Arrow Highway, at the northwestern intersection of Live Oak Avenue and Arrow Highway, in the City of Irwindale. The project site is approximately 17.22 acres, and is currently zoned for Heavy Manufacturing and located in an industrial area, with various commercial/industrial, residential, and recreational land uses in the surrounding areas.

The applicant/operator, Athens Services, is proposing to construct and operate a fully enclosed Materials Recovery Facility and Transfer Station (MRF/TS), with a Fueling Facility/Convenience Store, with a total area of 247,007 square feet. The MRF/TS would receive, process, and transfer mixed municipal solid waste (MSW), green waste, construction and demolition materials, and waste hauled in by self-haulers. The MRF/TS operations would consist of sorting, consolidating, and compacting received materials, and then re-loading all recyclable, compostable, and solid waste material into transfer trucks for transport to additional processing and/or disposal facilities.

The MRF/TS would be open for waste receipt 24 hours per day, seven days per week. The MRF/TS would have a maximum capacity to process up to 3,000 tons per day (TPD) of MSW, 1,000 TPD of green waste, 1,000 TPD of construction and demolition waste, and 1,000 TPD of self-haul waste. The sum of the upper end values for each waste type equals 6,000 TPD.

In addition to the MRF/TS, on-site improvements include operations offices, administrative offices and visitor center, maintenance facility, scale houses, and a fueling facility/convenience store open to the public.

The following environmental impacts were analyzed and considered significant and unavoidable as a result of the proposed project:

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1. Air quality – The project would result in a regional cumulative operations impact given that the Basin is in nonattainment for ozone, and the proposed project would exceed the regional daily emissions thresholds for ROG and NO_x, which are ozone precursors.

2. Noise – The proposed project would result in short-term construction, permanent ambient operational noise impacts on the western/northwestern border, and traffic related noise impact.

3. Traffic – The proposed project would cause a significant and unavoidable impacts to the I-605 (NS) / Live Oak Avenue (EW) Avenue intersection. In addition, as the proposed project would contribute to the existing and forecasted deficient freeway segments, the project's contribution to these cumulative traffic impacts is considered cumulatively considerable.

All other potentially significant environmental impacts would be reduced to a less than significant impact level with implementation of the Mitigation Program identified within the RDEIR.

Project Variant
In the event that the Valley County Water District acquires 1.9 acres of the proposed project, the MRF/TS operations would essentially be the same as described above except that there would be no transfer truck parking. Instead, the proposed project would use sub-hauler vendors to transfer the material. The total area for the project variant would be 230,972 square feet.

COMMENTS
CalRecycle's comments on the proposed project are listed below. Where a specific location in the document is noted for the comment, please ensure the comment is addressed throughout all chapters of the EIR, in addition to the specific location noted.

DEIR
CalRecycle provided comments on the DEIR (received by the State Clearinghouse [SCH] on May 6, 2014), and those comments remain to be addressed. The May 6, 2014 comment letter is attached for your reference, and the comments are listed below:

Tonnage
Please include the methods and calculations used to determine the maximum storage capacity for MSW, green waste, construction and demolition waste, and self-haul waste pursuant to Title 14, California Code of Regulations (14 CCR), Section 18221.6(g).

Statement of Overriding Considerations
Since there will be significant and unavoidable impacts resulting from the proposed project, CalRecycle staff requests that a copy of the Statement of Overriding Considerations and Findings be forwarded as required by 14 CCR Section 15091, along with any related resolutions adopted by the decision-making body.

Solid Waste Facilities Permit
The Los Angeles County Department of Public Health's Solid Waste Management Program as the Local Enforcement Agency (LEA) and CalRecycle are responsible for providing regulatory oversight of solid waste handling activities, including transfer/processing facilities, relative to permitting and inspections. The permitting and regulatory requirements for transfer/processing facilities are contained in Title 14 and 27 CCR. The proposed project will require concurrence by CalRecycle in the issuance, by the LEA, of a Solid Waste Facilities Permit for the operation of a Large Volume Transfer/Processing Facility. Please contact the LEA at 626.430.5540 to discuss permit requirements for the project.

In addition to the comments provided for the DEIR, additional comments for the RDEIR are summarized in the table below:

Chapter/Section	Page and Location	Comment
Executive Summary	ES-3, 3rd paragraph	Chapter 4.0 should be added to the list of chapters with revised portions.
	ES-4, number 2 of 2nd list	Chapter 4.0 should be added to the list of chapters with revised portions.
	ES-16, last sentence on page	CalRecycle's comment letter on the NOP, received by the State Clearinghouse on June 7, 2013, is not included in Appendix A. CalRecycle is a Responsible Agency, and this information should be included and considered in the document. A copy of the comment letter is attached for your reference.
	ES-17, under the heading "Written Comment Letters"	CalRecycle's comment letter, received by the State Clearinghouse on June 7, 2013, is not identified.
	ES-21, last sentence on page	Text needs to be updated to reflect the current comment period, instead of the comment period from the DEIR.
Chapter 1.0 – Introduction	1.0-3, 2nd paragraph	Chapter 4.0 should be added to the list of chapters with revised portions.
	1.0-10, last sentence of 1st paragraph under Section 1.5	CalRecycle's comment letter on the NOP, received by the State Clearinghouse on June 7, 2013, is not included in Appendix A. CalRecycle is a Responsible Agency, and this information should be included and considered in the document. A copy of the comment letter is attached for your reference.
	1.0-11, under the heading "Written Comment Letters"	CalRecycle's comment letter on the NOP, received by the State Clearinghouse on June 7, 2013, is not identified or summarized. CalRecycle is a Responsible Agency, and those comments should be included.
Chapter 2.0 Project Description	2.0-7, first paragraph	Delete "CalRecycle (in conjunction with" and the ending parentheses, and insert "Department of" before "Public Health." CalRecycle is not the LEA.
	2.0-8, 3rd paragraph	Refer to CalRecycle's May 6, 2014 comment letter on the DEIR regarding tonnage calculations.
	2.0-9, 3rd paragraph	Liquid wastes and sludges shall also be prohibited to be accepted or stored at the facility without written approval from appropriate agencies and the LEA, pursuant to 14 CCR Section 17407.5(c). In addition, a period needs to be inserted after the paragraph.
	2.0-10, Table 2-2	The number of parking stalls provided in Table 2-2 does not match the numbers in Exhibit 2-3. The tables, text, and exhibits should be consistent.
	2.0-13, Table 2-3	Pursuant to 14 CCR 18221.6(l), a "description of transfer, recovery and processing equipment, including classification, capacity and the number of units" will need to be included in the Transfer/Processing Report required for permitting the proposed facility.

Chapter/Section	Page and Location	Comment
	2.0-16, 3rd paragraph	The number of parking stalls should match the information in Table 2-2 and Exhibit 2-3.
	2.0-18, Table 2-5	The square footage for "Self-haul and Construction & Debris" does not match what's in Exhibit 2-4. In addition, the number of parking stalls does not match what's in Exhibit 2-4.
	2.0-23, Table 2-6	"California Department of Conservation, Division of Recycling" should be California Department of Resources Recycling and Recovery (CalRecycle). The Department of Conservation, Division of Recycling and the Integrated Waste Management Board merged to become CalRecycle, effective 1/1/2010.
Chapter 3.11 – Public Services And Utilities	3.11-17, last sentence on page	Chiquita Canyon Landfill should be removed to be consistent with edits made in other sections of the document.
Chapter 3.12 – Traffic Generation and Circulation	3.12-93, last paragraph	1. First Sentence: insert "through" after "available." 2. Fourth Sentence: should be "and" after "adopted," and there should be a comma after "City."
Chapter 4.0 – Mandatory CEQA Considerations	4.0-5, 1st paragraph, 3rd sentence	"Business" should be plural.

CONCLUSION

CalRecycle staff thanks the Lead Agency for the opportunity to review and comment on the environmental document and hopes that this comment letter will be useful to the Lead Agency preparing the EIR and in carrying out their responsibilities in the CEQA process.

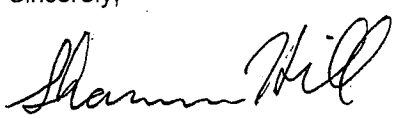
CalRecycle staff requests copies of any subsequent environmental documents, copies of public notices and any Notices of Determination for this project. Refer to 14 CCR Section 15094(d) that states:

> If the project requires discretionary approval from any state agency, the local lead agency shall also, within five working days of this approval, file a copy of the notice of determination with the Office of Planning and Research [State Clearinghouse].

If the environmental document is certified during a public hearing, CalRecycle staff requests ten days advance notice of this hearing. If the document is certified without a public hearing, CalRecycle staff requests ten days advance notification of the date of the certification and project approval by the decision making body.

If you have any questions regarding these comments, please contact me at 916.341.6174 or by e-mail at Shannon.Hill@calrecycle.ca.gov.

Sincerely,



Shannon Hill, Environmental Scientist
Permitting and Assistance Branch - South Unit
Waste Permitting, Compliance, and Mitigation Division
CalRecycle

CalRecycle

DEPARTMENT OF RESOURCES RECYCLING AND RECOVERY

1001 I STREET, SACRAMENTO, CALIFORNIA 95814 • WWW.CALRECYCLE.CA.GOV • (916) 322-4027
P.O. BOX 4025, SACRAMENTO, CALIFORNIA 95812

May 6, 2014

RECEIVED
MAY 06 2014
STATE CLEARING HOUSE

Ms. Paula Kelly, Senior Planner
City of Irwindale
5050 North Irwindale Avenue
Irwindale, CA 91706

Subject: **SCH No. 2013051029** – Draft Environmental Impact Report for Irwindale Material Recovery Facility and Transfer Station, City of Irwindale – Los Angeles County

Dear Ms. Kelly:

Thank you for allowing the Department of Resources Recycling and Recovery (CalRecycle) staff to provide comments for this proposed project and for your agency's consideration of these comments as part of the California Environmental Quality Act (CEQA) process.

PROJECT DESCRIPTION

The City of Irwindale, acting as Lead Agency, has prepared and circulated a Notice of Completion (NOC) of a Draft Environmental Impact Report (DEIR) in order to comply with CEQA and to provide information to, and solicit consultation with, Responsible Agencies in the approval of the proposed project.

The proposed Irwindale Materials Recovery Facility and Transfer Station (Project) is located at 2200 Arrow Highway, at the northwestern intersection of Live Oak Avenue and Arrow Highway, in the City of Irwindale. The project site is approximately 17.22 acres, and is currently zoned for Heavy Manufacturing and located in an industrial area, with various commercial/industrial, residential, and recreational land uses in the surrounding areas.

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The MRF/TS would be open for waste receipt 24 hours per day, seven days per week. The MRF/TS would have a maximum capacity to process up to 3,000 tons per day (TPD) of MSW, 1,000 TPD of green waste, 1,000 TPD of construction and demolition waste, and 1,000 TPD of self-haul waste. The sum of the upper end values for each waste type equals 6,000 TPD.

In addition to the MRF/TS, on-site improvements include operations offices, administrative offices and visitor center, maintenance facility, scale houses, and a fueling facility/convenience store open to the public.

The following environmental impacts were analyzed and considered significant and unavoidable as a result of the proposed project:

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1. Air quality – The project would result in a regional cumulative operations impact given that the Basin is in nonattainment for ozone and the proposed project would exceed the regional daily emissions thresholds for ROG and NO_x, which are ozone precursors.

2. Noise – The proposed project would result in short-term construction, permanent ambient operational noise impacts on the western/northwestern border, and traffic related noise impact.

3. Traffic – As the proposed project would contribute to the existing and forecasted deficient freeway segments, the project's contribution to these cumulative traffic impacts is considered cumulatively considerable.

All other potentially significant environmental impacts would be reduced to a less than significant impact level with implementation of the Mitigation Program identified within the DEIR.

Project Variant
In the event that the Valley County Water District acquires 1.9 acres of the proposed project, the MRF/TS operations would essentially be the same as described above except that there would be no transfer truck parking. Instead, the proposed project would use sub-hauler vendors to transfer the material. The total area for the project variant would be 230,972 square feet.

COMMENTS

Tonnage
Please include the methods and calculations used to determine the maximum storage capacity for MSW, green waste, construction and demolition waste, and self-haul waste pursuant to Title 14, California Code of Regulations (14 CCR), Section 18221.6 (g).

Statement of Overriding Considerations
Since there will be significant and unavoidable impacts resulting from the proposed project, CalRecycle staff requests that a copy of the Statement of Overriding Considerations and Findings be forwarded as required by 14 CCR Section 15091, along with any related resolutions adopted by the decision-making body.

Solid Waste Facilities Permit
The Los Angeles County Department of Public Health's Solid Waste Management Program as the Local Enforcement Agency (LEA) and CalRecycle are responsible for providing regulatory oversight of solid waste handling activities, including transfer/processing facilities, relative to permitting and inspections. The permitting and regulatory requirements for transfer/processing facilities are contained in Title 14 and 27 CCR. The proposed project will require concurrence by CalRecycle in the issuance, by the LEA, of a Solid Waste Facilities Permit for the operation of a Large Volume Transfer/Processing Facility. Please contact the LEA at 626.430.5540 to discuss permit requirements for the project.

CONCLUSION
CalRecycle staff thanks the Lead Agency for the opportunity to review and comment on the environmental document and hopes that this comment letter will be useful to the Lead Agency preparing the DEIR and in carrying out their responsibilities in the CEQA process.

CalRecycle staff requests copies of any subsequent environmental documents, copies of public notices and any Notices of Determination for this project. Refer to 14 CCR Section 15094(d) that states:

If the project requires discretionary approval from any state agency, the local lead agency shall also, within five working days of this approval, file a copy of the notice of determination with the Office of Planning and Research [State Clearinghouse].

If the environmental document is certified during a public hearing, CalRecycle staff requests ten days advance notice of this hearing. If the document is certified without a public hearing, CalRecycle staff requests ten days advance notification of the date of the certification and project approval by the decision making body.

If you have any questions regarding these comments, please contact me at 916.323.0834 or by e-mail at Martin.Perez@calrecycle.ca.gov.

Sincerely,

Martin Perez
Permitting and Assistance Branch - South Unit
Waste Permitting, Compliance, and Mitigation Division
CalRecycle

cc: Virginia Rosales, Supervisor
Permitting and Assistance Branch - South Unit

Gerardo Villalobos, Chief
Department of Public Health
County of Los Angeles
5050 Commerce Drive,
Baldwin Park, CA 91706
gvillalobos@ph.lacounty.gov

CalRecycle

DEPARTMENT OF RESOURCES RECYCLING AND RECOVERY

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P.O. BOX 4025, SACRAMENTO, CALIFORNIA 95812

June 7, 2013

RECEIVED
JUN -7 2013
STATE CLEARING HOUSE

Ms. Paula Kelly, Senior Planner
City of Irwindale
5050 North Irwindale Avenue
Irwindale, CA 91706

Subject: SCH No. 2013051029 – Notice of Preparation of a Draft Environmental Impact Report for the Irwindale Material Recovery Facility and Transfer Station, Los Angeles County

Dear Ms. Kelly,

The Department of Resources Recycling and Recovery (CalRecycle) staff has reviewed the Notice of Preparation (NOP) of a Draft Environmental Impact Report (DEIR) and offers the following project description and analysis for the proposed project based on CalRecycle staff's understanding of the project. If CalRecycle's project description varies substantially from the project as understood by the Lead Agency, CalRecycle staff request notification of any significant differences before certification of the Final Environmental Impact Report. Significant differences in the project description could qualify as "significant new information" about the project that would require recirculation of the document before certification pursuant to California Environmental Quality Act (CEQA) Section 15088.5 or possibly the preparation of a new environmental document.

PROPOSED PROJECT DESCRIPTION

The City of Irwindale, acting as Lead Agency, has prepared and circulated a NOP of a DEIR in order to comply with CEQA and to provide information to, and solicit consultation with, Responsible Agencies in the approval of the proposed project.

The proposed Irwindale Materials Recovery Facility and Transfer Station (Project) is located at 2200 Arrow Highway, at the northwestern intersection of Live Oak Avenue and Arrow Highway, in the City of Irwindale. The project site is approximately 17.22 acres, and is currently zoned for Heavy Manufacturing and located in an industrial area, with various commercial/industrial, residential, and recreational land uses in the surrounding areas.

The applicant/operator, Athens Services, is proposing to construct and operate a fully enclosed Materials Recovery Facility and Transfer Station (MRF/TS), with a Fueling Facility/Convenience Store, with a total area of 246,022 square feet. The MRF/TS would receive, process, and transfer mixed municipal solid waste (MSW), green waste, construction and demolition materials, and waste hauled in by self haulers. The MRF/TS would be open for waste receipt 24 hours per day, seven days per week. The MRF/TS operations would consist of sorting, consolidating, and compacting received materials, and then re-loading all recyclable, compostable, and solid waste material into transfer trucks for transport to additional processing and/or disposal facilities.

The MRF/TS would have a maximum capacity to process up to 3,000 tons per day (tpd) of MSW, 1,500 tpd of green waste, 1,500 tpd of construction and demolition waste, and 750 tpd of self-haul waste. The sum of the upper end values for each waste type equals 6,750 tpd, but the maximum permitted capacity will be 6,000 tpd.

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In addition to the MRF/TS, on-site improvements include operations offices, administrative offices and visitor center, maintenance facility, scale houses, and a fueling facility/convenience store open to the public.

Based on the preliminary assessment of the environmental effects potentially stemming from the proposed project, the Lead Agency has determined that an EIR will need to be prepared. The following components will be analyzed in order to determine the level of impact:

- Aesthetics
- Air Quality and Greenhouses Gases
- Biological Resources
- Cultural Resources
- Geology and Soils
- Hazards and Hazardous Materials
- Land Use
- Noise
- Public Services and Utilities
- Transportation/Traffic
- Water Quality and Hydrology
- Alternatives to the Project

COMMENTS

As required by Title 14, California Code of Regulations (14 CCR), Sections 15126.2, 15126.4, and 15126.6, CalRecycle staff requests that the DEIR contain detailed considerations and discussions of the significant effects, mitigation measures, and alternatives for the proposed project including the alternative of "no project."

The Draft EIR must detail all provisions in order to indicate the ability of the facility to meet State Minimum Standards for environmental protection (14 CCR Section 17000 et seq.). The following internet link accesses checklists developed by CalRecycle staff as a guide to Lead Agencies in the preparation of EIRs for transfer/processing facilities:

http://www.calrecycle.ca.gov/SWFacilities/Permitting/CEQA/Documents/Guidance/Transfer.htm

Days and Hours of Operation
The DEIR should be clear as to what the days and hours of operation are for the specific functions such as the receipt of material, transferring material, processing of material, site maintenance, and etcetera.

Waste Characterization
Indicate in the DEIR the specific types of waste to be accepted as well as those types of waste to be excluded and/or prohibited.

Tonnage
All materials that enter the transfer station must pass over the scale and be analyzed for in the DEIR minus equipment and supplies. Please include the methods and calculations to determine the maximum storage capacity.

Equipment
Please describe the equipment, in quantity and type, to be used during operation of the proposed project.

Hazardous Waste Storage
It states that the project will not intend to accept hazardous materials though a load checking program will be provided. Since there is potential for accidental acceptance of these wastes, please indicate where the temporary hazardous material storage area will be located and describe the removal frequency and end destination.

Buildings and On-Site Improvements
Describe in detail the design characteristics of improvements to be made to the site. Describe the design of the buildings where MSW, construction and demolition waste, green waste, and self haul waste will be handled.

Describe design features to attenuate for odor, dust, vectors, litter, and noise. Will there be negative pressurization or misters to control odor and dust? What will be the cleaning frequency?

Land Use Compatibility
The DEIR should identify the proposed facility's surrounding land use with a description of the density of the occupancy for commercial and residential areas. The DEIR should be specific regarding the distance to the nearest sensitive receptor(s).

The project's surrounding land use must be designated as compatible with the proposed/current land uses at the project site. The local government, in whose jurisdiction the facilities will be located, must make a finding that the facility is consistent with the General Plan (Public Resources Code (PRC) Section 50000) and is identified in the most recent County Solid Waste Management Plan (PRC Section 50001).

Traffic
Peak traffic volumes should be projected over a minimum of five years for the project at peak tonnages. On-site traffic circulation for the proposed project should be discussed in detail in the DEIR.

A traffic study may be necessary to determine whether the existing infrastructure can handle the projected vehicular movement, and whether improvements may be necessary to accommodate increased traffic, including the repair and maintenance of existing roads, additional lighting, turn lanes and pedestrian walk-ways; as well as cumulative impacts on the circulation within the transfer station vicinity (i.e., ingress and egress).

Air Quality/Odor
Impacts on air quality from potential dust generation during operations should be analyzed.

The distance to the nearest residential and/or commercial odor receptors, as well as the direction of the prevailing wind, should be identified. Mitigation measures, which will be employed to address impacts for the proposed project, should be incorporated into the DEIR.

Noise
Activities associated with vehicular transport of waste materials and the use of equipment to process materials may result in significant on-site and off-site noise levels. A noise study may be necessary if local receptors are impacted, and should be included in the DEIR. Appropriate noise-attenuating mitigation measures, which can be implemented to reduce noise levels, should be incorporated into the DEIR. Short-term and cumulative impacts should be assessed as well as operations related noise.

Cumulative Impacts
It is important that the DEIR address the cumulative impacts resulting from the proposed project as well as those incremental impacts resulting from the proposed project's implementation.

Solid Waste Facilities Permit
The Los Angeles County Department of Public Health's Solid Waste Management Program (as the Local Enforcement Agency (LEA) for Los Angeles County) and CalRecycle are responsible for providing regulatory oversight of solid waste handling activities such as transfer/processing facilities. The permitting and regulatory requirements for transfer/processing are contained in Title 14 and Title 27 of the California Code of Regulations (14 or 27 CCR).

The proposed project will require concurrence by CalRecycle in the issuance, by the LEA, of a Solid Waste Facilities Permit for the operation of a Large Volume Transfer Station. Please contact the LEA at 626.430.5540 to discuss permit requirements for the project.

CONCLUSION

CalRecycle staff thanks the Lead Agency for the opportunity to review and comment on the environmental document and hopes that this comment letter will be useful to the Lead Agency preparing the DEIR and in carrying out their responsibilities in the CEQA process.

CalRecycle staff requests copies of any subsequent environmental documents, copies of public notices and any Notices of Determination for this project. Refer to 14 CCR, Section 15094(d) that states:

> If the project requires discretionary approval from any state agency, the local lead agency shall also, within five working days of this approval, file a copy of the notice of determination with the Office of Planning and Research [State Clearinghouse].

If the environmental document is certified during a public hearing, CalRecycle staff requests ten days advance notice of this hearing. If the document is certified without a public hearing, CalRecycle staff requests ten days advance notification of the date of the certification and project approval by the decision-making body.

If you have any questions regarding these comments, please contact me at 951.782.4194 or by e-mail at Martin.Perez@calrecycle.ca.gov.

Sincerely,

Martin Perez
Permitting and Assistance Branch - South Unit
Waste Permitting, Compliance, and Mitigation Division
CalRecycle

cc: Virginia Rosales, Supervisor
Permitting and Assistance Branch - South Unit

Gerardo Villalobos, REHS IV
Department of Public Health
County of Los Angeles
5050 Commerce Drive,
Baldwin Park, CA 91706
gvillalobos@ph.lacounty.gov

Response to Comment Letter 16

Response 16-1: Comment noted. The City appreciates the State Clearinghouse's transmittal of the Comment Letters from the Department of Resources Recycling and Recovery (Comment Letters 3 and 17 in this document). The letters are dated May 6, 2014 (a copy of the letter sent in response to the Draft EIR and September 24, 2014 (the Comment Letter on the Recirculated Draft EIR).

CalRecycle

DEPARTMENT OF RESOURCES RECYCLING AND RECOVERY

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Comment Letter 17



September 24, 2014

Ms. Paula Kelly, Senior Planner
City of Irwindale
5050 North Irwindale Avenue
Irwindale, CA 91706

Subject: **SCH No. 2013051029** – Recirculated Draft Environmental Impact Report for Irwindale Material Recovery Facility and Transfer Station, City of Irwindale – Los Angeles County

Dear Ms. Kelly:

Thank you for allowing the Department of Resources Recycling and Recovery (CalRecycle) staff to provide comments on the proposed project and for your agency's consideration of these comments as part of the California Environmental Quality Act (CEQA) process.

PROJECT DESCRIPTION

The City of Irwindale, acting as Lead Agency, has prepared and circulated a Notice of Completion (NOC) of a Recirculated Draft Environmental Impact Report (RDEIR) in order to comply with CEQA and to provide information to, and solicit consultation with, Responsible Agencies in the approval of the proposed project. 1

The proposed Irwindale Materials Recovery Facility and Transfer Station (Project) is located at 2200 Arrow Highway, at the northwestern intersection of Live Oak Avenue and Arrow Highway, in the City of Irwindale. The project site is approximately 17.22 acres, and is currently zoned for Heavy Manufacturing and located in an industrial area, with various commercial/industrial, residential, and recreational land uses in the surrounding areas.

The applicant/operator, Athens Services, is proposing to construct and operate a fully enclosed Materials Recovery Facility and Transfer Station (MRF/TS), with a Fueling Facility/Convenience Store, with a total area of 247,007 square feet. The MRF/TS would receive, process, and transfer mixed municipal solid waste (MSW), green waste, construction and demolition materials, and waste hauled in by self-haulers. The MRF/TS operations would consist of sorting, consolidating, and compacting received materials, and then re-loading all recyclable, compostable, and solid waste material into transfer trucks for transport to additional processing and/or disposal facilities.

The MRF/TS would be open for waste receipt 24 hours per day, seven days per week. The MRF/TS would have a maximum capacity to process up to 3,000 tons per day (TPD) of MSW, 1,000 TPD of green waste, 1,000 TPD of construction and demolition waste, and 1,000 TPD of self-haul waste. The sum of the upper end values for each waste type equals 6,000 TPD.

In addition to the MRF/TS, on-site improvements include operations offices, administrative offices and visitor center, maintenance facility, scale houses, and a fueling facility/convenience store open to the public.

The following environmental impacts were analyzed and considered significant and unavoidable as a result of the proposed project:

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1. Air quality – The project would result in a regional cumulative operations impact given that the Basin is in nonattainment for ozone, and the proposed project would exceed the regional daily emissions thresholds for ROG and NO_x, which are ozone precursors.
2. Noise – The proposed project would result in short-term construction, permanent ambient operational noise impacts on the western/northwestern border, and traffic related noise impact.
3. Traffic – The proposed project would cause a significant and unavoidable impacts to the I-605 (NS) / Live Oak Avenue (EW) Avenue intersection. In addition, as the proposed project would contribute to the existing and forecasted deficient freeway segments, the project's contribution to these cumulative traffic impacts is considered cumulatively considerable.

1 con't

All other potentially significant environmental impacts would be reduced to a less than significant impact level with implementation of the Mitigation Program identified within the RDEIR.

Project Variant
In the event that the Valley County Water District acquires 1.9 acres of the proposed project, the MRF/TS operations would essentially be the same as described above except that there would be no transfer truck parking. Instead, the proposed project would use sub-hauler vendors to transfer the material. The total area for the project variant would be 230,972 square feet.

2

COMMENTS
CalRecycle's comments on the proposed project are listed below. Where a specific location in the document is noted for the comment, please ensure the comment is addressed throughout all chapters of the EIR, in addition to the specific location noted.

3

DEIR
CalRecycle provided comments on the DEIR (received by the State Clearinghouse [SCH] on May 6, 2014), and those comments remain to be addressed. The May 6, 2014 comment letter is attached for your reference, and the comments are listed below:

Tonnage
Please include the methods and calculations used to determine the maximum storage capacity for MSW, green waste, construction and demolition waste, and self-haul waste pursuant to Title 14, California Code of Regulations (14 CCR), Section 18221.6(g).

Statement of Overriding Considerations
Since there will be significant and unavoidable impacts resulting from the proposed project, CalRecycle staff requests that a copy of the Statement of Overriding Considerations and Findings be forwarded as required by 14 CCR Section 15091, along with any related resolutions adopted by the decision-making body.

4

Solid Waste Facilities Permit
The Los Angeles County Department of Public Health's Solid Waste Management Program as the Local Enforcement Agency (LEA) and CalRecycle are responsible for providing regulatory oversight of solid waste handling activities, including transfer/processing facilities, relative to permitting and inspections. The permitting and regulatory requirements for transfer/processing facilities are contained in Title 14 and 27 CCR. The proposed project will require concurrence by CalRecycle in the issuance, by the LEA, of a Solid Waste Facilities Permit for the operation of a Large Volume Transfer/Processing Facility. Please contact the LEA at 626.430.5540 to discuss permit requirements for the project.

5

In addition to the comments provided for the DEIR, additional comments for the RDEIR are summarized in the table below:

Chapter/Section	Page and Location	Comment	
Executive Summary	ES-3, 3rd paragraph	Chapter 4.0 should be added to the list of chapters with revised portions.	
	ES-4, number 2 of 2nd list	Chapter 4.0 should be added to the list of chapters with revised portions.	6
	ES-16, last sentence on page	CalRecycle's comment letter on the NOP, received by the State Clearinghouse on June 7, 2013, is not included in Appendix A. CalRecycle is a Responsible Agency, and this information should be included and considered in the document. A copy of the comment letter is attached for your reference.	
	ES-17, under the heading "Written Comment Letters"	CalRecycle's comment letter, received by the State Clearinghouse on June 7, 2013, is not identified.	
	ES-21, last sentence on page	Text needs to be updated to reflect the current comment period, instead of the comment period from the DEIR.	
Chapter 1.0 – Introduction	1.0-3, 2nd paragraph	Chapter 4.0 should be added to the list of chapters with revised portions.	
	1.0-10, last sentence of 1st paragraph under Section 1.5	CalRecycle's comment letter on the NOP, received by the State Clearinghouse on June 7, 2013, is not included in Appendix A. CalRecycle is a Responsible Agency, and this information should be included and considered in the document. A copy of the comment letter is attached for your reference.	7
	1.0-11, under the heading "Written Comment Letters"	CalRecycle's comment letter on the NOP, received by the State Clearinghouse on June 7, 2013, is not identified or summarized. CalRecycle is a Responsible Agency, and those comments should be included.	
Chapter 2.0 Project Description	2.0-7, first paragraph	Delete "CalRecycle (in conjunction with" and the ending parentheses, and insert "Department of" before "Public Health." CalRecycle is not the LEA.	
	2.0-8, 3rd paragraph	Refer to CalRecycle's May 6, 2014 comment letter on the DEIR regarding tonnage calculations.	8
	2.0-9, 3rd paragraph	Liquid wastes and sludges shall also be prohibited to be accepted or stored at the facility without written approval from appropriate agencies and the LEA, pursuant to 14 CCR Section 17407.5(c). In addition, a period needs to be inserted after the paragraph.	
	2.0-10, Table 2-2	The number of parking stalls provided in Table 2-2 does not match the numbers in Exhibit 2-3. The tables, text, and exhibits should be consistent.	
	2.0-13, Table 2-3	Pursuant to 14 CCR 18221.6(l), a "description of transfer, recovery and processing equipment, including classification, capacity and the number of units" will need to be included in the Transfer/Processing Report required for permitting the proposed facility.	

Chapter/Section	Page and Location	Comment
	2.0-16, 3rd paragraph	The number of parking stalls should match the information in Table 2-2 and Exhibit 2-3.
	2.0-18, Table 2-5	The square footage for "Self-haul and Construction & Debris" does not match what's in Exhibit 2-4. In addition, the number of parking stalls does not match what's in Exhibit 2-4.
	2.0-23, Table 2-6	"California Department of Conservation, Division of Recycling" should be California Department of Resources Recycling and Recovery (CalRecycle). The Department of Conservation, Division of Recycling and the Integrated Waste Management Board merged to become CalRecycle, effective 1/1/2010.
Chapter 3.11 – Public Services And Utilities	3.11-17, last sentence on page	Chiquita Canyon Landfill should be removed to be consistent with edits made in other sections of the document.
Chapter 3.12 – Traffic Generation and Circulation	3.12-93, last paragraph	1. First Sentence: insert "through" after "available." 2. Fourth Sentence: should be "and" after "adopted," and there should be a comma after "City."
Chapter 4.0 – Mandatory CEQA Considerations	4.0-5, 1st paragraph, 3rd sentence	"Business" should be plural.

9

CONCLUSION

CalRecycle staff thanks the Lead Agency for the opportunity to review and comment on the environmental document and hopes that this comment letter will be useful to the Lead Agency preparing the EIR and in carrying out their responsibilities in the CEQA process.

CalRecycle staff requests copies of any subsequent environmental documents, copies of public notices and any Notices of Determination for this project. Refer to 14 CCR Section 15094(d) that states:

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If you have any questions regarding these comments, please contact me at 916.341.6174 or by e-mail at Shannon.Hill@calrecycle.ca.gov.

Sincerely,



Shannon Hill, Environmental Scientist
Permitting and Assistance Branch - South Unit
Waste Permitting, Compliance, and Mitigation Division
CalRecycle

Enclosures: May 6, 2014 CalRecycle Comment Letter on DEIR
June 7, 2013 CalRecycle Comment Letter on NOP

cc: Virginia Rosales, Supervisor
Permitting and Assistance Branch - South Unit

Gerardo Villalobos, Chief
Department of Public Health
County of Los Angeles
5050 Commerce Drive,
Baldwin Park, CA 91706
gvillalobos@ph.lacounty.gov

These comments are responded to the DREIR Response to Comments.

CalRecycle
DEPARTMENT OF RESOURCES RECYCLING AND RECOVERY
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P.O. BOX 4025, SACRAMENTO, CALIFORNIA 95812

May 6, 2014

RECEIVED
MAY 06 2014
STATE CLEARING HOUSE

Ms. Paula Kelly, Senior Planner
City of Irwindale
5050 North Irwindale Avenue
Irwindale, CA 91706

Subject: **SCH No. 2013051029** – Draft Environmental Impact Report for Irwindale Material Recovery Facility and Transfer Station, City of Irwindale – Los Angeles County

Dear Ms. Kelly:

Thank you for allowing the Department of Resources Recycling and Recovery (CalRecycle) staff to provide comments for this proposed project and for your agency's consideration of these comments as part of the California Environmental Quality Act (CEQA) process.

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All other potentially significant environmental impacts would be reduced to a less than significant impact level with implementation of the Mitigation Program identified within the DEIR.

Project Variant
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COMMENTS

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Sincerely,

Martin Perez
Permitting and Assistance Branch - South Unit
Waste Permitting, Compliance, and Mitigation Division
CalRecycle

cc: Virginia Rosales, Supervisor
Permitting and Assistance Branch - South Unit

Gerardo Villalobos, Chief
Department of Public Health
County of Los Angeles
5050 Commerce Drive,
Baldwin Park, CA 91706
gvillalobos@ph.lacounty.gov

Comments noted and addressed in the EIR.

DEPARTMENT OF RESOURCES RECYCLING AND RECOVERY

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June 7, 2013

RECEIVED
JUN - 7 2013
STATE CLEARING HOUSE

Ms. Paula Kelly, Senior Planner
City of Irwindale
5050 North Irwindale Avenue
Irwindale, CA 91706

Subject: SCH No. 2013051029 – Notice of Preparation of a Draft Environmental Impact Report for the Irwindale Material Recovery Facility and Transfer Station, Los Angeles County

Dear Ms. Kelly,

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Based on the preliminary assessment of the environmental effects potentially stemming from the proposed project, the Lead Agency has determined that an EIR will need to be prepared. The following components will be analyzed in order to determine the level of impact:

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- Air Quality and Greenhouses Gases
- Biological Resources
- Cultural Resources
- Geology and Soils
- Hazards and Hazardous Materials
- Land Use
- Noise
- Public Services and Utilities
- Transportation/Traffic
- Water Quality and Hydrology
- Alternatives to the Project

COMMENTS

As required by Title 14, California Code of Regulations (14 CCR), Sections 15126.2, 15126.4, and 15126.6, CalRecycle staff requests that the DEIR contain detailed considerations and discussions of the significant effects, mitigation measures, and alternatives for the proposed project including the alternative of "no project."

The Draft EIR must detail all provisions in order to indicate the ability of the facility to meet State Minimum Standards for environmental protection (14 CCR Section 17000 et seq.). The following internet link accesses checklists developed by CalRecycle staff as a guide to Lead Agencies in the preparation of EIRs for transfer/processing facilities:

http://www.calrecycle.ca.gov/SWFacilities/Permitting/CEQA/Documents/Guidance/Transfer.htm

Days and Hours of Operation
The DEIR should be clear as to what the days and hours of operation are for the specific functions such as the receipt of material, transferring material, processing of material, site maintenance, and etcetera.

Waste Characterization
Indicate in the DEIR the specific types of waste to be accepted as well as those types of waste to be excluded and/or prohibited.

Tonnage
All materials that enter the transfer station must pass over the scale and be analyzed for in the DEIR minus equipment and supplies. Please include the methods and calculations to determine the maximum storage capacity.

Equipment
Please describe the equipment, in quantity and type, to be used during operation of the proposed project.

Hazardous Waste Storage
It states that the project will not intend to accept hazardous materials though a load checking program will be provided. Since there is potential for accidental acceptance of these wastes, please indicate where the temporary hazardous material storage area will be located and describe the removal frequency and end destination.

Buildings and On-Site Improvements
Describe in detail the design characteristics of improvements to be made to the site. Describe the design of the buildings where MSW, construction and demolition waste, green waste, and self haul waste will be handled.

Describe design features to attenuate for odor, dust, vectors, litter, and noise. Will there be negative pressurization or misters to control odor and dust? What will be the cleaning frequency?

Land Use Compatibility
The DEIR should identify the proposed facility's surrounding land use with a description of the density of the occupancy for commercial and residential areas. The DEIR should be specific regarding the distance to the nearest sensitive receptor(s).

The project's surrounding land use must be designated as compatible with the proposed/current land uses at the project site. The local government, in whose jurisdiction the facilities will be located, must make a finding that the facility is consistent with the General Plan (Public Resources Code (PRC) Section 50000) and is identified in the most recent County Solid Waste Management Plan (PRC Section 50001).

Traffic
Peak traffic volumes should be projected over a minimum of five years for the project at peak tonnages. On-site traffic circulation for the proposed project should be discussed in detail in the DEIR.

A traffic study may be necessary to determine whether the existing infrastructure can handle the projected vehicular movement, and whether improvements may be necessary to accommodate increased traffic; including the repair and maintenance of existing roads, additional lighting, turn lanes and pedestrian walk-ways; as well as cumulative impacts on the circulation within the transfer station vicinity (i.e., ingress and egress).

Air Quality/Odor
Impacts on air quality from potential dust generation during operations should be analyzed.

The distance to the nearest residential and/or commercial odor receptors, as well as the direction of the prevailing wind, should be identified. Mitigation measures, which will be employed to address impacts for the proposed project, should be incorporated into the DEIR.

Noise
Activities associated with vehicular transport of waste materials and the use of equipment to process materials may result in significant on-site and off-site noise levels. A noise study may be necessary if local receptors are impacted, and should be included in the DEIR. Appropriate noise-attenuating mitigation measures, which can be implemented to reduce noise levels, should be incorporated into the DEIR. Short-term and cumulative impacts should be assessed as well as operations related noise.

Cumulative Impacts
It is important that the DEIR address the cumulative impacts resulting from the proposed project as well as those incremental impacts resulting from the proposed project's implementation.

Solid Waste Facilities Permit
The Los Angeles County Department of Public Health's Solid Waste Management Program (as the Local Enforcement Agency (LEA) for Los Angeles County) and CalRecycle are responsible for providing regulatory oversight of solid waste handling activities such as transfer/processing facilities. The permitting and regulatory requirements for transfer/processing are contained in Title 14 and Title 27 of the California Code of Regulations (14 or 27 CCR).

The proposed project will require concurrence by CalRecycle in the issuance, by the LEA, of a Solid Waste Facilities Permit for the operation of a Large Volume Transfer Station. Please contact the LEA at 626.430.5540 to discuss permit requirements for the project.

CONCLUSION

CalRecycle staff thanks the Lead Agency for the opportunity to review and comment on the environmental document and hopes that this comment letter will be useful to the Lead Agency preparing the DEIR and in carrying out their responsibilities in the CEQA process.

CalRecycle staff requests copies of any subsequent environmental documents, copies of public notices and any Notices of Determination for this project. Refer to 14 CCR, Section 15094(d) that states:

> If the project requires discretionary approval from any state agency, the local lead agency shall also, within five working days of this approval, file a copy of the notice of determination with the Office of Planning and Research [State Clearinghouse].

If the environmental document is certified during a public hearing, CalRecycle staff requests ten days advance notice of this hearing. If the document is certified without a public hearing, CalRecycle staff requests ten days advance notification of the date of the certification and project approval by the decision-making body.

If you have any questions regarding these comments, please contact me at 951.782.4194 or by e-mail at Martin.Perez@calrecycle.ca.gov.

Sincerely,



Martin Perez
Permitting and Assistance Branch - South Unit
Waste Permitting, Compliance, and Mitigation Division
CalRecycle

cc: Virginia Rosales, Supervisor
Permitting and Assistance Branch - South Unit

Gerardo Villalobos, REHS IV
Department of Public Health
County of Los Angeles
5050 Commerce Drive,
Baldwin Park, CA 91706
gvillalobos@ph.lacounty.gov

Response to Comment Letter 17

Response 17-1: The City concurs that the summary of the project description is accurate.

Response 17-2: The Valley County Water District has withdrawn its intent to purchase the 1.9 acre area within the project site; and therefore there is no Project variant to be considered. Refer to Recirculated Draft EIR comment letter 20 below [dated September 29, 2014] regarding the VCWD's withdrawal of its intent to acquire the aforementioned parcel.

Response 17-3: Comment noted. The City understands that a MRF/TS is required to comply with the State standards for solid waste handling defined in California Code of Regulations (CCR), Title 14, Chapter 5, Article 3.2, Section 18221.6 and Chapter 3, Article 6.0, where a Transfer/Processing Report is required to describe the facility operations. As such, the applicant, Athens Services, will prepare and submit this report at the onset of operations, as required.

See also response to Comment No. 3-1 above for details regarding the required contents of the Transfer/Processing Report.

Response 17-4: Comment noted. Copies of the formal CEQA findings and related statements and resolutions will be provided to CalRecycle when the City has completed its decision-making process for the proposed project.

Response 17-5: Comment noted. The City acknowledges the County Department of Public Health's role as the Local Enforcement Agency (LEA) and the requirement for CalRecycle's concurrence in the issuance of the Solid Waste Facilities Permit.

Response 17-6: The commenter provides suggested text. Text on page ES-3 in the Recirculated Draft EIR is revised as follows (new text is <u>underlined</u> and strikethrough is used for deleted text):

"*It should be noted:* Readers who previously commented should not repeat those comments and should focus any new comments on the revised portions of the RDEIR [Executive Summary, and Chapters 1.0, 2.0, 3.3, 3.12, <u>4.0,</u> and 5.0]. Readers who did not previously comment are encouraged to provide comments related to all portions of the RDEIR, including those chapters that have not been revised. The City will respond to written comments as required by State CEQA Guidelines §15088.5(f)(2) listed below. Pursuant to State CEQA Guidelines §15088.5(f):"

Text on page ES-4 in the Recirculated Draft EIR is revised as follows (new text is <u>underlined</u> and strikethrough is used for deleted text):

"(2) The Recirculated Draft EIR Executive Summary and Chapters 1.0, 2.0, 3.3, 3.12, <u>4.0,</u> and 5.0; and"

Text on page ES-18 in the Recirculated Draft EIR is revised as follows (new text is underlined and strikethrough is used for deleted text):

"***City of Arcadia (June 6, 2013)***

- Requests copy of the traffic study.

CalRecycle (June 7, 2013)"

Text on page ES-21 in the Recirculated Draft EIR is revised as follows (new text is underlined and strikethrough is used for deleted text):

"~~The EIR is being made available for public review and comment for a period of 45 days beginning on April 2, 2014 and ending on May 16, 2014.~~ The RDEIR review begins on August 11, 2014 and ends on September 24, 2014."

The Notice of Preparation comment letters were mistakenly left out of Appendix A. The City's website provides the corrected Appendix A containing the NOP comment letters. [http://www.ci.irwindale.ca.us/DocumentCenter/View/952] The Final EIR Appendix A includes the NOP comment letters.

Response 17-7: The commenter provides suggested text. Text on page 1.0-3 of the Recirculated Draft EIR is revised as follows (new text is underlined and strikethrough is used for deleted text):

"*It should be noted:* Readers who previously commented should not repeat those comments and should focus any new comments on the revised portions of the RDEIR [Executive Summary, and Chapters 1.0, 2.0, 3.3, 3.12, 4.0, and 5.0]. Readers who did not previously comment are encouraged to provide comments related to all portions of the RDEIR, including those chapters that have not been revised. The City will respond to written comments as required by State CEQA Guidelines §15088.5(f)(2) listed below. Pursuant to State CEQA Guidelines §15088.5(f):"

Text on page 1.0-12 in the Recirculated Draft EIR is revised as follows (new text is underlined and strikethrough is used for deleted text):

"***City of Arcadia (June 6, 2013)***

- Requests copy of the traffic study.

CalRecycle (June 7, 2013)"

See Response to Comment 17-6.

Response 17-8: Text on page 2.0-7 in the Recirculated Draft EIR is revised as follows (new text is underlined and strikethrough is used for deleted text):

"They also have responsibilities for guaranteeing the proper storage and transportation of solid wastes. ~~CalRecycle (in conjunction with~~ The County of Los Angeles, Department of Public Health~~)~~ is the LEA for the *Irwindale Materials Recovery Facility and Transfer Station Project*."

Refer to Draft EIR Response 3-1.

Text on page 2.0-9 in the Recirculated Draft EIR is revised as follows (new text is underlined and strikethrough is used for deleted text):

"A licensed hazardous waste handling contractor will pack and remove hazardous materials every 90 days. Liquid wastes and sludges shall also be prohibited to be accepted or stored at the facility without written approval from appropriate agencies and the LEA, pursuant to 14 CCR Section 17407.5(c)."

The parking specifications for the project site provided in Table 2-2 are estimates only based upon the preliminary Project design. The City Planning and Engineering Departments will finalize the parking specification during final design according to City requirements and standards for this project site.

The Applicant, Athens Services will be required to prepare a Transfer/Processing Report for permitting of the MRF facility.

Response 17-9: Refer to Response 17-8 regarding parking specifications.

The Valley County Water District has withdrawn its proposal to acquire a portion of the proposed project site, and therefore Table 2-5, regarding the project variant is no longer relevant to the proposed project. Refer to Comment Letter 20 from the VCWD.

Table 2-6 on page 2.0-23 in the Recirculated Draft EIR is revised as follows (new text is underlined and strikethrough is used for deleted text):

AGENCY	APPROVAL / AGREEMENT / PERMIT
~~California Department of Conservation, Division of Recycling~~ California Department of Resources Recycling and Recovery (CalRecycle)	Beverage container recycling certifications

Text on page 3.11-17 in the Recirculated Draft EIR is revised as follows (new text is underlined and strikethrough is used for deleted text):

"Residual waste that cannot be recycled or otherwise recovered, including waste generated on-site during construction and operation, would be transported to one of several contracted landfills such as Mid Valley landfill in Rialto (San Bernardino County), or San Timoteo landfill in Redlands (San Bernardino County). ~~or Chiquita Canyon landfill in Castaic (Los Angeles County)~~."

Text on page 3.12-93 in the Recirculated Draft EIR is revised as follows (new text is underlined and strikethrough is used for deleted text):

"Emergency site access to the Proposed Project is available through the fire department access driveway (refer to Site Plan). This driveway is designed to provide adequate emergency access to the site for use by emergency vehicles only. The location of this driveway is along Live Oak

Avenue, at the southwestern corner of the site. The design of the site access for emergency vehicles complies with the California Fire Code and as adopted and implemented in the City, and construction will be required to meet Fire Code standards. As such, there are no reasonably foreseeable impacts from inadequate emergency access. No mitigation is required."

Text on page 4.0-5 in the Recirculated Draft EIR is revised as follows (new text is underlined and strikethrough is used for deleted text):

"Traffic-related noise would be significant at the exterior area of offices and businesses between the site and the freeways along Arrow Highway west of Rivergrade Road."

The City will include CalRecycle in any notification at least ten days prior to a public hearing, and will provide copies of subsequent environmental documentation, statements and findings regarding this project.

The City thanks CalRecycle for participating the public review process.

DEPARTMENT OF TRANSPORTATION
DISTRICT 7-OFFICE OF TRANSPORTATION PLANNING
100 S. MAIN STREET, MS 16
LOS ANGELES, CA 90012
PHONE (213) 897-9140
FAX (213) 897-1337
www.dot.ca.gov

Serious drought.
Help save water!

September 22, 2014

Comment Letter 18

Ms. Paula Kelly
City of Irwindale
5050 North Irwindale Ave
Irwindale, CA 91706

Re: Materials Recovery Facility and Transfer Station
Revised Draft EIR, SCH# 2013051029
IGR#140817/EA, LA/605/ PM 23.9

Dear Ms. Kelly:

The California Department of Transportation (Caltrans) has reviewed the revised Traffic Generation and Circulation chapter in the revised Draft Environmental Impact Report (DEIR) for the proposed Materials Recovery and Transfer Station project. The proposed project consists of a fully enclosed building with separate areas to receive, process, and transfer mixed municipal solid waste, green waste, construction and demolition materials, and waste hauled in by self-haulers. Operations would consist of sorting, consolidating, and compacting received materials, and then re-loading all material into transfer trucks for transport to additional processing and/or disposal facilities.

1

In our previous correspondence dated May 12, 2014, we noted that the Traffic Impact Analysis identified potential significant transportation impacts to the I-605 northbound off-ramp to Live Oak and I-605 southbound off-ramp to Arrow Highway and the proposed mitigation improvements. We reiterate that Caltrans will cooperate with the City and project applicant to implement the proposed improvements MM T-1 and MM T-2 in a timely manner. The revised TIA states that the applicant is being required to complete all MM T-1 and MM T-2 mitigation improvements, which is more than the identified share of the project's impacts to Caltrans facilities.

The revised TIA also states that "the City cannot ensure the mitigation measures will get implemented before project impacts will occur as the property is outside the City's jurisdiction. Therefore, the impacts remain significant and unavoidable even with imposition of the mitigation measures". Although these improvements are not within the City's jurisdiction, the City as the lead agency can require that these improvements be implemented in a timely manner or before the facility reaches full capacity.

To address the City's contribution to cumulative transportation impacts on the regional highway system including I-210, the City assured Caltrans that it will remain engaged in contributing to regional solutions. For instance, the Foothill Gold Line extension will include a station in Irwindale and it will be connected to the City with bus service. Consequently, project employees

would have an alternate option to commute to work via public transit. Furthermore, the City's General Plan includes a Regional Signalization Program and will continue to coordinate with the regional transportation agencies such as Caltrans, County of Los Angeles Department of Public Works, and Metro accordingly. 1 con't

If you have any questions regarding these comments, you may contact Elmer Alvarez, project coordinator at (213) 897-6696 or me at (213)897-9140.

Sincerely,

DIANNA WATSON
IGR/CEQA Branch Chief

Responses to Comment Letter 18

Response 18-1: Comments provided are noted. The City of Irwindale is engaged in consultation with Caltrans regarding the project, and is fully committed to cooperating with Caltrans for implementation of traffic mitigation at the I-605off-ramps at Live Oak and Arrow Highway.

To address Caltrans's first letter on the DEIR (May 22, 2014) concerning the potential impacts to the I-210 freeway, the City is working closely with Caltrans in identifying possible mitigation measures that can be implemented to address cumulative impacts and existing deficiencies or projected deficiencies on I-210 immediately east and west of the Irwindale Avenue Interchange. As noted, these include a station in Irwindale for the Foothill Gold Line extension that will be connected to the City with bus service so that project employees would have an alternate option to commute to work via public transit. In addition, the City's General Plan includes a Regional Signalization Program and the City will continue to coordinate with the regional transportation agencies such as Caltrans, County of Los Angeles Department of Public Works, and Metro accordingly for development and implementation of traffic management solutions.

The City appreciates Caltrans involvement in the public review process and participation as a responsible agency.

South Coast
Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

Comment Letter 19

SENT VIA USPS AND E-MAIL:
PaulaKelly@ci.Irwindale.ca.us

September 19, 2014

Ms. Paula Kelly, Senior Planner
City of Irwindale, City Hall
5050 North Irwindale Avenue
Irwindale, CA 91706

Revised Draft Environmental Impact Report (RDEIR) for the Proposed Irwindale Materials Recovery Facility and Transfer Station (SCH NO. 2013051029)

The South Coast Air Quality Management District (SCAQMD) staff appreciates the opportunity to comment on the above-mention RDEIR. The following comments are meant as guidance for the Lead Agency and should be incorporated into the Final CEQA document. 1-A

Based on the project description, the proposed Materials Recovery Facility and Transfer Station (MRF/TS) project is designed to receive, process and transfer up to 6,000 tons per day (tpd) based on estimated averages of 3,000 tpd of municipal solid waste, 1,000 tpd of green waste, 1,000 tons per day of construction and demolition materials, and 1,000 tpd of self-haul waste. The proposed MRF/TS operations would consist of sorting, consolidating, and compacting received materials, and then re-loading all material into transfer trucks for transport to additional processing and/or disposal facilities. In addition to processing up to 6,000 tons per day (tpd) of the different waste, the proposed project will generate up to 3,897 total daily trips including 2,456 truck trips, 751 trips associated with the convenience store and 690 daily employee trips. The facility plans to have approximately 345 total full time employees scheduled in three separate shifts and will operate 24 hours per day, 365 days a year. Construction is planned to take approximately 18 months and be completed in late 2015 or early 2016.

The SCAQMD staff is concerned that the siting of the Irwindale MRF/TS Facility is contrary to both the California Air Resources Board (CARB) Guidance in its Air Quality and Land Use Handbook and SCAQMD Rule 410 – Odors from Transfer Stations and Material Recovery Facilities because it is within 1,000 feet of nearby sensitive receptors. Additional comments concerning Rule 410 address requirements for controlling potential odors that could affect nearby sensitive receptors from the facility operations. 1-B Further, staff has concerns about the air quality modeling assumptions used for estimating regional, localized and health effect impacts in the RDEIR. Specifically, the modeling inputs for all applicable air quality and health effects analyses should be consistent with the assumptions described in the Final EIR (FEIR). Otherwise, project air quality and 1-C

health effect impacts to nearby sensitive receptors from facility operations are potentially underestimated. Finally, the SCAQMD staff is concerned that all feasible mitigation are not incorporated into the project and should be included in the Final CEQA document. Further details are included in the attachment. 1-C con't 1-D

Pursuant to Public Resources Code Section 21092.5, please provide the SCAQMD staff with written responses to all comments contained herein prior to the adoption of the Final Environmental Impact Report. The SCAQMD staff is available to work with the Lead Agency to address these issues and any other air quality questions that may arise. Please contact Gordon Mize, Air Quality Specialist – CEQA Section, at (909) 396-3302, if you have any questions regarding these comments. 2

Sincerely,

Edward A. Eckerle
Program Supervisor
Planning, Rule Development & Area Sources

Attachment

EE:IM:DJ:JB:GM

LAC140808-02
Control Number

Siting of an Incompatible Land Use

1. In the RDEIR, the Lead Agency shows a distance of 100 meters (approximately 325 feet) to the nearest sensitive receptor (residences located south of the project site) from the project site. [1] Further, almost the entire proposed project site is located within 1,000 feet of existing sensitive receptors (family residences) south of the project site. This is confirmed by the location map in the project description and also by an aerial map inspection. Based on guidance from CARB's Air Quality and Land Use Handbook (CARB Land Use Handbook), CARB recommends a buffer of at least 1,000 feet between land uses that will have 100 or more trucks per day and sensitive receptors. [2] The CARB Land Use Handbook is a general reference guide for evaluating and reducing air pollution impacts associated with new projects that go through the land-use decision making process. In accordance with the state CEQA Guidelines §15126.4 (a)(1)(D), the Lead Agency should discuss the proposed siting of this land use and any potential impacts resulting from any proposed mitigation related to the CARB Land Use Handbook guidance in the Final EIR. 3-A

Significant regional and localized impacts have been estimated, mostly from the projected 2,456 daily truck trips operating at the project site, many that will be diesel fueled, exposing sensitive receptors to diesel particulate matter emissions that are determined by the California Air Resources Board (CARB) to be carcinogenic. Although 68 percent of the waste collection trucks operated by the applicant are alternative fueled (CNG) in 2014,[3] the remainder of waste collection trucks operated by the applicant and all other three-axle plus trucks, including transfer trucks will be diesel fueled. 3-B

SCAQMD Rules and Regulations

2. Starting on page 3.3-13 in the Air Quality Section, the Lead Agency has listed rules and regulations that apply to the proposed project. In addition to these rules and regulations, the Final EIR should include an evaluation of the following: 4

   - Rule 1133 - Composting and Related Operations - General Administrative Requirements
   - Rule 1133.1 - Chipping and Grinding Activities
   - Rule 1133.2 - Emission Reductions from Co-Composting Operations
   - Rule 1133.3 - Emission Reductions from Greenwaste Composting Operations
   - Rule 1403 - Asbestos Emissions from Demolition/Renovation Activities

Odor Management and Practices Requirements

3. In addition to the Lead Agency's discussion of how the proposed project would comply with SCAQMD Rule 410 (Odors from Transfer Stations and Material 5

[1] Chapter 3.3 (Air Quality, Greenhouse Gas, Odor, and Health Risk Assessment), Page 3.3-23.
[2] CARB AQ and Land Use Handbook: http://www.arb.ca.gov/ch/handbook.pdf
[3] Ibid. 1, Page 3.3-39.

Recovery Facilities), additional requirements for Rule 410 should be incorporated in the FEIR. On page 3.3-14 and elsewhere in Chapter 3.3 of the RDEIR, the Lead Agency discusses the requirements of Rule 410. The SCAQMD staff finds that, while the RDEIR indicates that an enclosure will be constructed in order to comply with Rule 410, the description of the enclosure fails to adequately ensure that it will comply with Rule 410 (d)(1)(A) and (B). Rule 410 (d)(1)(A) and(B) specifies enclosure opening and ventilation requirements. The FEIR should include a discussion of how the enclosure will comply with Rule 410(d)(1)(A) and (B). 5 con't

Waste Material Containing Asbestos

4. The RDEIR fails to mention compliance with SCAQMD Rule 1403 - Asbestos Emissions from Demolition/Renovation Activities and Federal Regulations Subpart M, NESHAP – National Emission Standard for Asbestos. The Lead Agency should be aware that, as a facility accepting construction and demolition (C & D) material, the facility may not accept any asbestos containing waste material. 6

Compliance with SCAQMD Rules and Regulations Is Not Mitigation

5. On page 3.3-43 of the RDEIR, the Lead Agency lists compliance with SCAQMD Rule 461 - Gasoline Transfer and Dispensing and Rule 1193 - Clean On-Road Residential and Commercial Refuse Collection Vehicles as mitigation for operational air quality impacts. Complying with a rule, regulation, law, etc., should not be considered as mitigation if it is required. Instead, the effects of complying with a rule, e.g., Rules 461 and 1193 should be part of the project description and incorporated into the project-specific impact calculations. 7

Air Quality Analysis - Operations

CalEEMod Fleet Mixture Percentages

6. The fleet mixture percentage inputs in the CalEEMod land use model should be consistent with the number of vehicles listed in the RDEIR traffic section. Specifically, the CalEEMod model fleet mixture percentage input files provided by the Lead Agency to SCAQMD staff for medium and heavy-heavy duty vehicle categories total approximately five percent of the total vehicle fleet but the percentage of heavy-heavy duty daily truck trips (packer trucks, end dump trucks, roll-off trucks, transfer trucks and, depending on their size, the self-haul trucks) listed in the traffic section [4] make up approximately 63 percent of the proposed project's total daily trips. The CalEEMod modeling fleet mixture percentages should be revised consistent with the traffic trip generation study to avoid substantially underestimating these and other related impacts in the FEIR. 8

[4] Table 3.12-11 Project Trip Generation Summary, Chapter 3.12 Traffic Generation and Circulation, Page 3.12-43.

CalEEMod - Transfer Truck Trip Lengths

7. In the narration,[5] the RDEIR describes a one-way 38-mile weighted average travel distance from the proposed Irwindale Facility site hauling waste materials to the different landfill sites; a 34-mile trip length for recycling materials; and a 73-mile trip destination distance for composting materials. In the CalEEMod input files provided by the Lead Agency to SCAQMD staff, however, an average one-way trip length of 6.9 miles was used to estimate operational impacts for the transfer trucks hauling waste, recycling and composting materials to the different disposal sites. In the FEIR, the modeling should be consistent with the distances listed in the Revised DEIR, perhaps by performing separate calculations. As an alternative, the Lead Agency could limit activities, as a condition of occupancy, to the levels described in the analysis. Otherwise, project long-term operational air quality impacts and impacts from other related analyses will be substantially underestimated. 9

Localized Impacts and Health Risk Assessment (HRA)

8. While the Air Quality section of the RDEIR and corresponding Appendix C has been updated, there is still some key information missing. For the dispersion modeling sections (both LST and HRA), it is not clear how the emissions for each source (roadway or on-site) were calculated and applied to the AERMOD results to get the project's impact. Although the electronic files contain spreadsheets showing the project's impacts, it is difficult to understand what factors were used. Please update Appendix C with more detailed information, such as sample calculations showing how the project's impacts were estimated, and sample calculations showing how the emissions from CalEEMod and/or EMFAC were used to determine the emission rates of the sources modeled. Without these details, it is not possible to review the Air Quality impacts stated in the recirculated DEIR for accuracy. 10

9. According to the electronic files, project emissions were modeled with emission adjustments by season and hour of day of week without explaining how the adjustment was calculated. According to the project description, the project will be permitted to operate 24 hours per day; seven days per week but will likely operate at a reduced schedule. The Air Quality analysis in the FEIR should therefore explain these two scenarios and analyze the air quality impacts from the scenario which results in the higher impact(s) since it is possible that one scenario will result in higher hourly impacts while the other will result in higher annual impacts. It also appears that the emission rates used were from the 24 hours per day; seven days per week operating scenario but modeled with a reduction in the operating hours. This would likely lead to an under-estimation of the project's modeled impacts for both criteria pollutants and the HRA. 11

10. Although state regulations only allow five minutes for idling at one time, trucks may idle for five minute periods several times on-site (e.g., queuing to the unloading/loading area(s), at the unloading/loading area(s) and queuing after 12

[5] Chapter 3.3 – Air Quality, GHG, Odor, and HRA, Page 3.3-38.

unloading/loading before departure, etc.). The SCAQMD default for idling is 15 minutes on-site. The actual idle times used in the air quality analyzes is unclear. If less than 15 minute of idling is used in the LST and HRA analyses, a mitigation measure should be added that requires the project proponent to limit idling to the time used in the LST and health risk assessment. 12 con't

Modeling for the Proposed Gas Station and SCAQMD Permitting Requirements

11. Because the SCAQMD is a permitting agency for this portion of the project, hence a responsible agency under CEQA, the modeling conducted for the CEQA analysis should be equivalent, or more conservative, to what is used for the permitting analysis. It appears that there are several aspects of the modeling that may not be consistent with modeling requirements for permitting, as discussed below. 13-A

    a. In the project description, there is a convenience store next to the gas station, however, in the modeled files, building downwash from the convenience store was not considered. In the FEIR, gas station impacts should therefore be re-analyzed with the convenience store or provide a justification why building downwash is not a factor.

    b. The FEIR should also provide justification for the gas station modeling assumptions such as the exit velocities and volume source parameters for refueling and spillage. 13-B

    c. The dispersion modeling for the gas station should comply with the requirements of SCAQMD Rule 461 - Gasoline Transfer and Dispensing**.** 13-C

Modeling for the Health Risk Assessment (HRA)

12. In the HRA modeling, receptors were only placed in residential areas. The HRA in the FEIR should be revised the receptor grid should start at the project boundary According to SCAQMD HRA modeling procedures,. The cancer risks at each receptor can then be calculated for either a worker or residential receptor, based on the receptor type. 14

13. The roadways were modeled as volume sources and an area source representing the on-site Diesel Particulate Matter (DPM) emissions was included in the HRA, however, there was no description of how the source parameters and emissions were calculated. Please provide more detailed information in the FEIR as to how the source parameters and emission rates were calculated for each source. 15

Operation Mitigation Measures

14. The Lead Agency has determined that the proposed project will generate significant operational air quality impacts for ROG and NOx. Further analyses by the Lead Agency based on SCAQMD staff comments in this letter may result in higher emission estimates and health effect impacts. In the event the Lead Agency's revised estimates determine that project regional, localized or health effect impacts will exceed or further exceed recommended significance thresholds (mostly attributed to mobile source tailpipe emissions from vehicles operating at the proposed facility), the SCAQMD staff encourages the Lead Agency to develop a common set of enforceable mitigation measures to reduce those emissions to the maximum extent feasible. As the Lead Agency is aware, heavy-duty trucks are the largest source of NOx emissions in our basin and NOx emissions must be reduced by approximately two thirds beyond existing rules and regulations in order to meet air quality standards as required by 2023. Without meeting air quality standards, our region faces federally mandated sanctions, including possible loss of transportation funding. The SCAQMD staff recommends the following changes and additional measures in addition to the measures listed starting on page 3.3-42 of the RDEIR to further reduce significant air quality impacts: 16-A

    Recommended change:

    ~~MM AQ 16 – Older (prior to 2010 model year) transfer trucks shall be equivalent to Tier 2 emission standards (such as particulate filter traps) prior to onsite us.~~ 16-B

    At project start, all heavy duty trucks entering the property must meet or exceed 2010 engine emission standards specified in California Code of Regulations Title 13, Article 4.5, Chapter 1, Section 2025.

    Recommended additional measures:

    The SCAQMD staff recommends that the condition of occupancy documents identify that occupants are required to implement the following measures:

- Limit the daily number of trucks allowed at each facility to levels analyzed in the Final EIR. If higher daily truck volumes are anticipated to visit the site, the Lead Agency should commit to re-evaluating the project through CEQA prior to allowing this higher activity level.
- The facility operator will maintain a log of all trucks entering the facility to ensure that on average, the daily truck fleet meets the quantities and emission standards listed in the RDEIR. This log should be available for inspection by city staff at any time.
- The facility operator will ensure that onsite staff in charge of keeping the daily log and monitoring for excess idling will be trained/certified in diesel health effects and

technologies [for example, by requiring attendance at CARB approved courses (such as the free, one-day Course #512)].

- Design the site such that any check-in point for trucks is well inside the facility to ensure that there are no trucks queuing outside of the facility.
- On-site equipment should be alternative fueled.
- Have truck routes clearly marked with trailblazer signs so trucks will stay on truck routes established by the Lead Agency and not enter residential areas.
- Use street sweepers that comply with SCAQMD Rules 1186 and 1186.1 (recommend sweepers using reclaimed water).
- Install solar panels on all available roof space. If this isn't feasible, then at a minimum all buildings and electrical infrastructure should be designed to accommodate potential future solar panel upgrades.

16-B con't

Alternative Fueled Truck Phase-In Schedule

15. Because the proposed project is estimated to generate significant regional emissions, the Lead Agency should require further mitigation that requires accelerated phase-in for non-diesel powered trucks. For example, natural gas trucks, including Class 8 HHD trucks, are commercially available today. Natural gas trucks can provide a substantial reduction in health risks, and may be more financially feasible today due to reduced fuel costs compared to diesel. In the FEIR, the Lead Agency should require a phase-in schedule for these cleaner operating trucks to reduce project impacts. SCAQMD staff is available to discuss the availability of current and upcoming truck technologies and incentive programs with the Lead Agency and project applicant.

    At a minimum, require upon occupancy that do not already operate 2007 and newer trucks to apply in good faith for funding to replace/retrofit their trucks, such as Carl Moyer, VIP, Prop 1B, or other similar funds. Should funds be awarded, the occupant should also be required to accept and use them.

17

Electric Vehicle (EV) Charging Stations

16. Trucks that can operate at least partially on electricity have the ability to substantially reduce the significant NOx impacts from this project. Further, trucks that run at least partially on electricity are projected to become available during the life of the project as discussed in the 2012 Regional Transportation Plan. It is important to make this electrical infrastructure available when the project is built so that it is ready when this technology becomes commercially available. The cost of installing electrical charging equipment onsite is significantly cheaper if completed when the project is built compared to retrofitting an existing building. Therefore, the SCAQMD staff recommends the Lead Agency require the proposed facility and other plan areas that allow truck parking to be constructed with the appropriate infrastructure to facilitate

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sufficient electric charging for trucks to plug-in. Similar to the City of Los Angeles requirements for all new projects, the SCAQMD staff recommends that the Lead Agency require at least 5% of all vehicle parking spaces (including for trucks) include EV charging stations.[6] Further, electrical hookups should be provided at the onsite truck stop for truckers to plug in any onboard auxiliary equipment. At a minimum, electrical panels should appropriately sized to allow for future expanded use. 18 con't

CNG Fueling Station and Convenience Site

17. Because proposed project generate significant regional NOx operational impacts, the SCAQMD staff recommends that the project pro-actively take measures that could reduce emissions sooner rather than later. The SCAQMD staff therefore recommends that the Lead Agency ensure the availability of alternative fueling facility (e.g., natural gas) to serve the project site prior to operation of any large truck operation uses within the project area. 19

[6] http://ladbs.org/LADBSWeb/LADBS_Forms/Publications/LAGreenBuildingCodeOrdinance.pdf

Response to Comment Letter 19

The City of Irwindale's consultants met with SCAQMD on December 3, 2014 to discuss their comments. Representatives of the SCAQMD included Gordon Mize, Air Quality Specialist CEQA Section, and Dr. Jillian Baker. Representatives for the City of Irwindale included air quality specialists Paul Miller and Michael Ratte, and Dr. Jeff Harvey, Senior Environmental Scientist. The consultant team explained the analytical methodologies employed in the air quality assessment and modeling in response to questions that had been raised by the SCAQMD staff, particularly noting that the CalEMod average trip length only applied to a subset of the traffic and not to most of the truck trips. As follow-up to the meeting, Mr. Ratte provided the supporting computer files related to the Health Risk Assessment to assist in the SCAQMD review. Subsequent to the review of the files, the SCAQMD indicated they have no additional comments on the files. Staff did request that the City send the Final EIR and any responses to the SCAQMD comments (this Comment Letter 19).

Response 19-1A: The summary of the Project Description is noted and reflects information contained within the Recirculated DEIR.

Response 19-1B: See response to Comment 19-3A regarding facility siting distances. See response to Comment 19-5 regarding odor mitigation measures.

Response 19-1C: The analysis is consistent with assumptions in the Final EIR and does not underestimate air quality emissions or potential adverse impacts. See Response to Comments 19-8 through 19-15 that specifically address the issues of air quality modeling assumptions, resultant health impacts, and methodology, assumptions, data, and calculations as presented in the appendix materials within the Recirculated DEIR.

Response 19-1D: Mitigation measures were included to address fugitive dust and combustion emissions from construction activities. The construction related emissions for CO, NOx, PM10, and PM2.5 were determined to be less than significant. Mitigation measures also address ROG emissions from architectural coatings. The construction related emissions for ROG emissions were determined to be less than significant with mitigation.

The Recirculated Draft EIR includes an extensive list of mitigation measures. See the air quality mitigation measures (AQ-1through AQ-22) in the Recirculated Draft EIR in Table ES-2 beginning on page ES-27.

THRESHOLD AQ-2 acknowledges that the ROG and NOx operational emissions would remain significant and unavoidable. SCAQMD Rule 1193 (Clean On-Road Residential and Commercial Refuse Collection Vehicles) requires public and private solid waste collection fleet operators to acquire alternative-fuel solid waste collection, roll-off, or transfer trucks when procuring or leasing these vehicles for use by or for governmental agencies. According to data received from the Project Applicant, approximately 68 percent of the trucks operated by the Applicant are fueled by CNG in 2014. As new trucks are procured or replaced, they must comply with the requirements of Rule 1193.

Mitigation Measures AQ-12 through AQ-18 (page 3.3-43) would reduce operational emissions from the Proposed Project. **Mitigation Measures AQ-12 through AQ-18** would reduce ROG and NO_X emissions by at least 40 percent, and PM_{10} and $PM_{2.5}$ emissions by 45 percent for onsite off-road equipment. However, the operational emissions of ROG and NOx would be significant and unavoidable even with mitigation. The City believes it has proposed the greatest extent of feasible

mitigation measures to reduce operational ROG and NOx emissions. Subsequent Response to Comments 19-16 through 19-18 specifically address the issue of additional mitigation measures per SCAQMD comments.

Requiring the applicant to limit all transfer trucks and solid waste vehicles that use the Project site and facilities to alternative fuel vehicles, could potentially further reduce significant impacts from NOx emissions from the Proposed Project. However, the use and/or purchase of all alternative fueled vehicles beyond what is required by Rule 1193 as part of this Proposed Project is infeasible due to the high cost of refuse collection vehicles and existing requirement that alternatively fueled vehicles replace existing vehicles to comply with the SCAQMD Rule 1193. The SCAQMD rule considers what is economically feasible for purposes of imposing Rule 1193 on solid waste operators. For example, Rule 1193 includes provisions for economic hardship of small private fleet operators that can allow two one-year extensions to acquire rule compliant vehicles. Also, the transfer trucks are still primarily diesel fueled because at this time there are no suppliers that can deliver feasible alternatives (alternative-fueled transfer trucks). Rule 1193 requires fleet operators to go through a procurement process for alternative-fueled transfer trucks, but bids generally are not responded to because alternative-fueled vehicles don't meet other bid specifications (Cole, 2014). The process is outlined in Rule 1193 (f)(3)(A). As alternative-fueled vehicles with appropriate specifications needed for transfer trucks become available, Rule 1193 requirements will assure that fleets will be add these vehicles for future replacements.

Additionally, requiring third party collection trucks that utilize the facility to be alternatively fueled beyond the requirements they have to comply with under Rule 1193 would foreseeably result in an increase in emissions. Rather than converting their trucks to alternative fuels, third parties would likely choose to travel to the next closest facility (which potentially will result in increased trip lengths and air emissions) that does not have this requirement rather than using the Proposed Project even if it is more convenient with a shorter travel distance. In this instance, emissions may increase due to a longer travel distance. Nevertheless, compliance with Rule 1193 will reduce emissions. If the third parties contract with governmental agencies in the future they would be subject to the requirements set forth in SCAQMD Rule 1193. Based upon the previous information, requiring more solid waste and transfer trucks to be alternative fuel than what is already required under the SCAQMD rules is not considered economically, socially or environmentally feasible.

See comments and Responses to Comments 19-16A through 19-19 for responses to the additional mitigation measures identified by the SCAQMD. The responses to these comments have added additional feasible mitigation measures identified for consideration by the SCAQMD comments, and all feasible mitigation measures are included now in the EIR.

Response 19-2: As required by CEQA, written responses to all SCAQMD comments will be provided to the SCAQMD staff at least ten days prior to the City Council meeting for consideration of certification of the Final EIR.

Response 19-3A:

As noted by the SCAQMD comment, the CARB Land Use Handbook is a general reference guide for evaluating new projects. The analysis for the Proposed Project included detailed modeling and did not rely upon a general reference guide. Within the Recirculated DEIR, the nearest sensitive receptor is located approximately 325 feet (100 meters) to the south of the project site boundary. However, the processing facility is approximately 500 feet (150 meters) from the nearest sensitive

receptor. As indicated on page 2.0-16 of the Recirculated DEIR, the sole access for all trucks to and from the site would be to and from Arrow Highway. Trucks would not enter the facility from Live Oak Avenue. This entrance/exit and route for trucks maintains a distance of at least 1,000 feet between the primary haul truck route entrance to the Project site and the nearest sensitive receptors. Notably, the health risk assessment found that health impacts from on-site equipment, haul trucks, and operation of the service station are less than significant with mitigation measures regardless of the fact that a 1,000 feet buffer is not present.

See response to Comment 19-5 regarding the 1,000-foot buffer optional requirement for odors in SCAQMD Rule 410.

In accordance with CEQA Guidelines §15126.4(a)(1)(D) there are no potential impacts from implementation of the air quality mitigation measures.

Response 19-3B: The comment notes that significant regional and localizes impacts were determined for operational activities, especially the result of projected 2,456 daily truck trips. The comment also notes that 68 percent of the waste collection trucks operated by the applicant are alternatively fueled, the remainder of waste collection trucks operated by the applicant and all other project-related trucks are assumed to be diesel fueled. All diesel-fueled trucks would be subject to Rule 1193.

Feasible mitigation measures to reduce operational ROG and NOx emissions are recommended in the Recirculated Draft EIR. See Response to Comment 19-1D.

Response 19-4: Compliance with all applicable provisions of Rules 1133 and 1403 are required by SCAQMD regulations, if applicable, but the Proposed Project would not include composting, chipping and grinding activities, or co-composting. Thus, Rules 1133 and 1403 are not applicable to the Proposed Project.

With regard to Rule 1403 (Asbestos Emissions from Demolition/Renovation Activities), see the bottom of page 3.8-26 in the Recirculated Draft EIR. As indicated on that page:

> "The MRF/TS will not accept construction or other debris containing asbestos, lead-based materials, or other contaminated material. Facility "spotters" are responsible to oversee the collection truck unloading process. These spotters are required to be trained, responsible for identifying, and removing any noticeable HHW found on the tipping floor. In addition, hazardous materials found during trash sorting and recovery would be spotted and removed by trained operational personnel. Any HHW found will be retrieved, identified, logged and labeled by supervisory personnel, and transported to a specially designed fire-rated, lockable, waterproof, and ventilated containment shed."

Response 19-5: Compliance with all applicable provisions of Rule 410 would be required by SCAQMD regulations and EIR Mitigation Measures.

With regard to the 1,000 foot buffer, the SCAQMD Rule 410 requires that either:

New or Modified Facilities shall (with the exception of C&D debris) conduct tipping, sorting and transfer operations within the confines of an enclosure that meets the requirements of Rule 410 (d)(1)(A) though (C),

or

Rule 410 (d)(2) demonstrate that the facility is located greater than 1,000 feet from any property zoned for residential or mixed land use, or designated as a site for a school or a school under construction, measured from the side of the odor generating source located nearest to the area zoned for residential or mixed land use or school to the closest property line of that receptor.

Because the Irwindale MRF would be located within 1,000 feet from any residential property, the Proposed Project will be designed to comply with the requirements found in Rule 410 (d)(1)(A) though (C), which includes, but not limited to, an enclosure with odor control systems for processing materials and an odor management plan. As such, the Proposed Project will be in full compliance with Rule 410.

THRESHOLD AQ-6 presents an analysis of the odor impacts relative to the project siting and MM AQ-19 through 21 (page 3.3-65 and 66).

In addition to the On-site Management Plans and the SCAQMD Rule 410 requirements, MM AQ-19 through MM AQ-21 (see pages 3.3-65 and 66 of the Recirculated Draft EIR) will be required to further assure that with mitigation there will be no significant odor impacts. The text in the Draft EIR was revised in the Recirculated Draft EIR on pages 3.3-65 and 3.3-66, adding additional discussion to clarify odor reduction measures as follows:

"MM AQ-19~~21~~

Applicant shall minimize odors during operation of the MRF/TS by properly maintaining design features and equipment designed to reduce and eliminate odors and pursuant to provisions of SCAQMD Rule 410.

MM AQ-20~~22~~

On-Site Management Plan No. 3, Athens Services Odor Control Program shall include a requirement that any and all odor complaints shall be referred directly to the City of Irwindale Community Development Department Code Enforcement Division. Odor complaints shall be substantiated by the City as follows:

d. Inspection and confirmation by Code Enforcement Division Staff; and/or

e. Inspection and confirmation by the SCAQMD; and/or

f. A qualified consultant, as determined and selected by the City, will be retained to collect samples to quantify odor intensity using a Nasal Ranger or other comparable instrument. Such consultant shall be retained by the City at the sole expense of the Applicant.

Facility representatives shall conduct an odor survey as soon as practical, but not to exceed 2 hours after receiving an odor complaint or notification from the SCAQMD or the LEA. Upon substantiation of an odor complaint, Applicant shall meet with the City within 48 hours to determine actions to remedy the odor complaint. A detailed action plan shall be prepared within 72 hours of the meeting identifying the steps to be taken to remedy the issue. All remedies shall be at the sole expense of the Applicant, and shall be implemented / installed as soon as feasible.

MM AQ-21~~23~~

As a means to address public concerns and complaints regarding odors, the Project Applicant shall publicly post the SCAQMD odor complaint phone number **[1-800-CUT-SMOG (1-800-288-**

7664)] and website address (http://www.aqmd.gov/complain/reporting_aq_problems.html) on signs that are visible from the street at all entrances to the MRF/TS facility."

As part of the Odor Control Plan, the following facility design will be incorporated into the Proposed Project (page 3.3-64 of the Recirculated DEIR), which will minimize odors and offset the impacts due to the proximity to the nearest residences:

The portions of the buildings that will handle, process, or store MSW and green waste will be enclosed to prevent the migration of odors. Ingress and egress points to this building, including the transfer tunnel for waste vehicles, will be equipped with fast acting roll-up doors to minimize the amount of time doors are open and minimize the potential for odors to escape the building. All MSW and green waste materials will be discharged, processed, and stored inside the building. This is consistent with SCAQMD Rule 410.

To further minimize uncontrolled odors from the enclosed MSW and green waste process/handling/storage areas of the building, roof-mounted ventilation fans will be operated to maintain a negative air pressure within the building. The fans will draw air into the building whenever the roll up doors open to allow vehicles to enter or exit the building. When no doors are open, air will be drawn in through wall mounted ventilation louvers.

To control odors within the building, high-pressure misting systems will be installed in the ceiling above areas where odorous materials are handled, and at all door openings. These systems emit an enzymatic odor neutralizing product mixed with tap water at high pressures that creates a very fine mist and effectively minimizes odors. Air exhausted through the roof-mounted ventilation fans will also be treated in the same manner with the installation of misting nozzles at the exhaust louvers and application of the odor neutralizing product to the exiting air stream. These facility design features are essentially the same features that have been successfully implemented at the Los Angeles County Sanitation Districts Puente Hills MRF.

The C&D processing area, including the tipping area, will be located within an enclosed building. Doorways for ingress and egress of waste delivery trucks will also be equipped with roll up doors. To minimize the potential for windblown litter emanating from within the building, the roll-up doors will be closed except when waste delivery vehicles are accessing the building or tipping their loads. All waste materials will be discharged, stored, and processed inside the building.

Response 19-6: Compliance with all applicable provisions of Rule 1403 are required by SCAQMD regulations. See Response to Comment 19-4.

Response 19-7: Compliance with all applicable provisions of Rules 461 and 1193 are required by SCAQMD regulations. Applicable SCAQMD regulations and rules are listed and documented within the Air Quality setting section. Compliance with the SCAQMD regulations and rules is required by law. However, identifying rules in mitigations measures provides valuable information to the public and decision makers about regulatory requirements and results in the rules being tracked in the CEQA Mitigation Monitoring and Reporting Program. Emissions resulting from compliance with SCAQMD regulations and rules are part of the Unmitigated Emissions (for example, vehicle idling restrictions of five minutes are part of Table 3.3-13 (Unmitigated) and 3.3-15 (Mitigated) on pages 3.3-41 and 3.3-45 of the Recirculated DEIR, respectively).

Response 19-8: The approach used in the RDEIR to evaluate these impacts does not underestimate the project's long-term impacts. The comment suggests there was some confusion regarding how the CalEEMod, EMFAC and OFFROAD emission models were used in the analyses for the

Proposed Project for which we offer the following clarification. The fleet mixture percentage in CalEEMod is consistent with the Project Description for those vehicles analyzed by CalEEMod. CalEEMod was only used to estimate emissions for some of the vehicles, other vehicle trips were analyzed using the EMFAC2001 model. The CalEEMod land use emissions model was used to develop the construction emissions and the operational emissions associated with the facility employee vehicles, convenience store/service station customers and deliveries, and area sources (but not for haul trucks). The Proposed Project includes 345 employee trips. An additional 751 daily trips would be associated with the convenience store/service station. For these sources CalEEMod default fleet mixture (i.e., a majority of vehicles are automobiles) and travel distance information was used. For facility employee vehicles, convenience store/service station customers and deliveries, the default fleet mix for heavy duty vehicles of five percent is representative of the Proposed Project.

However, emissions for collection, transfer, and self-haul trucks were developed external to CalEEMod by using emission factors within the EMFAC2011 emissions model as the air quality analysis required project-specific data in association with truck trips. Notably, the CalEEMod also uses EMFAC emission factors. The maximum daily number of truck trips would be 2,456 truck round trips (including collection trucks, transfer trucks and self-haul trucks). The daily trips include 249 self-haul trips, 1,137 packer truck trip, 66 end dump truck trips, 445 roll-off truck trips, and 559 transfer truck trips. Roll-off trucks, packer trucks, and end-dump trucks were modeled using the T7 Solid Waste Collection Vehicle classification, which is a worst-case heavy-heavy duty truck emission factor for solid waste collection vehicles. Self-haul trucks would have substantially smaller payload capacities and were modeled using light-heavy duty truck emission factors. Thus, the truck trips are representative of 100 percent of heavy duty trucks (for roll-off trucks, packer trucks, and end-dump trucks) and 100 percent of light-heavy duty trucks (for self-haul trucks) and their respective emission factors. Therefore, the emission estimates for truck trips would not represent an underestimation of air quality impacts (including health impacts) but are based on project-specific data.

Response 19-9: The approach used in the RDEIR to evaluate these impacts does not underestimate the project's long-term impacts. The comment suggests there is some confusion regarding how the CalEEMod and EMFAC emission models were used in the analyses for the Proposed Project, for which we offer the following clarification. The analyses do not underestimate the project impacts because the appropriate trip lengths are used for each trip type/vehicle. In response to this comment, the methodology was explained to the SCAQMD staff during the meeting on December 3, 2014. The CalEEMod default travel distance of 6.9 miles was used for the vehicles trips associated with facility employee vehicles, convenience store/service station customers and deliveries (but not for haul trucks). A project-specific travel distance was used for collection, transfer, and self-haul trucks, and emission calculations were performed external to CalEEMod using the EMFAC2011 emission model.

Under the Proposed Project, the truck trips are processed at the Irwindale Facility and then transported to the Mid-Valley Landfill (85 percent of trips) and San Timoteo Landfill (15 percent of trips); with a weighted average one-way travel distance of 38 miles. The recycling materials are sent to the Port of Los Angeles/Long Beach, an average of 34 miles travel distance. The composting materials are sent to Victorville (American Organics), an average of 73 miles travel distance. The waste is estimated to be 46 percent landfill material, 35 percent recycling material, and 19 percent composting material for the Proposed Project. The average one-way travel

distances (local trips) for the Proposed Project are estimated to be 9.1 and 8.4 miles for the collection/roll-off trucks and self-haul trucks. Background information for the travel distance calculations are included in the Recirculated Draft EIR on pages 3.3-35 through 3.3-39.

Thus, the emission estimates for truck trips would not represent an underestimation of air quality impacts (including health impacts) but are based on project-specific data. Operational emissions were estimated by combining the results of CalEEMod and EMFAC based on the tool which is most appropriate for the emission source analyzed.

Response 19-10: Considerable effort has been expended to allow for review of the air quality impacts in the Recirculated Draft EIR and the Lead Agency consultant met with the SCAQMD on December 3, 2014 to further explain methodologies and assumptions. Notably, all input/output data and calculation files used within the air quality analysis have been provided within the Air Quality section and Appendix C. No files have been excluded from the information provided with the Recirculated Draft EIR. The methodologies, assumptions, and supporting data for the emission calculations, HRA, and LST analysis are provided in considerable detail within Appendix C. Appendix C contains the AERMOD modeling input and output files, the supporting terrain data, meteorological data, the emission calculations for construction activities (CalEEMod), and combustion sources (with EMFAC2011 and OFFROAD2011), and the estimate of cancer risk and health impacts and LST analysis.

The Recirculated Draft EIR provides the actual calculations and results, rather than sample calculations. The methodologies and models used are summarized in the following paragraphs.

Operational combustion emission calculations were developed within spreadsheets (Appendix C) entitled Irwindale MRF OFFROAD 2011.xls (for OFFROAD2011), ER-2007Class-SouthCoast-Annual.xls (for EMFAC2011 for 2015 through 2035), emfac2011_idling_emission_rates.xls (for truck idling), Operational Emissions – Roadways.xls (for off-site trucks along roadways), and Service Station.xls (for ROG emissions from service station operations). Operational Emissions.xls and Operational Emissions – Mitigated.xls provide a summary of the operational emissions including information from CalEEMod, EMFAC2011, and OFFROAD2011 found in Tables 3.3-13 through 3.3-15 of the RDEIR. Combustion emission calculation methodology is addressed in Appendix C, pages 2 through 8.

AERMOD utilized unit emission rates (1 gram per second). The resultant exposure concentration by receptor was adjusted by the actual emission rate by emission source (i.e., onsite equipment, etc.). The actual exposure concentration by receptor was then compared to the ambient concentration thresholds and used to estimate the cancer risk (by accounting for exposure parameters for residences, school children, and offsite workers) and chronic/acute health impacts. The worst-case year of operation was used in the LST analysis and the health impacts. The 70-year average (i.e., lifetime exposure levels) emission rates were used in the cancer risk calculations. These 70-year average emission rates account for changes in combustion emissions rates as vehicles and equipment provide greater exhaust efficiency in future years. The HRA and LST methodology is addressed in Appendix C, pages 9 through 30.

Response 19-11: The comment addresses the question of operational hours for the Proposed Project and how these conditions were analyzed in the Air Quality section. Based on page 2.0-14 of the Recirculated Draft EIR, the MRF/TS is proposed to be open for waste receipt 24 hours per day, seven days per week with the majority of waste receipt typically occurring between the hours of 6:00 AM to 8:00 PM from Monday through Friday, 6:00 AM to 4:00 PM on Saturday, and from

8:00 AM to 4:00 PM on Sunday. Limited sorting operations and maintenance would primarily occur during off-peak hours when waste is not typically coming into the facility.

The air quality analysis and health risk assessment was conducted based on typical operating conditions as limited operations would occur during off-peak hours. The exception to this condition is that the service station operations were modeled to occur 24 hours per day, as this is a typical condition of these types of sources. Haul trucks are based on the maximum daily truck trips occurring during the hours noted previously; instead of spread out over the entire 24 hour period. This stipulation would be expected to result in the greatest hourly truck trips and resultant estimated ambient concentrations and health impacts. A condition where the daily truck trips are spread over the entire day and where this would occur during each day of the year is not representative of the expected operating conditions for the facility and is likely to result in lower impacts.

The HRA, specifically, and emission estimation and dispersion modeling, generally, are based on current knowledge, under a number of highly conservative assumptions and the best assessment tools currently available. The emission estimates are based on the daily throughput of 6,000 tons per day (very conservative). The emission factors are based on a level of margin to overestimate emissions from haul trucks and onsite equipment. The HRA exposure estimates do not take into account that people do not usually reside at the same location for 70 years and that other exposures (i.e., school children) are also of much shorter durations than was assumed in this analysis. The extrapolation of toxicity data in animals to humans, the estimation of concentration prediction methods within dispersion models; and the variability in lifestyles, fitness and other confounding factors of the human population also contribute to the overestimation of health impacts. Therefore, the results of the HRA are highly conservative (overstated).

Response 19-12: The comment notes that state regulations allow vehicles to idle for five minutes; but acknowledges that trucks may idle for five minutes periods at several times during activities at a facility (e.g., queueing to unload/load, at unloading/loading areas, and queuing prior to departure). The comment notes that the SCAQMD default total idling time while onsite is 15 minutes. However, if an idling time of less than 15 minutes is used, the measure should be included as a mitigation measure. **MM AQ-18** was modified in the Recirculated Draft EIR to include a mitigation measure to limit idling to five minutes per truck site visit, as follows:

> **MM AQ-18**
>
> All diesel truck operators shall strictly abide by the applicable State law requirements for idling, as described in the Airborne Toxic Control Measure (CCR, Title 13, Section 2485), which limits vehicles with gross vehicular weight ratings of more than 10,000 pounds to no more than five minutes of idling of the primary engine or the diesel-fueled auxiliary power system at any location. Trucks engaging in unloading at the Project site and load weighing/financial transactions at the scale house shall be prohibited from idling in excess of five minutes. Visible signage notifying truck operators of idling limits shall be posted near all site entrances.

According to Table 3.3-13 of the Recirculated DEIR, the truck idle emissions of NOx (based on an idle time of five minutes) are 19.4 pounds per day (or one percent of the estimate Proposed Project unmitigated emissions of NOx). Thus, idle emissions are a small portion of the overall total emissions associated with the project.

Response 19-13A: The HRA was conducted in accordance with technical guidelines developed by federal, state, and regional agencies, including US Environmental Protection Agency (USEPA), California Environmental Protection Agency (CalEPA), California Office of Environmental Health Hazard Assessment (OEHHA) *Air Toxics Hot Spots Program Guidance*[19] and the South Coast Air Quality Management District (SCAQMD) *Supplemental Guidelines for Preparing Risk Assessments for the Air Toxics "Hot Spots" Information and Assessment Act.*[20]

California Air Pollution Control Officers Association (CAPCOA) *Air Toxics "Hot Spots" Program Gasoline Service Station Industry-wide Risk Assessment Guidelines* notes that the inclusion of building downwash for service stations is not necessary. See page 17 of *Guidelines*. Thus, the health risk assessment analysis for the service station did not account for building downwash.

The SCAQMD permitting approval has to follow the CEQA approval, so final details of the permit are not known at this time. Building downwash effects point sources (not volume or area sources) such as boiler stacks and vent pipes only. The primary point sources associated with this Project are the breathing and working loss associated with ROG emissions from the storage tanks at the service station. The ROG emissions from the service station would be expected to contribute less than 5 percent of the incremental cancer risk due to the Project and building downwash would unlikely effect these results.

Response 19-13B: California Air Pollution Control Officers Association (CAPCOA) *Air Toxics "Hot Spots" Program Gasoline Service Station Industry-wide Risk Assessment Guidelines* notes emission release characteristics for point sources (loading and breathing emissions) and volume sources refueling and spillage). See page 12 of *Guidelines*. The health risk assessment analysis for the service station used this information for model assumptions.

Response 19-13C: Compliance with all applicable provisions of Rule 461 are required by SCAQMD regulations. Compliance is specifically included in Mitigation Measures AQ-12 and AQ-13 of the Recirculated Draft EIR (see page ES-32). Rule 461 is also identified as a relevant rule for the Proposed Project in the Air Quality Setting Section on page 3.3-13 of the Recirculated Draft EIR.

Response 19-14: The comment is incorrect in suggesting that HRA receptors were only placed to represent residential receptors. In fact, the HRA included residential, schools as well as off-site workers per guidance. Within Appendix C, Exhibit 4 presents the residential and school receptors and Exhibit 5 presents the off-site worker receptors (also the public access receptors for the LST analysis). The off-site worker receptors begin at the project boundary and were spaced within a fine grid of 25 meters by 25 meters and located up to 500 meters from the project boundary.

The HRA, including the type and location of sensitive receptors, was conducted in accordance with technical guidelines developed by federal, state, and regional agencies, including US

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[19] Office of Environmental Health Hazard Assessment, *Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessment,* August 2003, http://oehha.ca.gov/air/hot_spots/pdf/HRAguidefinal.pdf

[20] South Coast Air Quality Management District, *Supplemental Guidelines for Preparing Risk Assessments for the Air Toxics "Hot Spots" Information and Assessment Act*, June 2011, *http://www.aqmd.gov/docs/default-source/planning/risk-assessment/ab2588_guidelines.pdf?sfvrsn=0*

Environmental Protection Agency (USEPA), California Environmental Protection Agency (CalEPA), California Office of Environmental Health Hazard Assessment (OEHHA) *Air Toxics Hot Spots Program Guidance*[21] and the South Coast Air Quality Management District (SCAQMD) *Supplemental Guidelines for Preparing Risk Assessments for the Air Toxics "Hot Spots" Information and Assessment Act.*[22]

As included in the RDEIR (page 3.3-57 and 58), for the Proposed Project, the maximum unmitigated incremental cancer risks from operations would be 8.6 (residential adult receptor), 4.2 (residential child receptor), 2.8 (offsite worker), and 0.6 (school children receptor) cancers per million, which are below the SCAQMD significance threshold of 10 in one million. Notably, Mitigation Measures AQ-1 through AQ-18 would further reduce the cancer risks. The maximum mitigated incremental cancer risks from operations would be 7.4 (residential adult receptor), 3.6 (residential child receptor), 2.5 (offsite worker), and 0.5 (school children receptor) cancers per million.

Thus, the maximum exposure individual is located at a residence and lower impacts occur at off-site worker and school receptors.

Response 19-15: This response provides more detailed information as to how the source parameters and emission rates were calculated for each source. As noted in Appendix C of the Recirculated Draft EIR (page 24), facility trucks idling at the facility prior to entering the building enclosure were treated as an area source with a release height of 4.6 meters. The facility trucks along roadways were treated as line sources along the haul routes. These sources were modeled with a release height of 4.2 meters and a vertical dimension of 8.3 meters which accounts for the turbulence of vehicle movement. Sources associated with the service station are generally surface based emissions. Terrain elevations for emission source locations were used (i.e., complex terrain) based on available USGS information for the area.

Source parameters (release height, vertical dimension) for vehicles and trucks were based on the CARB's *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles. Appendix VII – Risk Characterization Scenarios* (dated October 2000). Emission rates for vehicles and trucks were based on CARB's EMFAC2011 emissions model and were contained within Appendix C. See Response to Comment 19-13B regarding model assumptions associated with the service station analysis.

Response 19-16A: The comment notes that the Proposed Project is significant for ROG and NOx emissions and that project emission estimates may be underestimated. However, as noted in Response to Comment 19-8 through 19-15, the emission estimates for truck trips would not represent an underestimation of air quality impacts (including health impacts) but are based on detailed project-specific data. Thus, further analysis is not necessary. The comment provides a list of additional mitigation measures to reduce emissions (See Response to Comment 19-16B).

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[21] Office of Environmental Health Hazard Assessment, *Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessment,* August 2003, http://oehha.ca.gov/air/hot_spots/pdf/HRAguidefinal.pdf

[22] South Coast Air Quality Management District, Supplemental Guidelines for Preparing Risk Assessments for the Air Toxics "Hot Spots" Information and Assessment Act, *June 2011, http://www.aqmd.gov/docs/default-source/planning/risk-assessment/ab2588_guidelines.pdf?sfvrsn=0*

Response 19-16B: The SCAQMD recommends a number of mitigation measures aimed at further reducing NOx emissions. This comment is also requesting that the City monitor the terms of project operations that are the basis of the project analyzed in the EIR. **MM AQ-16** has been modified to include the recommended mitigation measures:

MM AQ-16

~~Older (prior to 2010 model year) transfer trucks shall be equivalent to Tier 2 emission standards (such as particulate filter traps) prior to onsite use.~~

At project start, all heavy duty trucks entering the property must meet or exceed 2010 engine emission standards specified in California Code of Regulations Title 13, Article 4.5, Chapter 1, Section 2025.

As identified in the last paragraph on page ES-26 of the Recirculated Draft EIR, "The MMRP will provide a verification schedule for the mitigation measures and will be incorporated into the City's Conditions of Approval."

Pursuant the request of the SCAQMD, the City shall add the following items as part of the Conditions of Approval:

- Limit the daily number of trucks to 2,456 round trips (per Project Description); equated to 6,000 tons per day of waste materials. If higher daily truck volumes are anticipated to visit the site, the City shall assess the environmental impacts associated with the increase trips pursuant to the requirements of CEQA prior to allowing this higher activity level.
- The facility operator shall maintain a log of all trucks entering the facility to ensure that on average, the daily truck fleet meets the quantities and emission standards set forth within the EIR. This log shall be available for inspection by City staff at any time.
- The facility operator shall ensure that onsite staff in charge of keeping the daily log and monitoring for excess idling are trained/certified in diesel health effects and technologies [for example, by requiring attendance at CARB approved courses (such as the free, one-day Course #512)].
- The site shall be designed such that any check-in point (i.e., scale house) for trucks is well inside the facility to ensure that there are no trucks queuing outside of the facility.
- Have truck routes clearly marked with trailblazer signs so trucks will stay on truck routes established by the City and not inadvertently enter residential areas.
- The Project Operator shall develop, adopt and enforce truck routes both in and out of city, and in and out of facilities so as trucks will stay on the established truck route and not inadvertently enter residential areas or pass by nearby schools.
- All buildings and electrical infrastructure should be designed to accommodate potential future solar panel upgrades. Electrical panels shall be appropriately sized to allow for future expanded use to include EV charging stations.

In addition, the following mitigation measures shall be modified as follows:

MM AQ-1 of Recirculated Draft EIR is revised to add the additional mitigation measure as follows (new text is underlined and ~~strikethrough~~ is used for deleted text):

- "On-site stock piles shall be covered or watered at least twice per day.
- The Applicant shall use street sweepers (using reclaimed water if available) that comply with SCAQMD Rules 1186 and 1186.1"

Response 19-17: The comment recommends that, upon occupancy, trucks which are not 2007 or newer apply in good faith for funding to replace/retrofit engines to reduce NOx emissions. **MM AQ-18** was modified in the Recirculated Draft EIR (and further revised based on SCAQMD comments) to include funding program options to either retrofit or replace engines as follows (new text is underlined and ~~strikethrough~~ is used for deleted text):

"MM AQ-18

All diesel truck operators shall strictly abide by the applicable State law requirements for idling, as described in the Airborne Toxic Control Measure (CCR, Title 13, Section 2485), which limits vehicles with gross vehicular weight ratings of more than 10,000 pounds to no more than five minutes of idling of the primary engine or the diesel-fueled auxiliary power system at any location. Trucks engaging in unloading at the Project site and load weighing/financial transactions at the scale house shall be prohibited from idling in excess of five minutes. Visible signage notifying truck operators of idling limits shall be posted near all site entrances.

In the event third party collection haulers were required, all diesel truck operators that use the facility would be encouraged, and if reasonably possible by Athens to require contractually, to apply in good faith for funding from an established CARB or SCAQMD funding program to either retrofit or replace engines that are older than 2007 model year."

With regard to the feasibility of non-diesel haul trucks (THRESHOLD AQ-2) the discussion in the RDEIR on pages 3.3-46 and 47 was provided (See also Response to Comment 19-1D).

Response 19-18: The comment recommends that appropriate infrastructure facilitate sufficient electric charging for trucks to plug-in including onboard auxiliary equipment. The comment states, that at a minimum, electrical panels shall be appropriately sized to allow for future expanded use to include EV charging stations.

Notably, the Project will be required to be LEED certifiable and built to the Green Building Code standard; whereas, the Proposed Project shall be conditioned by the City to be certifiable at the Silver level utilizing U.S. Green Building Council's LEED green building rating systems. The Proposed Project includes a CNG fueling facility to provide alternative fueling operations for the project-related truck operations. Lastly, all buildings and electrical infrastructure should be designed to accommodate potential future solar panel upgrades. Electrical panels shall be appropriately sized to allow for future expanded use to include EV charging stations (See Response to Comment 19-16B and additional measures including provisions for electrical panels.

Response 19-19: The Proposed Project includes a CNG fueling facility to provide alternative fueling operations for the project-related truck operations. If that fueling facility is not immediately available, there is also an electric charging station at 6090 North Irwindale Avenue in Irwindale and approximately a dozen electric charging stations within ten miles of the Proposed Project. There are 190 electric charging stations within 25 miles of Irwindale. There is a CNG station at 950 North Todd Avenue in Azusa and three CNG stations within ten miles of the

Proposed Project. There are 627 different public alternative fuel stations within 25 miles of Irwindale (such as CNG, E85 Ethanol, Biodiesel, Propane, LNG, or electric charging stations).[23]

[23] Alternative Fuel Prices, http://www.altfuelprices.com/station_map.php

Comment Letter 20

Valley County Water District
14521 Ramona Boulevard
Baldwin Park, CA 91706

(626) 338-7301
(626) 814-2973 Fax

August 29, 2014

Mr. John Davidson, City Manager
City of Irwindale
5050 N Irwindale Avenue
Irwindale, Ca 91706

RE: City of Irwindale 1.9 Acre Parcel on the Corner of Live Oak Avenue and Arrow Highway in the City of Irwindale

Mr. Davidson,

As you are aware, over the past several years Valley County Water District has undertaken extensive planning efforts in pursuit of developing and constructing two-3 million gallon water storage reservoirs as part of its capital improvement program. Preliminary planning efforts included the feasibility of placing these conceptual reservoirs on a 1.9 acre parcel owned by the City of Irwindale at the corner of Live Oak Avenue and Arrow Highway. Discussions and preliminary negotiations between Valley County Water District and the City of Irwindale regarding the potential purchase of the 1.9 acre parcel were not favorable. These unsuccessful negotiations led Valley County Water District to pursue other options and alternatives for acquiring the necessary land to carry out the anticipated capital improvement project. 1

In June 2014, Valley County Water District purchased the land necessary to continue its planning efforts for completion of the reservoir capital improvement project. The current capital improvement planning efforts of Valley County Water District do not assume that the 1.9 acre parcel on the corner of Live Oak Avenue and Arrow Highway will be needed, and therefore Valley County Water District will not continue to pursue its acquisition.

On behalf of the Board of Directors and Valley County Water District, we wish you luck in your future development efforts for the site located at the corner of Live Oak Avenue and Arrow Highway. If you have any questions regarding this information, please contact me at your convenience at (626) 338-7301 ext. 201.

Sincerely,

Lynda Noriega
General Manager
VALLEY COUNTY WATER DISTRICT

Response to Comment Letter 20

Response 20-1: The VCWD has withdrawn its proposal to purchase 1.9 acres of the project site. Therefore, the project variant discussed in the DEIR and Recirculated DEIR is no longer under consideration.

The City appreciates the Valley County Water District's participation in the public review process.

President
Lenet Pacheco

Vice President
Margarita Vargas

Directors
Alfonso "Al" Contreras
Paul C. Hernandez
Mariana Lake

VALLEY COUNTY WATER DISTRICT

General Manager
Lynda Noriega

District Counsel
Lemieux & O'Neill

www.vcwd.org

14521 Ramona Boulevard • Baldwin Park, CA 91706
Office: (626) 338-7301 • Fax (626) 814-2973

September 8, 2014

Comment Letter 21

Ms. Paula Kelly, Senior Planner
City of Irwindale
5050 N Irwindale Avenue
Irwindale, Ca 91706

Re: Comments to the City of Irwindale Recirculated Draft Environmental Impact Report for the Proposed Irwindale Materials Recovery Facility and Transfer Station (State Clearinghouse Number 2013051029)

Ms. Kelly,

On behalf of the Board of Directors, the residents, and the communities we serve, Valley County Water District is please to have the opportunity to review the Recirculated Draft Environmental Impact Report (RDEIR) for the proposed City of Irwindale Materials Recovery Facility and Transfer Station (MRF/TS). Valley County Water District issued comments to the City of Irwindale regarding the April 2014 Draft Environmental Impact Report (DEIR) for the proposed MRF/TS on May 13, 2014. The intent of the letter issued to the City of Irwindale was to highlight concerns by Valley County Water District over the construction and long-term operations of the new MRF/TS project in close proximity to the Valley County Water District Clinton O. Nixon Pumping Facilities and Water Treatment Facilities. After a review of the pertinent sections of the RDEIR, Valley County Water District still has the same concerns and comments as listed and submitted on the May 13, 2014 letter. Please provide official responses to these concerns and comments in the Final Response to Comments as the Environmental Impact Report is completed and finalized. 1

If you have questions regarding our initial comments, or if you need any additional information, please contact me at your convenience at (626) 338-7301 x201.

Sincerely,

Lynda Noriega
General Manager
VALLEY COUNTY WATER DISTRICT

CC: Lenet Pacheco, President of the Board of Directors, Valley County Water District
Margarita Vargas, Vice President of the Board of Directors, Valley County Water District
Alfonso "Al" Contreras, Member of the Board of Directors, Valley County Water District
Paul C. Hernandez, Member of the Board of Directors, Valley County Water District
Mariana Lake, Member of the Board of Directors, Valley County Water District

Response to Comment Letter 21

Response 21-1: The VCWD states that its previous comments on the DEIR submitted on May 13, 2014 are still valid (referred to herein as EIR Comment Letter 9). Please refer to Responses to Comments 9-1 through 9-8 above.

The City appreciates the Valley County Water District's participation in the public review process.

LOS ANGELES COUNTY
SOLID WASTE MANAGEMENT COMMITTEE/
INTEGRATED WASTE MANAGEMENT TASK FORCE
900 SOUTH FREMONT AVENUE, ALHAMBRA, CALIFORNIA 91803-1331
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GAIL FARBER, CHAIR
MARGARET CLARK, VICE-CHAIR

Comment Letter 22

September 15, 2014

Ms. Paula Kelly, Senior Planner
City of Irwindale
5050 North Irwindale Avenue
Irwindale, CA 91706

Dear Ms. Kelly:

REVISED DRAFT ENVIRONMENTAL IMPACT REPORT
PROPOSED IRWINDALE MATERIALS RECOVERY FACILITY AND TRANSFER STATION PROJECT- STATE CLEARINGHOUSE NO. 2013051029

The Los Angeles County Solid Waste Management Committee/Integrated Waste Management Task Force (Task Force) appreciates the opportunity to comment on the Revised Draft Environmental Impact Report (RDEIR) for the proposed Irwindale Materials Recovery Facility and Transfer Station (MRF/TS), which was released for public comment and review on August 8, 2014. Based on our review of the RDEIR, we have the following comments:

- The Task Force previously reviewed and submitted comments on the proposed project Draft Environmental Impact Report (DEIR) on May 14, 2014, (copy enclosed). Unfortunately, the RDEIR did not recognize the Task Force's letter. As such, our comments as stated in the said letter have not been recognized nor have they been addressed in the RDEIR. The final RDEIR needs to recognize the Task Force's letter of May 14, 2014, address each comment and provide effective mitigating measures, as necessary. 1

- Section 2.3 of the RDEIR states that a fueling facility/convenience store that will be selling alcoholic beverages will be located at the project site. For purposes of ensuring public health and safety consideration should be given towards whether or not such a store is suitable to be co-located with a solid waste handling facility and a site where substantial truck traffic and maneuvering is anticipated. 2

- Section 2.5 of the RDEIR includes a project objective that was not included in the previous DEIR that was circulated for public review on April 2, 2014. It states that one of project objectives is to "maximize the ability to receive, process, and consolidate, for efficient transfer and disposal, municipal solid waste within the San Gabriel Valley; thereby, reducing regional vehicle miles traveled by trash 3

collection trucks to the maximum extent feasible." In our comment letter on May 14, 2014, on the DEIR, we had pointed out that there are five existing materials recovery and/or recycling facilities located within the area of the proposed project site generally bordered by the San Gabriel River (605) Freeway to the west, Foothill Boulevard to the north, Azusa Avenue to the east, and the Pomona (60) Freeway to the south, with a combined total Solid Waste Facility permitted capacity of nearly 18,500 tons per day. Namely, the five facilities are: Athens Services (in the County unincorporated area of Avocado Heights), Allan Company (City of Baldwin Park), Waste Management (City of Azusa), Grand Central Station (City of Industry), and the Puente Hills Materials Recovery Facility (County unincorporated area of North Whittier). The proposed project together with the five existing facilities in the area will increase the combined total capacity to 24,500 tons per day. Considering this capacity exceeds the total amount of solid waste that is generated in the San Gabriel Valley, environmental justice issues would need to be addressed especially since existing single-family homes are located as close as 425 feet from the proposed project site. 3 con't

Additionally, based on the said 24,000 tons per day of solid waste processing/transfer station capacity, it is likely that the majority of solid waste to be handled at the proposed facility would originate from sources outside of the San Gabriel Valley. Considering the existing air quality and transportation, the RDEIR must consider the project impacts on the health and safety of residents in the San Gabriel Valley and provide appropriate mitigating measures.

- Chapter 3.4 of the RDEIR states that a general biological survey of the site was conducted on October 26, 2009. This biological survey does not accurately represent conditions in the San Gabriel Valley throughout the year. Accordingly, it is recommended that additional biological surveys be conducted. It is also recommended that a portion of the project area be dedicated to native vegetation and sustainable plants that do not require large amounts of water. 4

- The Executive Summary states that the South Coast Air Quality Management District would like the project to consider 100% of the vehicle trips to be considered "new trips." If the regional air quality analysis now assumes that 100% of the truck trips are new instead of 50% then the distances traveled by the truck trips should be factored into the air quality analysis, considering both the truck traffic traveling through the County to the facility as well as those traveling from the facility to other destinations. It is also recommended that the greenhouse gas analysis be updated to reflect the increase in emissions due to the increase in the amount of new trips. Furthermore, it is recommended that the greenhouse gas section include a comprehensive analysis of the impact of the proposed facility on the global warming footprint. 5

If you have any questions, please contact Mr. Mike Mohajer of the Task Force at MikeMohajer@yahoo.com or (909) 592-1147.

Sincerely,

Margaret Clark

Margaret Clark, Vice Chair
Los Angeles County Solid Waste Management Committee/
Integrated Waste Management Task Force and
Mayor Pro Tem, City of Rosemead

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Enc.

cc: California Department of Resource Recycling and Recovery
Los Angeles County Department of Public Health, LEA (Gerardo Villalobos)
Each Member of the Task Force and the Facility & Plan Review Subcommittee

LOS ANGELES COUNTY
SOLID WASTE MANAGEMENT COMMITTEE/
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GAIL FARBER, CHAIR
MARGARET CLARK, VICE-CHAIR

May 14, 2014

The comments in this letter are addressed in the Draft EIR Responses to Comments.

Ms. Paula Kelly, Senior Planner
City of Irwindale
5050 North Irwindale Ave
Irwindale, CA 91706

Dear Ms. Kelly:

DRAFT ENVIRONMENTAL IMPACT REPORT
PROPOSED IRWINDALE MATERIALS RECOVERY FACILITY AND TRANSFER STATION PROJECT- STATE CLEARINGHOUSE NO. 2013051029

Please note this correspondence supersedes the previously sent correspondence dated May 9, 2014.

The Los Angeles County Solid Waste Management Committee/Integrated Waste Management Task Force (Task Force) appreciates the opportunity to comment on the Draft Environmental Impact Report (DEIR) for the proposed Irwindale Materials Recovery Facility and Transfer Station (MRF/TS), which was released for public comment and review on April 2, 2014. Based on our review of the DEIR, we have the following comments:

- Section 3.6 of the DEIR (page 3.6-10) states "the Proposed Project will not have any disproportionate effects on any disadvantaged population within the Los Angeles region or among local communities, and does not raise environmental justice issues beyond those attributable to the region as a whole." There are five existing materials recovery and/or recycling facilities located within the area generally bordered by the San Gabriel River (605) Freeway on the west, Foothill Boulevard on the north, Azusa Avenue on the east, and the Pomona (60) Freeway to the south of the proposed project site with a combined total Solid Waste Facility permitted capacity of nearly 18,500 tons per day (tpd). Namely, the five facilities are: Athens Services (in the County unincorporated area of Avocado Heights), Allan Company (City of Baldwin Park), Waste Management (City of Azusa), Grand Central Station (City of Industry), and the Puente Hills Materials Recovery Facility (County unincorporated area of North Whittier). The proposed project together with the five existing facilities in the area will increase the combined total capacity to 24,500 tpd. Considering this capacity exceeds the amount of waste that is generated in the San Gabriel Valley environmental justice issues would need to be addressed especially since single-family homes are located as close as 425 feet from the proposed project site. The DEIR states

the City is sensitive to the environmental effects of projects on the local community. This statement needs to be substantiated in regards to environmental justice.

- It is recommended that the DEIR also analyze potentially siting a permanent household hazardous waste collection center and a conversion technology facility to supplement efforts to manage waste locally, safely, and sustainably.

- Section 2.2 – Project Features, states "the Proposed Project would create a regional asset needed to address and implement a series of legislative measures over the years designed to both promote and mandate the time-certain reduction, recycling, and reuse of solid waste in California; including, but not limited to: Assembly Bill 341 (Chapter 476, Statutes of 2011); Senate Bill 1016 (Chapter 343, Statutes of 2007); and Assembly Bill 939 (Chapter 1095, Statutes of 1989)." The DEIR goes on to state "the Proposed Project, designed to enable and facilitate the separation of recyclables from solid waste, would directly assist the City, surrounding communities, and County to comply with AB 939." Since the San Gabriel Valley including the City of Irwindale already has adequate capacity to manage the solid waste generated within the area, any statements alluding to the proposed facility having any direct bearing upon the City's compliance with AB 939 should be clarified in order to be technically accurate.

- Although Chapter 3.3 discusses mitigation measures to control odors at the property, including having a fully enclosed facility with a negative pressure system, exhaust fans to facilitate multiple air exchanges, and misting systems with odor neutralizers, none of the mitigation measures discuss any odor impacts from the vehicles delivering material to the facility. This potential odor impact, particularly on the nearby community, needs to be fully analyzed and discussed.

If you have any questions, please contact Mr. Mike Mohajer of the Task Force at MikeMohajer@yahoo.com or (909) 592-1147.

Sincerely,

Margaret Clark

Margaret Clark, Vice-Chair
Los Angeles County Solid Waste Management Committee/
Integrated Waste Management Task Force and
Council Member, City of Rosemead

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cc: California Department of Resource Recycling and Recovery
Los Angeles County Department of Public Health, LEA (Gerardo Villalobos)
Each Member of the Task Force and the Facility & Plan Review Subcommittee

Response to Comment Letter 22

Response 22-1: The previous comment letter on the DEIR submitted on May 14, 2014 is included as Comment Letter 8 above, and it was taken taken into consideration in development of the Recirculated DEIR. Refer to Response to Comment 8-1 above.

Response 22-2: The Conditional Use Permit provisions related to alcohol sales are discussed on page 3.2-28 of the Recirculated Draft EIR as follows:

"Section 17.58.060(e) - Conditional use permit – Factors regarding public convenience or necessity. In deciding whether to issue the conditional use permit, the planning commission shall consider whether the public convenience or necessity would be served by the proposed alcoholic beverage [sales] establishment and make findings to justify such conclusion based upon review and consideration of relevant factors such as the aesthetic character and ambiance of the proposed establishment."

Response 22-3: Environmental Justice is addressed in Chapter 3.6 of the Recirculated Draft EIR. Please see Response to Comment 5-1, and Response to comment 8.1. It is speculative and unreasonable for the commenter to assume that "the majority of solid waste to be handled at the proposed facility would originate from sources outside of the San Gabriel Valley." The air quality analysis estimated air emissions from the proposed maximum capacity of 6,000 tons per day as a worst-case scenario and identified significant, unavoidable impacts from vehicle operation emissions. The Recirculated Draft EIR identified mitigation measures MM-12 through MM-18 to reduce operational emissions from the Proposed Project.

Response 22-4: The purpose of the biological assessment is to determine the habitat quality of the proposed project site, and the presence or likelihood of potential use of the site by any protected or special-status species. The property is a brownfield site that was previously occupied by a heavy industrial use for decades, is crossed by a regional transmission line, and is surrounded by industrial and commercial land uses and the Santa Fe Dam. Mitigation Measure BIO-1 requires a pre-construction survey to ensure protection of nesting birds. See also Response to Comment 11-37.

Response 22-5: The City believes it has prepared an analysis which is extremely conservative (overestimation of air quality impacts) using the best available information (e.g., number of truck trips, truck trip distances, etc.). The following provides information from Section 3.3 of the RDEIR pertaining to the baseline condition, truck trip mileage, and GHG emissions.

To assess air quality impacts from off-site vehicle emissions that will foreseeably result from the Project, the Draft EIR published in April 2014 assumed a baseline condition that took into consideration these existing relocated emissions. However, to be extremely conservative and to avoid under-representing any potential air quality impacts from the Proposed Project, the City has analyzed all the trips to be new trips in the RDEIR and the Final EIR. Thus, 100 percent of the haul trips were considered to be "new trips".

Regardless, in all likelihood, all the trips to the Irwindale MRF would not be new trips, because the operation of the new MRF/TS would not create new waste to be processed. As seen in **Table 3.3-12** of the Recirculated Draft EIR (page 3.3-37), the trip lengths to the Irwindale MRF/TS would

be less than the trip lengths to some competing MRFs but would be more than the trip lengths to other competing MRFs. However, because the Proposed Project does not include reducing waste volumes going to other MFR/TS or reducing the permits at other MRF/TS locations, the most conservative analysis is to assume all the trips to the Irwindale MRF/TS would be new trips.

The Recirculated Draft EIR and the Final EIR analysis assumes that 68 percent of existing solid waste collection trucks (both owned by the Project Applicant and third parties) are compressed natural gas (CNG) fueled and the remaining 32 percent are diesel-fueled. It is assumed that outbound transfer trucks would be diesel fueled. Compared to diesel trucks, NO_X emissions are reduced by approximately 25 percent, and PM_{10} and $PM_{2.5}$ emissions by 15 percent for CNG trucks.

The Recirculated Draft EIR updates the greenhouse gas emissions and mitigation measures for greenhouse gas emissions. Please see revisions to MM AQ-22 on page 3.3-68 of the Recirculated Draft EIR.

Table 3.3-11 Regional Efficiency – Distance from Markets to Regional Transfer Stations (miles)

Market	Waste (tons)	Miles to Grand Central TS	Miles to Athens Services MRF	Miles to Irwindale MRF/TS
Irwindale	71,382	9.7	8.1	2.2
Azusa	100,414	9.6	11.9	6.7
Baldwin Park	126,118	8.9	4.1	2.0
Covina	100,054	7.5	8.0	5.9
Arcadia	111,556	18.1	13.4	7.8
Duarte	45,980	17.2	9.4	4.1
Bradbury	7,466	17.3	9.5	4.5
Sierra Madre	22,641	22.0	14.2	9.3
Monrovia	79,025	18.5	10.8	5.8
San Gabriel	88,404	14.8	10.5	8.6
Temple City	48,030	14.8	8.4	5.4
Pasadena	424,267	27.0	19.2	13.9
La Canada Flintridge	40,112	32.3	24.6	19.6
San Dimas	28,460	14.7	13.8	12.5
La Verna	68,598	14.8	15.6	13.9
Weighted Average		**18.1**	**13.4**	**9.1**

SOURCE: Proposed Irwindale MRF – Regional Efficiency Study, May 28, 2009 and KB Environmental Sciences, Inc., 2013.

As shown in **Table 3.3-12,** the distance traveled from Athens regional transfer stations and the distance traveled for the Proposed Project to the landfills, recycling, and composting facilities are similar. Regardless, all trips to the landfills from the Proposed Project are considered new trips for calculating the air emissions.

Table 3.3-12 Regional Efficiency – Distance from Regional Transfer Stations to Landfill, Recycling, and Composting (miles)

Location	Miles to Mid-Valley	Miles to San Timoteo	Miles to Port of Los Angeles	Miles to Victorville
Grand Central TS	38.9	48.1	36.5	69.1
Athens Services MRF	40.1	49.2	32.9	71.8
Irwindale MRF/TS	35.0	53.0	34.0	73.0
SOURCE: Athens Services, 2013 and KB Environmental Sciences, Inc., 2013.				

Under the Proposed Project, the truck trips are processed at the Irwindale Facility and then transported to the Mid-Valley Landfill (85 percent of trips) and San Timoteo Landfill (15 percent of trips); with a weighted average one-way travel distance of 38 miles. The recycling materials are sent to the Port of Los Angeles/Long Beach, an average of 34 miles travel distance. The composting materials are sent to Victorville (American Organics), an average of 73 miles travel distance. The waste is estimated to be 46 percent landfill material, 35 percent recycling material, and 19 percent composting material for the Proposed Project. The average travel distances for the Proposed Project are estimated to be 9.1, 8.4, and 16.6-miles for the collection/roll-off trucks, self-haul trucks, and employees, respectively.

These mileages are based on the best available information (Proposed Irwindale MRF – Regional Efficiency Study, May 28, 2009 and other feedback from the Applicant and CaLEEMod) to define the distance to markets and distance to regional transfer stations.

As documented in the Recirculated Draft EIR (page 3.3-68), the Proposed Project construction plus operational GHG emissions would be approximately 58,834 metric tons of CO_2e per year. The Proposed Project would be classified as potentially significant (greater than 10,000 metric tons of CO_2e per year SCAQMD significance threshold). The construction emissions would be approximately 940 metric tons CO_2e (or 31 metric tons CO_2e amortized over 30 years).

The representation of the truck trips as all new trips results in a very conservatively high estimate of emissions. That is, estimated maximum throughput for the Baseline Condition is 4,360 tons per day (based on market share, waste amounts, and trip distances) but conservatively evaluated at 0 tons per day. Therefore, it is not expected that the Proposed Project will, in fact, result in 58,803 metric tons of CO_2e per year. Nevertheless, the City will be requiring the applicant to purchase carbon offset credits to reduce the expected GHG emissions to less than significant level, but will allow the applicant an opportunity to demonstrate that the Proposed Project produces less GHG emissions than estimated by the conservative analysis provided.

Operational GHG emissions occur as a result of truck trips, truck idling, onsite equipment, employee trips, and supporting operations. The following table shows the distribution of GHG emissions per project element.

Project Element	CO2e
Truck Idle	352
Collection Trucks (Local)	20,740
Transfer Trucks to Landfill	13,356
Transfer Trucks to Recycling	9,165
Transfer Trucks to Composting	10,682
Self-Haul Trucks	946
Employee Vehicles	1,501
On-site Equipment	154
Convenience Store	1,653
Area Sources	256
Total Proposed Project[24]	**58,803**

Lastly, MM AQ-22 (page 3.3-68 of the Recirculated Draft EIR) provides for mitigation of GHG emissions to less than significant:

MM AQ-22:

The Project Applicant shall purchase verifiable and certified GHG offset credits and provide verification to the City of the purchase annually. Off-set credits shall be purchased in an amount that is based on one of the following:

(1) Offset-credits for 48,803 metric tons or,

(2) Offset-credits in an amount computed on the basis of the Project's actual GHG emissions the previous year ~~compared to actual Project-related emissions~~ compared to emissions from the 2013 baseline condition minus 10,000 metric tons of CO_2e per year. The calculation must be prepared and certified by a professional Air Pollution expert, acceptable to the City as determined by the Director of Community Development.

When feasible, offset purchases would be prioritized by proximity to the Project Site, with greatest preference given to projects within the jurisdictional boundaries of the SCAQMD, then California, and then finally nationally. Carbon offsets are widely available in a number of markets (e.g., GreenX and IntercontinentalExchange) and exists at levels that greatly exceed the potential needs of the Proposed Project.

The City appreciates the Task Force's participation in the public review process.

COUNTY OF LOS ANGELES
Public Health

CYNTHIA A. HARDING, M.P.H.
Interim Director

JEFFREY D. GUNZENHAUSER, M.D., M.P.H.
Interim Health Officer

ANGELO J. BELLOMO, REHS
Director of Environmental Health

TERRI S. WILLIAMS, REHS
Assistant Director of Environmental Health

JACQUELINE TAYLOR, MPA, REHS
Director, Bureau of Environmental Protection

Solid Waste Management Program
Gerardo Villalobos, REHS
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Comment Letter 23

September 19, 2014

Ms. Paula Kelly, Senior Planner
City of Irwindale Planning Department
5050 Irwindale Ave.
Irwindale, CA 91706

Dear Ms. Kelly:

REVISED DRAFT ENVIRONMENTAL IMPACT REPORT (RDEIR) FOR A PROPOSED MATERIAL RECOVERY FACILITY AND TRANSFER STATION IN THE CITY OF IRWINDALE / SCH#2013051029

The Los Angeles County Department of Public Health, Solid Waste Management Program, acting as the Local Enforcement Agency (LEA), appreciates the recognition and inclusion of previously submitted comments into the RDEIR for Irwindale Material Recovery Facility and Transfer Station (MRF/TS). Based on our review of the RDEIR, the LEA has no additional comments. 1

Please provide copies of any subsequent and/or related environmental documents, Notices of Determination, etc., for the proposed project. In addition, the LEA requests notification of any public hearings pertaining to the project at least ten days in advance. Documents/notices may be mailed to the Solid Waste Management Program address shown above, or emailed to me at dlugo@ph.lacounty.gov. In addition, a Solid Waste Facility Permit (SWFP) issued by the LEA and concurred with by The State of California Department of Resources Recycling and Recovery (CalRecycle) must be obtained for the proposed new operation.

Should you have any questions regarding the comments or information contained in this letter, please feel free to contact me at (626) 430-5540.

Sincerely,

Dorcas (Dee) Hanson-Lugo
Environmental Health Specialist III
LA County Public Health – Environmental Health
Solid Waste Management Program – Permitting Unit
5050 Commerce Drive
Baldwin Park, CA 91706

cc: Jeff Hackett, CalRecycle (electronic copy)

Response to Comment Letter 23

Response 23-1: The City acknowledges that the commenter is the Local Enforcement Agency (LEA) for the proposed MRF. As requested, the City will continue to provide the Department with notices and environmental documents pertaining to the project. The City recognizes that Athens Services, applicant/operator of the proposed MRF, will be required to obtain a Solid Waste Facility Permit to be issued from the LEA and concurred with by CalRecycle.

The City appreciates the Department's participation in the public review process.

September 22, 2014

Comment Letter 24

Ms. Paula Kelly, Senior Planner
City of Irwindale
Community Development Department
5050 North Irwindale Avenue
Irwindale, CA 91706

Subject: **Comments on Irwindale Materials Recovery Facility and Transfer Station Project Recirculated Draft EIR**

Dear Ms. Kelly:

The City of Azusa is in receipt of the Irwindale Materials Recovery Facility and Transfer Station Project Recirculated Draft EIR, dated July 2014, and has reviewed the Recirculated Draft. The City of Azusa's comments on the Recirculated Draft EIR are provided below.

1

Improper CEQA Noticing

The City of Irwindale has not complied with CEQA Guidelines Section 15087(c), Public Review of Draft EIR, and specifically the requirements for the Notice of Availability. The requirements under Section 15087(c) are stated below.

> *(c)*
> *The notice shall disclose the following:*
> *(1) A brief description of the proposed project and its location.*
> *(2) The starting and ending dates for the review period during which the lead agency will receive comments. If the review period is shortened, the notice shall disclose that fact.*
> *(3) The date, time, and place of any scheduled public meetings or hearings to be held by the lead agency on the proposed project when known to the lead agency at the time of notice.*
> *(4) A list of the significant environmental effects anticipated as a result of the project, to the extent which such effects are known to the lead agency at the time of the notice.*
> *(5) The address where copies of the EIR and all documents referenced in the EIR will be available for public review. This location shall be readily accessible to the public during the lead agency's normal working hours.*
> *(6) The presence of the site on any of the lists of sites enumerated under Section 65962.5 of the Government Code including, but not limited to, lists of hazardous waste facilities, land designated as hazardous waste property, hazardous waste disposal sites and others, and the information in the Hazardous Waste and Substances Statement required under subdivision (f) of that Section.*

The City of Azusa received a letter dated August 8, 2014 with the following text:

> *"RE: One disk containing the City of Irwindale MFT/TS Recirculated Draft Environmental Impact Report (EIR) and Notice of Availability"*

1 con't

Since no time frame for the comment period was included in the letter, the City of Azusa contacted the City of Irwindale and the due date of September 25, 2014 was provided.

The City of Irwindale failed to comply with all the requirements stipulated under CEQA Guidelines Section 15087(c), and therefore, must prepare a Notice of Availability that complies with CEQA Guidelines Section 15087(c), including a new 45-day review period. The CEQA-compliant Notice of Availability must be sent to all neighboring cities, affected State, regional, and local agencies, and other interested parties to afford them the adequate time and opportunity to review and comment on the Recirculated Draft EIR.

Traffic and Circulation

The Athens-Irwindale Materials Recovery Facility and Transfer Station Traffic Impact Analysis, prepared by Urban Crossroads, Revised February 27, 2014 is summarized in Section 3.12 and contained in its entirety in Appendix G of the Recirculated Draft EIR.

2

Truck Trips

A key assumption in the Traffic Impact Analysis is that **transfer trucks** would solely take access from Arrow Highway and directed towards Interstate 605 (I-605), as stated on page 3.12-26 of the Recirculated Draft EIR: *"Sole access for transfer trucks to and from the site would be from Arrow Highway, and directed towards Interstate 605 for regional transport, utilizing only City of Irwindale roadways."*

First, there is a discrepancy between the statement about transfer trucks on page 3.12-26 (restated above) and page 2.0-16 in the Recirculated Draft EIR: *"Sole access for ~~transfer~~ trucks to and from the site would be to and from Arrow Highway, and directed towards Interstate 605 for regional transport, utilizing Irwindale roadways."* The Recirculated Draft EIR should be revised to ensure consistency between Section 2.0, Project Description; Section 3.12, Traffic Generation and Circulation, and Appendix G, Traffic Impact Analysis.

Second, the above statement on page 3.12-26 references only transfer trucks, but does not address the multitude of truck trips that would be generated by the proposed project, including self-haul trucks, packer trucks, end dump trucks, and roll-off trucks. The Traffic Impact Analysis and the associated EIR section need to clarify whether these types of truck trips will also take sole access from Arrow Highway and I-605 or they will be taking access off I-210/Irwindale Boulevard ramps. If the latter is identified, the Traffic Impact Analysis will need to be revised to include the I-210/Irwindale Boulevard ramps, along with key intersections along Irwindale Boulevard including West 1st Street, Gladstone Street, and Arrow Highway. Therefore, at this time the City of Azusa cannot fully determine whether or not the proposed project will have any significant impacts on intersections within our boundaries.

3

Other Project-Related Trips

The Traffic Impact Analysis and Recirculated Draft EIR Section 3.12 are silent to the fact that employees and visitors, along with and other components of the proposed project, such as the convenience store/fueling station, will have options to both I-605 and Interstate 210 (I-210) at I-605/Live Oak Ramps and I-210/Irwindale Boulevard ramps to travel to and from the project site. No analysis has been provided to show the number of trips associated with these components at the I-210/Irwindale Boulevard ramps and the intersections of Irwindale Boulevard/West 1st Street, Irwindale Boulevard/Gladstone Street, or Irwindale Boulevard/Arrow Highway. 4

Cumulative Traffic Impacts

The cumulative analysis in the Traffic Impact Analysis assumes a large number of trips on the regional network, based upon input from the cities of Irwindale, Baldwin Park, Azusa, Duarte, Glendora, and West Covina. Table 4-1 in the Traffic Impact Analysis (Appendix G) shows that a total of 130,774 daily trips would be generated by the cumulative projects in the six cities. There is not a clear correlation between the cumulative projects daily trips and their combined impacts with the trips generated by the proposed project both on the identified study intersections (identified below in Table 3.12-5 from the Recirculated Draft EIR) and to intersections outside the 17 studied. 5

Table 3.12-5 Intersection Analysis Locations

ID	Intersection Location	Traffic Control	Jurisdiction
1	Live Oak Av. (West) (NS) / Arrow Hwy. (EW)	Signalized	Irwindale
2	Avenida Barbesa (NS) / Arrow Hwy. (EW)	Signalized	Irwindale
3	I-605 SB Off-Ramp (NS) / Arrow Hwy. (EW)	Signalized	Caltrans
4	I-605 NB On-Ramp/ Live Oak Ln. (NS) / Arrow Hwy. (EW)	Unsignalized	Caltrans
5	Arrow Hwy. (NS) / Rivergrade Rd. (EW)	Signalized	Irwindale
6	Stewart Av. (NS) / Rivergrade Rd. (EW)	Signalized	Irwindale
7	I-605 SB On-Ramp (NS) / Live Oak Av. (EW)	Signalized	Caltrans
8	I-605 NB Off-Ramp (NS) / Live Oak Av. (EW)	Unsignalized	Caltrans
9	Graham Access Rd. (NS) / Live Oak Av. (EW)	Signalized	Irwindale
10	Live Oak Ln. (NS) / Live Oak Av. (EW)	Unsignalized	Irwindale
11	Rivergrade Rd. (NS) / Live Oak Av. (EW)	Signalized	Irwindale
12	Stewart Av. (NS) / Live Oak Av. (EW)	Signalized	Irwindale & Baldwin Park
13	Baldwin Park Bl./Dwy. 3 (NS) / Live Oak Av. (EW)	Signalized	Irwindale & Baldwin Park
14	Arrow Hwy. (NS) / Live Oak Av. (EW)	Signalized	Irwindale
15	Maine Av. (NS) / Arrow Hwy. (EW)	Signalized	Irwindale & Baldwin Park
16	Arrow Hwy. (NS) / Dwy. 1 (EW) *(Future Intersection)*	Signalized	Irwindale
17	Arrow Hwy. (NS) / Dwy. 2 (EW) *(Future Intersection)*	Unsignalized	Irwindale

The Traffic Impact Analysis and the associated Draft EIR section should be revised to better explain how the trips generated by the cumulative projects either do or do not generate significant impacts in combination with the proposed project.

Impacts Relative to Project Variant

Only Sections 3.2, Air Quality, Greenhouse Gas, Odor, and Health Risk, and 3.12, Traffic Generation and Circulation, include a discussion and impact conclusion relative to the Project Variant. All sections in 3.0 (3.1 through 3.13) should include definitive conclusions relative to impacts associated with the Project Variant. There is broad statement in Section 2.0, Project Description, on page 2.0-19 *"If the EIR does not separately assess the Project Variant in an impact assessment in the EIR, the City has found that the impacts for the Project Variant is the same as for the Project."* However, there is no information disclosed within Section 3.0 that would allow the City to come to that conclusion. Therefore, it is imperative that the EIR clearly state whether or not the impacts for the Project Variant are the same as the Project, so that the information is clearly disclosed for the City to make that final determination. 6

Conclusion

On behalf of City of Azusa, we appreciate the opportunity to provide the City of Irwindale with comments on the Irwindale Materials Recovery Facility and Transfer Station Project Recirculated Draft EIR, and are available to discuss our comments in more detail.

Sincerely,

Kurt Christiansen, AICP
Director of Economic & Community Development

Response to Comment Letter 24

Response 24-1: The City has fully complied with section 15087(c) of the CEQA Guidelines. The Notice of Availability / Notice of Completion included the starting and ending dates for the public review period and was included in the package sent to the City of Azusa. Refer to the Final EIR, Appendix A for a copy of the notice. Additionally, the notice can be viewed on the City's website at: http://www.ci.irwindale.ca.us/

http://www.ci.irwindale.ca.us/DocumentCenter/View/950

Response 24-2: In response to this comment, the Recirculated Draft EIR on page 3.12-26 is revised as follows (new text is underlined and ~~strikethrough~~ is used for deleted text):

"Sole access for ~~transfer~~ trucks to and from the site would be from Arrow Highway, and directed towards Interstate 605 for regional transport, utilizing only City of Irwindale roadways."

Response 24-3: As shown in the Project Trip distributions included in the traffic study, other project truck trips are dispersed throughout the study area. It should be noted that the project is anticipated to add less than 50 trips to the I-210/Irwindale interchange since the project is estimated to send a maximum of 37 trips (2-way) during the PM peak hour (see Exhibit 2-J of the traffic study). Therefore, an intersection analysis at or near the I-210/Irwindale interchange area is not warranted.

The project's potential cumulative impact to the I-210 freeway segments and ramp facilities are included within Section 3.12.10 of the RDEIR.

Response 24-4: The traffic assessment does account for the entire range of project trips, including haulers, employees and patrons to the convenience store. The proposed waste management facility does not typically attract "visitors", and they are not included in the traffic assessment. As shown in the Project Trip distributions included in the traffic study, other project truck trips and employee trips are dispersed throughout the study area. The project is anticipated to add less than 50 trips to the I-210/Irwindale interchange; therefore, an intersection analysis at or near the I-210/Irwindale interchange is not warranted. Cumulative impacts to the I-210 freeway segment and ramp facility are included in Section 3.12.10 of the Final EIR.

Response 24-5: Cumulative traffic impacts are clearly correlated with potential impacts in the calculation of roadway, intersection and freeway ramp levels of service. Cumulative effects are measured as a result of a combination of 1) existing traffic added to 2) the Proposed Project's trip generation 3) together with other future developments contributing to travel on the same roads, intersections and freeway interchanges. Traffic impacts requiring additional roadway and related improvements to maintain acceptable level of service operations are presented for conditions both *with or without* the project. The impact assessment is not intended or required to examine the

potential effects of each of the projects in the cumulative project list individually, rather it evaluates them collectively to provide an understanding of cumulative conditions.

Response 24-6: The Valley County Water District is no longer pursuing any portion of the project site, and the project variant is no longer under consideration. Refer to Comment Letter 4.

The City appreciates the City of Azusa's participation in the public review process.

Comment Letter 25

BALDWIN P·A·R·K

September 24, 2014

Ms. Paula Kelly, Senior Planner
City of Irwindale
5050 N. Irwindale Avenue
Irwindale, CA 91706

RE: Comments related to the Irwindale MRF/TS Draft EIR (State Clearinghouse #2013051029)

Dear Ms. Kelly:

The City of Baldwin Park hereby respectfully submits comments on the proposed Recirculated Draft Environmental Impact Report (RDEIR) for the Material Recovery Facility and Transfer Station (MRF/TS), in the City of Irwindale. 1

On January 21, 2009, the City of Baldwin Park City Council adopted Resolution 2009-002 expressing opposition to the MRF/TS immediately abutting the city of Baldwin Park within the City of Irwindale. Therefore, to ensure the City of Baldwin Park's residents and businesses are adequately protected, the City Council of the City of Baldwin Park has no alternative but to strongly oppose the development of a MRF/TS at the proposed location (APN: 8535-001-911), which immediately abuts the jurisdictional boundary between the cities of Baldwin Park and Irwindale.

To protect the public good and the vital interests of the City, its residents, businesses, and potential visitors the City of Baldwin Park has retained the services of Environmental Science Associates' Dan Sicular, PhD, to review and asses the information contained in the Draft EIR. Dr. Sicular has over 20 years of consulting experience in waste management, recycling, waste prevention, and environmental review. He is the author of numerous academic and professional papers on local, national and international trends in the waste management and has provided his expertise in managing the environmental analysis of several land fill expansions and materials recovery facilities and transfer stations statewide. Dr. Sicular has reviewed the MRF/TS Draft EIR and provided his analysis on behalf of the City of Baldwin Park. His review and analysis, which details numerous deficiencies in the Draft EIR is attached.

As detailed in the attached analysis prepared by Dr. Sicular, the Recirculated Draft EIR for the proposed MRF/TS in the City of Irwindale fails to meet the standards of legal adequacy under the California Environmental Quality Act (CEQA), and also fails to meet

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current standards of practice for environmental review of regionally significant solid waste handling facilities as discussed in the attached letter.

1 con't

Therefore, based on the legal standards of adequacy established by CEQA and current standards of practice for environmental review of major solid waste facilities, the City of Baldwin Park hereby requests that this Recirculated Draft EIR be re-written and re-circulated.

Respectfully,

CITY OF BALDWIN PARK

Shannon Yauchzee
Chief Executive Officer

Attachment: ESA letter – September 18, 2014

cc: City of Baldwin Park Mayor and City Council
Honorable Congresswoman Grace F. Napolitano
Honorable State Senator Dr. Ed Hernandez
Honorable State Assemblyman Roger Hernandez
Honorable Gloria Molina, Los Angeles County Supervisor, District 1
City of Arcadia Mayor and Councilmembers
City of Azusa Mayor and Councilmembers
City of Duarte Mayor and Councilmembers
City of El Monte Mayor and Councilmembers
City of Irwindale Mayor and City Councilmembers
Baldwin Park Unified School District Board of Directors
Main San Gabriel Basin Watermaster
Upper San Gabriel Valley Water District Board Members
Valley County Water District Board Members
Valley View Mutual Water District Board of Directors
California Air Resources Board
California EPA—State Water Resources Control Board
California Department of Health Services
California Department of Toxic Substances Control
California Department of Transportation (District #7)
California Public Resources—Department of Conservation
California Regional Water Quality Control Board (Region #4)
CalRecycle Department of Resources, Recycling & Recovery
City of Los Angeles Department of Water and Power
Los Angeles County Department of Public Health
Los Angeles County Sanitation District
South Coast Air Quality Management District
Rivers and Mountains Conservancy
U.S. Army Corp. of Engineers, Los Angeles District
U.S. Environmental Protection Agency

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September 18, 2014

Mr. Shannon Yauchzee
Chief Executive Officer
City of Baldwin Park
14403 Pacific Ave.
Baldwin Park, CA 91706

Subject: Comments on Recirculated Draft Environmental Impact Report for the Irwindale Materials Recovery Facility and Transfer Station Project (State Clearinghouse Number 2013051029)

Dear Mr. Yauchzee:

At the request of the City of Baldwin Park, we have completed our review of the Irwindale Materials Recovery Facility and Transfer Station Project (Irwindale MRF/TS; the "project") Recirculated Draft Environmental Impact Report (RDEIR). This letter details the results of our review, which focused on identification of areas of the document that fail to meet standards of legal adequacy under the California Environmental Quality Act (CEQA), or that do not meet current standards of practice for environmental review of major solid waste handling facilities. Per the instructions in the RDEIR, our comments are restricted to the recirculated portions of the RDEIR, and include comments on the following: 2

Chapter 2 - Project Description

Chapter 3 – Cumulative Impacts (revised comments)

Chapter 3.3 - Air Quality, Greenhouse Gas, Odor, And Health Risk Assessment

Chapter 3.12 – Traffic Generation And Circulation

Chapter 4 – Mandatory CEQA Considerations

Chapter 5 – Alternatives

These comments supersede our comments on the same chapters provided to you in our comment letter on the Draft EIR, dated May 14, 2014, which is attached hereto. Other comments contained in the May 14, 2014 comment letter pertaining to other chapters of the EIR that were not recirculated are still valid, and we expect that the City of Irwindale will respond to those comments, as well as those contained in this letter.

Project Description

The Project Description has been revised to state that waste may be retained within the proposed MRF/Transfer building for up to 48 hours, double the maximum retention period stated in the previous version of the document. 3

However, the analysis of odor impacts in Chapter 3.3 (Threshold (i.e., impact) AQ-6) does not examine the potentially greater odor impacts associated with this significant project change.

The Project Description provides a list of project objectives (the RDEIR has added objectives of the project sponsor, Athens Services) on pages 2.0-20 but the description of the project itself does not reconcile with the objectives. There is no justification given for the massive scale of the facility. The communities currently served by Athens Services, the project sponsor, generate far less than 6,000 tons per day, the capacity of the proposed MRF/Transfer Station. There are numerous other facilities providing many of the same services intended for this project, including acceptance of self-haul loads, such that this project can only hope to capture a portion of the regional waste transfer and materials recovery market. The EIR should explain why such a large facility is necessary. Since one of the project objectives is to enable the City of Irwindale to comply with the AB 341 goal of diverting 75 percent of waste from landfill, the project description should provide information on the City's current diversion rate, and should describe why such a large capacity facility located within the City limits is necessary to achieve this goal. 3 con't

The Project Description briefly mentions that truck equipment maintenance and fueling would occur at the project site. Maintenance and fueling facilities should be thoroughly described in the Project Description. Potential impacts associated maintenance and fueling, including hazardous materials use and storage, and air emissions (including health risks associated with emissions of toxic air contaminants), should be analyzed. If the proposed gas station/convenience store is intended to provide fueling facilities for collection and transfer vehicles, this should be disclosed, and potential effects of use of the gas station by large trucks analyzed, including traffic congestion, traffic safety, and air quality.

Cumulative Impacts

Because the recirculated chapters of the RDEIR include cumulative impact discussions for each topic area, our general comments on cumulative impacts, revised from our May 14, 2014 letter, are provided. 4

The EIR fails to adequately disclose and analyze the project's cumulative impacts, including cumulative impacts related to noise, health risk, biological resources, cultural resources, public services and utilities, and hazards and hazardous materials.

When analyzing cumulative impacts there are two determinations that must be made: 1) a determination whether the combined impact of the project with other projects causing related impacts would be significant; and 2) a determination whether the project's incremental contribution to a cumulative impact is cumulatively considerable. If a lead agency finds that the cumulative impact is not significant, the EIR must include an explanation of the basis for the finding, supported by facts and analysis.

The cumulative impacts conclusions in the RDEIR are not supported by adequate facts and analysis. At the conclusion of each of the chapters, in the discussion of cumulative impacts, a cursory reference to the cumulative projects list in Chapter 3.0 is the only supporting evidence provided, but no analysis is given. The RDEIR simply makes a conclusory statement with no level of supporting detail. This fails to meet the standard of adequacy for analysis of cumulative impacts in an EIR. Each cumulative impact discussion should include a summary of the expected environmental effects of the listed cumulative projects related to the resource being analyzed, and whether the project would make a cumulatively considerable contribution to any identified cumulative impact. 4 con't

Three projects in particular, the Olive Pit Mine and Reclamation project, the Irwindale Speedway Shopping Center project, and the Irwindale Industrial Project, are located in close proximity to the MRF/TS project site. The potential effects of these large developments should be evaluated together and with the MRF/TS project to determine the potential for cumulative impacts, and the MRF/TS project's contribution to any such impact. This should include, in particular, analysis of cumulative traffic, air quality, health risk, odor, and hazards and hazardous materials impacts.

The Cumulative Projects List provided in Chapter 3.0 is out of date, having been compiled in early 2013, and should be updated.

The RDEIR also fails to define the geographic area used in the cumulative analysis of each resource area. In Chapter 3.0, the RDEIR provides a brief explanation and some broad examples of the geographic regions associated with certain resources when analyzing cumulative impacts, but provides no specifics with regard to which of the projects from the cumulative project list are relevant in the analysis of each resource. The RDEIR should include an explanation of the criteria for determining geographic area of impact analysis, and should provide information on the expected impacts from listed cumulative projects located within the geographic area.

Chapter 3.3 Air Quality, Greenhouse Gas (GHG), Odor, and Health Risk Assessment

Air Quality and Greenhouse Gases

The existing air quality data summary shown in Table 3.3-1 has been revised to include nitrogen dioxide concentrations. However, the table was not revised with the latest 2013 data for the pollutants. A complete table should be provided. 5

The 1-hour national standard for sulfur dioxide is omitted from Table 3.3-2. Additionally, the primary 1-hour PM2.5 national standard should be 12 µg/m3 rather than 15 µg/m3. A corrected and complete table should be provided. 6

Additional text was added on page 3.3-28 that states: "Site preparation would consist of land clearing and grubbing, haul trips would likely be required to export the materials from the project site." However, Table 3.3-7 does not indicate that any haul truck trips would occur during the site preparation phase. This indicates that the 7

RDEIR underestimates vehicle emissions for the construction phase. The calculation of construction emissions should be repeated, with the inclusion of site preparation haul trips. 7 con't

Mitigation Measures AQ-10 and AQ-11 call for the use of varying-pressure-low-volume paint applicators and use of super compliant VOC (and ROG) coatings for all architectural applications for the project, respectively. However, without a numerical performance standard, there is no assurance that implementation of these two mitigation measures would actually result in a 96 percent decrease in ROG emissions shown in Table 3.3-10 for the project's mitigated construction emissions. Therefore, the conclusion that Impact AQ-1 would be reduced to less than significant through implementation of the identified mitigation measures is not supported by the evidence provided. 8

It is indicated on page 3.3-37 that the use of CNG-fueled trucks by the project would result in a reduction of NOx emissions by approximately 25 percent, and PM_{10} and $PM_{2.5}$ emissions by 15 percent when compared to diesel-fueled trucks. However, no citation was provided in the RDEIR to support these contentions. 9

Based on the project's operational emissions calculations, it appears that only one idling event was assumed for the daily 1,648 trucks at the project site. As these trucks would idle at the project site during both unloading and loading operations, more than one idling event should be assumed for the trucks on a daily basis. The operational emissions calculations should be repeated, using a more realistic assumption regarding idling. 10

Page 3.3-39 indicates that all forklifts, lifts, and street sweepers would be powered by natural gas (either CNG or propane). However, neither the RDEIR section nor the air quality technical appendix (Appendix C) included any discussion of how the emission factors for these pieces of equipment, which were obtained from the OFFROAD model, were modified to account for lower pollutant emissions. 11

The project's operational emissions shown in Tables 3.3-13 and 3.3-14 excluded SO2 emissions, even though SCAQMD has established a daily operational threshold for SO_2. The missing information should be provided in revised tables, and SO_2 impacts disclosed. 12

The discussion on page 3.3-45 indicates that despite mitigation, the project's operational emissions of ROG and NOx would be significant and unavoidable. However, the impacts associated with the project variant with mitigation are not disclosed. 13

Based on a review of the project's operational emissions calculations, it does not appear that the operational GHG emissions indicated on page 3.3-68 accounted for CH_4 or N_2O emissions, as only CO_2 emissions associated with truck travel were used in determining the annual CO2e emissions. Based on the Climate Registry's 2014 emission factors, diesel-fueled medium and heavy-duty truck vehicles can have CH_4 and N_2O emission factors of 0.0051 g/mile and 0.0048 g/mile, respectively. Given the daily VMT associated with the project's trucks, the annual 14

CO_2e emissions for the project would be much greater than the amount reported in the RDEIR (i.e., of 58,803 metric tons of CO_2e) if CH_4 and N_2O were properly accounted for. 14 con't

With respect to the GHG emissions estimated for the project, it should be noted that new Global Warming Potential (GWP) values were adopted and published by the Environmental; Protection Agency (EPA) in early 2014. The new GWP values are not in CalEEMod 2013.2.2. As such, the CO_2e emissions generated for the project in CalEEMod should be modified to reflect the updated GWP values for CH_4 and N_2O, which would result in higher estimated emissions for the project. 15

Odors

In the Project Description (page 2.0-16), the RDEIR states that there will be a four-hour period each day during which transfer trucks may be loaded with refuse and parked outside on the project site. While the document states that trucks will be tarped, anyone who has spent time around loaded garbage trucks knows that no amount of tarping can prevent the escape of odors from these vehicles. This is especially true in warm weather. Appendix C, Air Quality provides a wind rose on page 23, and this figure indicates that wind from the northeast or north-northeast occurs approximately 20 percent of the time. This suggests that areas to the southwest and south-southwest, including residential and commercial areas in Baldwin Park, are likely to experience odorous air from parked transfer trucks. Most of the rest of the time, the wind is blowing from the southwest, which would carry odors to the Santa Fe Dam Recreation Area. The RDEIR fails to identify the potential for odors from parked trucks, or from trucks accessing and leaving the facility, to cause odors and to result in a significant effect on recreational users of the Santa Fe Recreation Area and on residents and businesses in Baldwin Park. 16

The RDEIR explains that "…air leaving the building at the roof exhaust fans will be treated by a non-toxic odor neutralizing misting system to mitigate any odors." (page 3.3-58). There is no identification of the odor neutralizing agent, or any demonstration that it would in fact be non-toxic. Neither is there information provided that demonstrates that this method of odor control been proven effective in similar situations, with similar daily tonnages of solid waste. The effectiveness of these measures, and their potential secondary effects on air quality and human health, should be examined. 17

As noted above, the project description has been revised to state that waste may be retained within the proposed MRF/Transfer building for up to 48 hours, double the maximum retention period stated in the previous version of the document. However, the analysis of odor impacts in Chapter 3.3 (Threshold AQ-6) does not examine the potentially greater odor impacts associated with this significant project change. 18

Health Risk

Although the health risk discussion (Threshold AQ-5) indicates that the project would have a less than significant impact with regard to increased risk to human health, the discussion and associated technical appendix do not 19

provide enough information for the reader to verify those results independently. The information provided, however, indicates that health risks have been substantially underestimated. 19 con't

For the fueling station, the project description states that the station would have eight pumps (page 2.0-13), while Appendix C states that the HRA modeling is based on a fueling station with six pumps (Appendix C, page 11). The HRA therefore appears to have used an incorrect assumption that would result in an understatement of project health risks. Furthermore, RDEIR page 3.3-57 states that gasoline and diesel volume were based on the average for "typical" stations in California. This may, however, seriously underestimate the amount of gasoline and diesel that would be sold at the proposed convenience store/fueling station. The reference provided indicates that, "the top 21% of reporting retail gasoline stations in California sold half of the total gasoline. The average of gasoline sales per station of the top 21% was 3.73 million gallons, or 311,000 gallons per month." This figure is much higher than the one apparently used as the basis for the health risk assessment. Typically, health risk estimates are based on the reasonable worst-case assumptions rather than average estimates. The use of an average instead of a reasonable worst- case throughput underestimates health risks. If the fueling station is intended to serve collection and transfer vehicles, or if a separate fueling facility is planned to serve these vehicles (see comment above under Project Description), emissions associated with dispensing the large quantities of fuel consumed by these vehicles should be accounted for in the health risk assessment. 20

The Chapter 3.3 cumulative impact discussion does not address the significance of the project's contribution to cumulative health risks, even though a significance threshold is stated for cumulative health risks on page 3.3-26. This serious deficiency needs to be corrected. Other nearby sources of toxic air contaminants that affect the same sensitive receptors, including freeways, industrial facilities, hazardous waste sites, and others, should be identified and quantified. The combined health risk of the project with these other projects should be disclosed and the significance stated. 21

Page 13 of Appendix C states that diesel particulate matter (DPM) emission factors were assumed to equal $PM_{2.5}$ emissions as generated using EMFAC2011. The California Air Resources Board's Findings of the Scientific Review Panel on The Report on Diesel Exhaust (http://www.arb.ca.gov/toxics/dieseltac/de-fnds.htm) states that "Almost all of the diesel particle mass is in the fine particle range of 10 microns or less in diameter (PM_{10}), and that approximately 94 percent of the mass of these particles are less than 2.5 microns in diameter." By using $PM_{2.5}$ instead of PM_{10} emission factors, the health risk assessment underestimates the health risks from trucks. This should be corrected by using PM_{10} emissions volumes as a surrogate for DPM. 22

Pages 24 and 25 of Appendix C discuss Toxicity Assessment assumptions and methods. OEHHA 2003 is cited as a reference. In 2012, OEHHA published a document that updated many of its health risk exposure parameters (OEHHA, 2012. Air Toxics Hot Spots Program Risk Assessment Guidelines, Technical Support Document for Exposure Assessment and Stochastic Analysis, Final, August 2012). For example, OEHHA has updated its daily breathing rates. Those updated breathing rates, especially for infants, do not appear to have been used in the MRF 23

health risk assessment, which indicates that the project's health risks have been substantially underestimated. The HRA should be revised to reflect OEHHA's updated health risk exposure parameters.

Appendix C is also deficient in that it does not contain enough information to allow reviewers to repeat or verify the analysis. The deficiencies include the following:

- HARP modeling results are not included. Consequently, the reader cannot verify the accuracy of the health risk calculations.
- Although Chapter 3.3 discusses the cancer-burden analysis, there is no information in Appendix C that shows how that burden was calculated.

In summary, the health risk analysis is deficient, since it uses improperly optimistic (i.e., not conservative) assumptions regarding emission rates, outdated emission and exposure factors, possibly flawed calculations, and fails to consider cumulative health risk impacts, all of which appear to have contributed to a substantial underestimation of health risks. The health risk assessment should be revised using current, generally accepted factors and methods. If this results in a determination that the project would have significant health risks or would make a cumulatively considerable contribution to cumulative health risks, then feasible mitigation measures and alternatives should be identified to avoid or substantially reduce these impacts.

23 con't

Chapter 3.12 Traffic Generation and Circulation

The RDEIR fails to make it clear to the reader that although intersection levels of service are described on the basis of both average delay and volume-to-capacity ratio, it is the former that is used to determine unacceptable conditions and significant impacts. The latter is included only because the City of Irwindale Policy Guidelines for Traffic Impact Reports stipulates that both delay and v/c ratio be presented.

24

The traffic study focuses on peak AM and peak PM hours, but solid waste facilities commonly experience surges of traffic at other times during the day. At the proposed facility, most traffic streams would have only two ways in (Driveways 1 and 2) and one way out (Driveway 1). An off-peak traffic surge would have the potential to create congestion within the facility that could limit the availability of Driveways 1 and 2 to inbound traffic. By causing delays within the facility, such a surge could also lead to unsafe actions by drivers that are exiting at Driveway 1. Within the technical appendices, page A-47 of Appendix A to the TIA provides data from the Sunset Environmental, Inc. Transfer Station in Irvine, CA, showing inbound and outbound traffic at 15-minute intervals. Off-peak surges are apparent from 9:30 to 11:30 a.m., 12:15 to 1:00 p.m., and 3:00 to 5:00 p.m. The traffic study should also model flows within the facility under surge conditions, at the design throughput rate of 6,000 tons per day, to determine if severe congestion within the facility could lead to traffic delays and traffic safety problems on nearby streets, including the Arrow Highway and Live Oak Avenue.

25

Chapter 4.0, Mandatory CEQA Considerations

RDEIR Chapter 4.0, Mandatory CEQA Considerations, includes a discussion of Growth Inducing Effects in Section 4.1, which concludes that "potential growth inducing impacts are found to be less than significant." The analysis of growth inducement must include a consideration of whether a project removes barriers to development, which could result in growth. Typically, projects that extend or expand essential infrastructure necessary for future development are considered growth inducing, as discussed in the RDEIR on page 4.0-1 (second paragraph in Section 4.1). The RDEIR fails, however, to consider whether a large transfer and recovery facility would remove a barrier to future development. This could occur because transfer and recovery facilities provide essential infrastructure, necessary for processing, recovering, and shipping waste. The project would result in a major expansion of capacity for waste processing and handling in the San Gabriel Valley, which would facilitate development within the wasteshed of the facility. The California Department of Finance projects that Los Angeles County's population will increase by about 1.5 million people over the next 30 years. With waste generation rates of about one ton per capita per year, the County will have to accommodate an increase in waste production of approximately 1.5 million tons per year. The project, with its massive over-capacity for current needs within the region, would provide capacity for future growth. Without the project, waste from new development in the region would have to be trucked greater distances, at higher costs, which would tend to make new development in the area less viable economically. 26

The analysis of growth inducing effects should be re-written to examine the impact of expanding waste processing and handling infrastructure, and the extent to which improved and expanded infrastructure will facilitate and induce growth in the region.

Chapter 5.0, Alternatives to the Proposed Project

The RDEIR's alternatives analysis in Chapter 5.0 does not meet the CEQA requirement to examine a range of reasonable alternatives. Only three alternatives are analyzed: the required No Project alternative, a Reduced Tonnage Capacity alternative, and a Source-Separated MRF alternative. The alternatives analysis fails to analyze an alternative location. Seven alternative sites are considered, but all are rejected for various reasons. Several of these alternative sites appear to meet the CEQA requirements of feasibility, and ability to avoid or lessen significant impacts of the project (CEQA *Guidelines* Section 15126.6(a)), and should not have been rejected from further consideration. Some of the sites, such as site 5, Sunburst Rock and site 7, Gore Point/Triangle, are rejected because site preparation would involve greater expense than the project site for site preparation, and/or existing tenants would have to be displaced. This violates CEQA *Guidelines* Section 15126.6(b), which states that, "…the discussion of alternatives shall focus on alternatives to the project *or its location* which are capable of avoiding or substantially lessening any significant effects of the project, *even if these alternatives would impede to some degree the attainment of the project objectives*, or *would be more costly*" (emphasis added). 27

The RDEIR arbitrarily and incorrectly limits the definition of feasibility of alternative sites for the project, with respect to their ability to meet project objectives. The RDEIR uses four different, conflicting standards for determining feasibility, based on ability to meet project objectives; none of these are consistent with the CEQA Guidelines section quoted in the previous paragraph: 28

> **"Criterion 1:** The Alternative must feasibly attain *most of* the Proposed Project's Objectives." (RDEIR page 5.0-5; emphasis added)
>
> "The following alternative locations were examined and dismissed from further evaluation because they *failed to achieve the Proposed Project's objectives*…." (RDEIR page 5.0-5; emphasis added)
>
> "The City reviewed seven (7) different locations for their potential siting of the Proposed Project. This list of potential alternative locations was initially considered by the City but each location was later rejected as infeasible during the environmental review process *based in part on not sufficiently meeting the Project Objectives*…." (RDEIR, page 5.0-5; emphasis added)
>
> "Therefore, this site is determined to be infeasible as an alternative location because *it fails to satisfy most of the Project's basic objectives for the foreseeable future.* (at the conclusion of each discussion of potential alternative locations on RDEIR pages 5.0-6 through 5.0-9; emphasis added).

As stated above, the CEQA *Guidelines* state that an alternative should be considered even if it would "…impede to some degree the attainment of the project objectives….." This standard should have been used in the evaluation of feasibility and selection of alternative locations.

It is beyond credibility to conclude that there is no suitable alternative location for the project within or close to the City of Irwindale, with its abundance of large industrial parcels. The Alternatives chapter should be re-written to include at least one feasible alternative location.

The failure of the RDEIR to properly analyze and disclose potentially significant air quality (including odors), health risk, greenhouse gas, noise, aesthetics, land use, and traffic impacts also results in improper criteria used for selection of alternatives, since alternatives should be selected that avoid or substantially lessen any of the significant effects of the project. (It is interesting to note that compatibility of surrounding land uses was apparently used as a criterion for selection of potential alternative sites, as is evident in Section 5.4 in the discussion of Alternatives Considered but Rejected, even though Chapter 3.9, Land Use and Planning, fails to identify incompatibility with surrounding land uses as a significant adverse effect of the project.) After the deficiencies in the technical sections have been corrected, and the full range and extent of significant impacts associated with the project have been disclosed, the selection of alternatives should be re-written to craft a range 29

of reasonable alternatives that have the ability to reduce or avoid the identified significant impacts. This would certainly result in the selection of an alternative site located at greater distance from residential and commercial areas, and that avoids or substantially lessens project impacts stemming from the project site's close proximity to these sensitive land uses. 29 con't

The RDEIR should also consider as an alternative the use of existing facilities, rather than construction of new facilities. For example, the Sanitation Districts of Los Angeles County owns and operates the 4,500 ton per day Puente Hills MRF/Transfer Station, located about 11 miles south of the City of Irwindale in the southern part of the San Gabriel Valley. Travel distance and time to this facility are reasonable for collection vehicles from the City of Irwindale and surrounding communities. The state-of-the-art facility has excellent access from Interstate 605, and is capable of recovering and processing a high percentage of incoming waste, resulting in substantial diversion of wastes from landfill. Furthermore, this facility is permitted to operate 24 hours per day, and has the capability of shipping materials both by truck and by rail. Rail is a much more efficient means of transportation than trucks, resulting in substantially less air pollution, including GHG emissions, criteria pollutants, and TACs, per unit of material transported. Use of the Puente Hills MRF/Transfer Station could feasibly attain the stated project objectives of increasing diversion, providing a state-of-the-art waste processing and transfer facility that minimizes environmental impacts, and using a facility that minimizes local and regional air quality and traffic impacts. This alternative would also reduce or completely avoid local aesthetic, land use, noise, and health risk impacts. 30

Neither does the RDEIR consider as an alternative the use of the new Azusa Material Recovery Facility and Waste Transfer Station. This facility, which has been approved by the City of Azusa and which is now under construction, is located less than two miles from the project site. The Azusa facility will have capacity to receive and transfer 2,500 tons per day of municipal solid waste plus 500 tons per day of greenwaste for composting, and in addition capacity to process 800 tons per day of material for recycling. This facility appears to have the capability of meeting, or at least partially meeting, all of the stated project objectives, including providing employment opportunities to local citizens, assisting the City of Irwindale in achieving and surpassing the State-mandated 75 percent recycling goal, providing a state-of-the-art waste processing and transfer facility that minimizes environmental impacts (the facility is projected to be LEED-certified), constructing the facility at a location with nearby Interstate access (the facility has good access to I-210, via Irwindale Avenue through an industrial area), and providing a disposal outlet accessible to local waste haulers during non-peak traffic hours (the facility's Solid Waste Facility Permit allows operations 24 hours per day, seven days per week). The Azusa facility is appropriately located in an industrial area adjacent to a landfill. Use of this facility would avoid all of the site-specific impacts of the project, including aesthetic, land use, noise, and health risk impacts. The alternatives analysis should be re-written to include an alternative in which the new Azusa Material Recovery Facility and Waste Transfer Station is used for processing and transferring waste materials from the City of Irwindale and other cities served by Athens Services. 31

Expansion and modernization of Athens Services' existing Materials Recovery Facility/Transfer Station, located in the City of Industry, should also be considered as an alternative to the project. 31 con't

We hope these comments result in another revision to the Draft EIR that fulfills the purpose and intent of CEQA, and that fully discloses the potential environmental impacts of the proposed Irwindale MRF/TS. Should you have any questions regarding our review, please do not hesitate to contact me.

Sincerely,

Dan Sicular, Ph.D.
Senior Managing Associate

BALDWIN
P · A · R · K

The comments in this letter are addressed in the Draft EIR Responses to Comments.

May 15, 2014

Ms. Paula Kelly, Senior Planner
City of Irwindale
5050 N. Irwindale Avenue
Irwindale, CA 91706

RE: Comments related to the Irwindale MRF/TS Draft EIR (State Clearinghouse #2013051029)

Dear Ms. Kelly:

The City of Baldwin Park hereby respectfully submits comments on the proposed Draft Environmental Impact Report (DEIR) for the Material Recovery Facility and Transfer Station (MRF/TS), in the City of Irwindale,

On January 21, 2009, the City of Baldwin Park City Council adopted Resolution 2009-002 expressing opposition to the MRF/TS immediately abutting the city of Baldwin Park within the City of Irwindale. Therefore, to ensure the City of Baldwin Park's residents and businesses are adequately protected, the City Council of the City of Baldwin Park has no alternative but to strongly oppose the development of a MRF/TS at the proposed location (APN: 8535-001-911), which immediately abuts the jurisdictional boundary between the cities of Baldwin Park and Irwindale.

To protect the public good and the vital interests of the City, its residents, businesses, and potential visitors, the City of Baldwin Park has retained the services of Environmental Science Associates' Dan Sicular, PhD, to review and asses the information contained in the Draft EIR. Dr. Sicular has over 20 years of consulting experience in waste management, recycling, waste prevention, and environmental review. He is the author of numerous academic and professional papers on local, national and international trends in the waste management and has provided his expertise in managing the environmental analysis of several land fill expansions and materials recovery facilities and transfer stations statewide. Dr. Sicular has reviewed the MRF/TS Draft EIR and provided his analysis on behalf of the City of Baldwin Park. His review and analysis, which details numerous deficiencies in the Draft EIR is attached.

As detailed in the attached analysis prepared by Dr. Sicular, the Draft EIR for the proposed MRF/TS in the City of Irwindale fails to meet the standards of legal adequacy under the California Environmental Quality Act (CEQA), and also fails to meet current standards of practice for environmental review of regionally significant solid waste handling facilities.

Therefore, based on the legal standards of adequacy established by CEQA and current standards of practice for environmental review of major solid waste facilities, the City of Baldwin Park hereby requests that this Draft EIR be re-written and re-circulated.

Respectfully,

THE CITY OF BALDWIN PARK

Marc Castagnola, AICP
Community Development Manager

Attachment: ESA comments on draft EIR - letter dated May 14, 2014

cc: City of Baldwin Park Mayor and City Council
Honorable Congresswoman Grace F. Napolitano
Honorable State Senator Dr. Ed Hernandez
Honorable State Assemblyman Roger Hernandez
Honorable Gloria Molina, Los Angeles County Supervisor, District 1
City of Arcadia Mayor and Councilmembers
City of Azusa Mayor and Councilmembers
City of Duarte Mayor and Councilmembers
City of El Monte Mayor and Councilmembers
City of Irwindale Mayor and City Councilmembers
Baldwin Park Unified School District Board of Directors
Main San Gabriel Basin Watermaster
Upper San Gabriel Valley Water District Board Members
Valley County Water District Board Members
Valley View Mutual Water District Board of Directors
California Air Resources Board
California EPA—State Water Resources Control Board
California Department of Health Services
California Department of Toxic Substances Control
California Department of Transportation (District #7)
California Public Resources----Department of Conservation
California Regional Water Quality Control Board (Region #4)
CalRecycle Department of Resources, Recycling & Recovery
City of Los Angeles Department of Water and Power
Los Angeles County Department of Public Health
Los Angeles County Sanitation District
South Coast Air Quality Management District
Rivers and Mountains Conservancy
U.S. Army Corp. of Engineers, Los Angeles District
U.S. Environmental Protection Agency

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May 14, 2014

Mr. Michael Taylor
Executive Team Manager
City of Baldwin Park
14403 Pacific Ave.
Baldwin Park, CA 91706

Subject: Comments on Draft Environmental Impact Report for the Irwindale Materials Recovery Facility and Transfer Station Project (State Clearinghouse Number 2013051029)

Dear Mr. Taylor:

At the request of the City of Baldwin Park, we have completed our review of the Irwindale Materials Recovery Facility and Transfer Station Project (Irwindale MRF/TS; the "project") Draft Environmental Impact Report (DEIR). This letter details the results of our review, which focused on identification of areas of the document that fail to meet standards of legal adequacy under the California Environmental Quality Act (CEQA), or that do not meet current standards of practice for environmental review of major solid waste handling facilities. Our comments are organized by chapter of the DEIR, preceded by general comments.

General Comments

The DEIR examines essentially the same project as the 2009 DEIR of the same title. The major differences between the projects analyzed involve site layout and access. The current DEIR also includes a "project variant," in which a portion of the project site would not be developed as part of the project, but rather would be used for new water tanks by the Valley County Water District. This would displace planned parking of transfer trucks on the project site, necessitating off-site parking.

This DEIR may therefore be considered a "recirculated Draft EIR," pursuant to CEQA *Guidelines* Section 15088.5 (though this document was preceded by a new Notice of Preparation, and the document carries a new State Clearinghouse number). This DEIR provides a much more complete project description and contains substantial new analysis, and generally is an improvement over the previous DEIR in terms of clarity and completeness. Nevertheless, this document, like the previous one, contains numerous instances of inadequately conducted analysis, resulting in frequent understatement or omission of potentially significant impacts associated with the project. The DEIR also fails to meet standards of adequacy for the cumulative impact analysis, alternatives analysis, and growth-inducing impact analysis, as detailed below.

CEQA *Guidelines* Section 15088.5 requires recirculation of a DEIR prior to certification when, "…significant new information is added to the EIR after public notice is given of the availability of the DEIR for public review… but before certification." The comments below, and information that should be included in an adequate response to these comments, add such significant new information, requiring recirculation of the document.

Specifically, the comments below identify significant new environmental impacts that the DEIR fails to identify; point out feasible mitigation measures or the need to develop such measures to reduce these impacts; and identify feasible alternatives that would avoid or substantially reduce some of the significant impacts of the project, and which should be included in a recirculated DEIR.

Document Presentation

The reproduction of the document is of such poor resolution that much of the information provided in the figures is illegible or indiscernible. For example, labels in the site plans and elevations in the Project Description and the Aesthetics chapter are illegible. This is true of a hardcopy of the document printed from the pdf file available at the City of Irwindale website, and also the pdf version itself when blown up on a high resolution computer screen. The poor quality of the reproduction obfuscates information that should be clearly and concisely disclosed regarding the project and its potential environmental effects, and deprives the public of meaningful opportunity to review and comment on the DEIR. The document should be reformatted at higher resolution and recirculated.

Specific Comments

Notice of Availability

The Notice of Availability issued by the City of Irwindale for the project fails to meet the requirements specified in CEQA *Guidelines* Section 15087(c). Specifically, the Notice of Availability does not contain the following required information:

- A brief description of the proposed project and its location.
- A list of the significant environmental effects anticipated as a result of the project.
- The address where copies of all documents referenced in the EIR are available for public review.
- The presence of the project site on any of the lists of sites enumerated under Section 65962.5 of the Government Code.

The Notice of Availability should be re-written to include this required information and re-issued, along with the specification of a new period for circulation and public review of the DEIR.

Project Description

The Project Description provides a list of project objectives on page 2.0-20 but the description of the project itself does not reconcile with the objectives. There is no justification given for the massive scale of the facility. The communities currently served by Athens Services, the project sponsor, generate far less than 6,000 tons per day, the capacity of the proposed MRF/Transfer Station. There are numerous other facilities providing many of the

same services intended for this project, including acceptance of self-haul loads, such that this project can only hope to capture a portion of the regional waste transfer and materials recovery market. The EIR should explain why such a large facility is necessary. Since one of the project objectives is to enable the City of Irwindale to comply with the AB 341 goal of diverting 75 percent of waste from landfill, the project description should provide information on the City's current diversion rate, and should describe why such a large capacity facility located within the City limits is necessary to achieve this goal.

The Project Description briefly mentions that truck equipment maintenance and fueling would occur at the project site. Maintenance and fueling facilities should be thoroughly described in the Project Description. Potential impacts associated maintenance and fueling, including hazardous materials use and storage, and air emissions (including health risks associated with emissions of toxic air contaminants), should be analyzed. If the proposed gas station/convenience store is intended to provide fueling facilities for collection and transfer vehicles, this should be disclosed, and potential effects of use of the gas station by large trucks analyzed, including traffic congestion, traffic safety, and air quality.

Cumulative Impacts

The EIR fails to adequately disclose and analyze the project's cumulative impacts, including cumulative impacts related to noise, health risk, biological resources, cultural resources, public services and utilities, and hazards and hazardous materials.

When analyzing cumulative impacts there are two determinations that must be made: 1) a determination whether the combined impact of the project with other projects causing related impacts would be significant; and 2) a determination whether the project's incremental contribution to a cumulative impact is cumulatively considerable. If a lead agency finds that the cumulative impact is not significant, the EIR must include an explanation of the basis for the finding, supported by facts and analysis.

The cumulative impacts conclusions in the DEIR are not supported by adequate facts and analysis. At the conclusion of each of the chapters, in the discussion of cumulative impacts, a cursory reference to the cumulative projects list in Chapter 3.0 is the only supporting evidence provided, but no analysis is given. The DEIR simply makes a conclusory statement with no level of supporting detail. This fails to meet the standard of adequacy for analysis of cumulative impacts in an EIR. Each cumulative impact discussion should include a summary of the expected environmental effects of the listed cumulative projects related to the resource being analyzed, and whether the project would make a cumulatively considerable contribution to any identified cumulative impact.

The DEIR also fails to define the geographic area used in the cumulative analysis of each resource area. In Chapter 3.0, the DEIR provides a brief explanation and some broad examples of the geographic regions associated with certain resources when analyzing cumulative impacts, but provides no specifics with regard to which of the projects from the cumulative project list are relevant in the analysis of each resource. The DEIR

should include an explanation of the criteria for determining geographic area of impact analysis, and should provide information on the expected impacts from listed cumulative projects located within the geographic area.

Chapter 3.2 Aesthetics

The DEIR in Chapter 3.2, Aesthetics, fails to consider the impacts of the project on scenic views from publically accessible viewpoints within the City of Baldwin Park. While Impact AES-1 purports to consider effects on scenic vistas, the DEIR fails to do this. Exhibits 3.3-1, 3.3-2, 3.3-3, 3.3-4, and 3.3-5 provide existing views of the project site from Live Oak Avenue and Baldwin Park Blvd. The viewpoints are south of the project site and the views look north, to and across the project site. All of these photographs clearly show the San Gabriel Mountains rising in the distance, behind the project site. While the DEIR acknowledges the presence of the San Gabriel Mountains in these views, it fails to acknowledge that views of the San Gabriel Mountains are an important visual element throughout the area. The San Gabriel Mountains, which rise to peaks over 10,000 feet, and which are sometimes snow-covered in the winter, provide a dramatic visual backdrop to the relatively flat lands of the San Gabriel Valley. Throughout the City of Baldwin Park and surrounding areas, views of the San Gabriel Mountains provide an important landmark and contribute greatly to the sense of place. Obstructing views of these mountains from publically accessible locations should be considered a significant environmental impact.

The visual simulations provided (Exhibits 3.2-11 through 3.2-16) are oblique aerial views, not ground-level views (with the exception of one from the top of the Santa Fe Dam, looking southwest). No visual simulations are provided to show the effects of the proposed development on the existing views shown in Exhibits 3.3-1 through 3.3-5. The proposed development would apparently be up to 61 feet high, with the parapet on the south side (along Live Oak Avenue) up to 51 feet high. Based on the existing views in Exhibits 3.3-1 through 3.3-5, and using trees and other visual elements as a gauge, the proposed development may completely or partially block views of the San Gabriel Mountains from the viewpoints used in Exhibits 3.3-1 through 3.3-5, and from many other publically accessible locations throughout the northern portion of Baldwin Park.

Impact AES-1 prematurely concludes that "…the visual change resulting from Project implementation will not eliminate a scenic view of the mountains from any direction" and that, "…therefore, the proposed Project will not have a substantial adverse effect on a scenic vista." This conclusion is not supported by evidence. The Aesthetics chapter should be re-written to include a complete analysis and discussion of the effects of the project on scenic views from publically accessible viewpoints within the City of Baldwin Park, particularly on views of the San Gabriel Mountains, and if necessary to identify feasible mitigation measures and alternatives to reduce or avoid this impact. The analysis should include visual simulations that demonstrate conclusively whether, and the extent to which, the proposed project would block these sensitive views.

Impact AES-1 also purports to examine whether the project would substantially degrade the existing visual character or quality of the project site and its surroundings. The analysis contained in the discussion of Impact AES-1, however, fails to do this. The area to the south of the project site, within the City of Baldwin Park, is

designated as a Commercial/Industrial area; further to the south are residential areas. Live Oak Avenue, which borders the project site on the south, is a divided, four lane boulevard with landscaped median and curb strips. While the project site itself is undeveloped, the south side of Live Oak Avenue, within the City of Baldwin Park, consists mostly of smaller commercial, light industrial, and service businesses. Developments typically are one-story and set-back from the street with landscaping and/or parking. Baldwin Park Boulevard and Maine Avenue, both of which run south into the City of Baldwin Park from Live Oak Avenue just across from the project site, have a similar character. Both of these streets become residential about a block south of Live Oak Avenue. Maine Avenue is identified as a Primary Gateway into the City in the Baldwin Park General Plan.

The project would completely change the visual character of this area, by constructing a very large (250,000+ square feet), imposing building immediately north of Live Oak Avenue. Furthermore, the facility is proposed to receive and ship waste 24 hours per day, seven days per week, and will receive as many as 2,400 trucks per day, including up to 559 transfer trucks. The scale of the development, the intensity of operations, and the levels and type of truck traffic all will alter the visual character of the northern part of the City of Baldwin Park, resulting in a significant aesthetic impact. The Aesthetics chapter also fails to assess the aesthetic impacts of litter emanating from the facility and from associated waste-hauling vehicles. While the DEIR references a very brief litter control "plan" that appears in Appendix B, the DEIR fails to acknowledge that all waste facilities inevitably produce litter. Litter from the facility and associated vehicles would contribute to aesthetic degradation in the vicinity of the facility, particularly the commercial, light industrial, and residential areas to the south within the City of Baldwin Park. The DEIR should be re-written to identify this impact as significant and to specify feasible mitigation measures and alternatives to reduce or avoid this impact.

The DEIR also fails to analyze the potential for a 6,000 ton per day MRF/Transfer Station to result in urban blight. This could occur because large waste processing facilities and associated waste-hauling vehicles on local roadways tend to discourage economic development, and to cause economic decline, in the vicinity of the facility. The DEIR Aesthetics chapter should be re-written to include an examination of the project's likely economic consequences for the area around the facility, should it be built, and the potential for the project to cause blight, particularly in the area south of the project site within the City of Baldwin Park. It is likely that an objective evaluation would identify blight as a significant impact, leading to the requirement to identify feasible mitigation measures and alternatives to avoid or reduce this impact.

Chapter 3.3 Air Quality, Greenhouse Gas (GHG), Odor, and Health Risk Assessment

Air Quality and Greenhouse Gases

The DEIR anticipates that construction of the project would require 18 months. Based on the CalEEMod outputs for the project's construction emissions, a shorter period of approximately 14.5 months was used in the calculations. This discrepancy should be justified or corrected.

A review of the CalEEMod output files for the project's construction emissions shows that no haul truck trips were accounted for during any of the construction phases. With 20 construction work days dedicated to the demolition phase in the model, it would appear that there should be some truck trips associated with the export of demolition waste from the site. Additionally, as the site preparation phase would consist of land clearing and grubbing, haul truck trips would also likely be required to export the materials from the site. Furthermore, based on the information provided in Exhibit 2-9 (Preliminary Grading Plan) of the DEIR, a total of 15,000 cubic yards of soil export is anticipated during construction. This would require approximately 750 truck trips using heavy duty diesel-powered trucks. None of the truck trips associated with soil export during grading was accounted for in the emissions calculations.

Although the project site consists of approximately 17 acres, the CalEEMod outputs show that only 10 acres of grading was accounted for in the construction emissions. From the site plans it would appear that the entire site would likely require grading. Grading-related emissions therefore appear to be underestimated.

Based on the CalEEMod outputs, the DEIR failed to account for asphalt paving off-gassing emissions associated with construction of parking lots and other outdoor paved areas.

The DEIR states on page 3.3-23 that a dust control efficiency of 75 percent due to daily watering and other measures was estimated, but does not describe what the "other" measures would include. Citing the SCAQMD *CEQA Air Quality Handbook*, it is stated that three water applications per day would reduce fugitive dust emissions by 68 percent. However, based on the fugitive dust mitigation measures listed in Table XI-A (Construction & Demolition) on SCAQMD's website (http://www.aqmd.gov/ceqa/handbook/mitigation/fugitive/MM_fugitive.html), applying water every three hours to disturbed areas within a construction site would have a PM_{10} control efficiency of 61 percent. Consequently, the DEIR underestimates construction-related dust emissions, by over-estimating the efficacy of mitigation measures.

The DEIR states that application of appropriate emission control devices, use of newer equipment, or other exhaust mitigation measures during project construction would reduce exhaust particulate matter by 50 percent. However, the DEIR is unclear with regards to which of these options were assumed in calculating the project's mitigated construction emissions, and how the percentage reduction of 50 percent was derived. Additionally, the DEIR should disclose which of the listed construction-related mitigation measures would be responsible for achieving the 50 percent reduction in exhaust particulate matter emissions. In short, the DEIR fails to provide substantial evidence that the stated reduction in exhaust particulate matter during project construction would be achieved.

Page 3.3-28 of the DEIR states that the project is expected to result in "relocated" emissions with respect to off-site vehicle emissions. The discussion postulates that because more than two-thirds of the materials that will be

driven to and away from the proposed project facility are currently being taken to other facilities in the South Coast Air Basin, these emissions are considered to be existing rather than new emissions. However, in order for these existing vehicle emissions to be considered "relocated" to the proposed project facility, these emissions that are currently occurring at the "other" facilities in the South Coast Air Basin must be permanently displaced and no longer allowed to occur. The DEIR does not provide any evidence that the operational capacity at the current MRF/TS facilities, along with their respective number of daily collection and transfer truck trips, would in fact be reduced once the project is implemented. Because there is no evidence or assurance that the operational capacity at the current MRF/TS facilities would be reduced, all of the truck trips associated with the proposed project would represent net "new" trips in the South Coast Air Basin, including the truck trips to all three landfill sites as well as recyclables to the ports of Los Angeles and Long Beach. Thus, the project's estimated operational emissions in the DEIR have been seriously underestimated. The air quality analysis should be re-done, without the assumption of "relocated" truck trips and related emissions.

The project's on-site construction emissions presented in Table 3.3-13 do not appear to match the on-site emissions generated from the CalEEMod model run. The DEIR should disclose the methodology used to calculate the on-site emissions shown in Table 3.3-13, or should correct the data provided in the table and reevaluate the significance conclusions.

Based on the fact that no haul truck trips were accounted for in the project's CalEEMod run for construction emissions, the LST analysis also appears to underestimate pollutant concentrations by not accounting for emissions generated from on-site truck travel during the project's construction phases.

The discussion under Threshold AQ-3 does not disclose the $PM_{2.5}$ concentration that was calculated for project operations, but indicates that it is below 5 $\mu g/m^3$. However, the SCAQMD's 24-hour threshold for operational PM2.5 concentrations is 2.5 µg/m3. Furthermore, the dispersion modeling output file for PM2.5 shows that the 8th highest, rather than the highest, 24-hr PM2.5 concentration was used. Either the highest modeled concentration should be used as a basis for the impact conclusion, or if another concentration is selected, a reason should be provided. Overall, the discussion of PM2.5 impacts should be re-written to disclose the estimated PM2.5 emissions and all assumptions used in calculating these emissions, and to evaluate the significance of these emissions with respect to the correct significance threshold.

Based on the project's operational emissions calculations, a one-way distance was used for collection trucks, while a roundtrip distance was used for the other truck trips associated with the project. The DEIR should explain why only a one-way travel distance was used for collection trucks.

The unmitigated and mitigated operational emissions for the project shown in Tables 3.3-9 and 3.3-11, respectively, do not appear to have accounted for emissions associated with truck idling. As such, the project's operational emissions appear to have been underestimated.

The analysis of the project's operational emissions shown in Tables 3.3-9 and 3.3-11 of the DEIR includes a footnote that states that the project's estimated operational emissions would not be different for the proposed project and the "project variant." However, as described in the Project Description of the DEIR, under the project variant no overnight parking for transfer trucks could be accommodated at the project site. In turn, the Applicant would need to hire off-site vendors for all transfer truck operations. As a result, an increase in the travel distance for vendor trucks would occur, which would result in additional on-road emissions. The DEIR fails to disclose the anticipated increase in emissions associated with the project variant. The analysis in the DEIR should be revised to include an explicit analysis of increased operational emissions associated with the project variant. The traffic analysis should also account for increased truck trips under the project variant.

The comments above noting the deficiencies and inconsistencies in the project's criteria pollutant emissions calculations during the construction and operational phases also apply to the GHG calculations conducted for the project. GHG emissions should be recalculated and disclosed, after addressing the methodological issues raised above.

Similar to the comment above regarding the project's operational emissions of criteria pollutants, the analysis of the project's net "new" GHG emissions generated during operations have been underestimated because the DEIR does not provide any evidence that the operational capacity at existing MRF/TS facilities, along with their respective number of daily collection and transfer truck trips, would in fact be reduced once the project is implemented. As such, additional off-set credits will need to be purchased for the project. In order to correct this underestimation of the severity of GHG impacts, the GHG analysis should be re-done to exclude the assumption of "relocated" truck trips and related emissions.

Page 3.3-52 of the DEIR indicates that the project is efficient with regard to energy use because the transfer truck trip mileage would be reduced from project implementation compared to existing baseline conditions. However, because the DEIR does not provide evidence or assurance that the operational capacity at existing MRF/TS facilities would be reduced, all of the truck trips associated with the proposed project should be considered net "new" trips in the South Coast Air Basin. Thus, there is no evidence that the project would result in increased energy efficiency. The conclusion regarding energy efficiency should be re-examined.

Odors

In the Project Description (page 2.0-16), the DEIR states that there will be a four-hour period each day during which transfer trucks may be loaded with refuse and parked outside on the project site. While the document states that trucks will be tarped, anyone who has spent time around loaded garbage trucks knows that no amount of tarping can prevent the escape of odors from these vehicles. This is especially true in warm weather. In the Technical Appendices, the Air Quality and Health Risk Assessment provides a wind rose on page 11, and this figure indicates that wind from the northeast or north-northeast occurs approximately 20 percent of the time. This suggests that areas to the southwest and south-southwest, including residential and commercial areas in Baldwin

Park, are likely to experience odorous air from parked transfer trucks. Most of the rest of the time, the wind is blowing from the southwest, which would carry odors to the Santa Fe Dam Recreation Area. The DEIR fails to identify the potential for odors from parked trucks, or from trucks accessing and leaving the facility, to cause odors and to result in a significant effect on recreational users of the Santa Fe Recreation Area and on residents and businesses in Baldwin Park.

The DEIR explains that "...air leaving the building at the roof exhaust fans will be treated by a non-toxic odor neutralizing misting system to mitigate any odors." (p. 3.3-42). It also refers to an On-Site Management Plan which says that exhaust air will be "drawn through odor-absorbing activated carbon." Which is it? If misting, how safe is the "non-toxic" odor neutralizing compound for sensitive receptors? And, has the method been proven effective in similar situations, with similar daily tonnages of solid waste? The effectiveness of these measures, and their potential secondary effects on air quality and human health, should be examined.

Health Risk

Although the health risk discussion (Threshold AQ-5) indicates that the project would have a less than significant impact, the discussion and associated technical appendix do not provide enough information for the reader to verify those results independently. The information provided, however, indicates that health risks have been substantially underestimated.

For the fueling station, the project description states that the station would have eight pumps, but does not provide the average throughput. The discussion states that the fueling station would dispense approximately 2.0 million gallons per year, but does not provide any reference except to state that it is based on the average throughout for similar-sized fuel dispensing stations in California. A reference is needed for this assumption, since the health risk assessment is based on fuel throughput. Typically, health risk estimates are based on the reasonable worst-case assumptions rather than average estimates. The use of an average instead of a reasonable worst- case throughput underestimates health risks. If the fueling station is intended to serve collection and transfer vehicles, or if a separate fueling facility is planned to serve these vehicles (see comment above under Project Description), emissions associated with dispensing the large quantities of fuel consumed by these vehicles should be accounted for in the health risk assessment.

The Chapter 3.3 cumulative impact discussion does not address the significance of the project's contribution to cumulative health risks. This serious deficiency needs to be corrected. Other sources of toxic air contaminants that affect the same sensitive receptors should be identified and quantified. The combined health risk of the project with these other projects should be disclosed.

Appendix C contains a technical report supporting the health risk assessment. Page 4 of Appendix C states that benzene, 1,3-butadiene, and formaldehyde would be emitted during gasoline dispensing but does not include any

explanation of why only these three TACs were evaluated, since evaporative emissions of gasoline contain many other TACs, as well.

Page 7 of Appendix C states that diesel particulate matter (DPM) emission factors were assumed to equal $PM_{2.5}$ emissions as generated using EMFAC2011. The California Air Resources Board's Findings of the Scientific Review Panel on The Report on Diesel Exhaust (http://www.arb.ca.gov/toxics/dieseltac/de-fnds.htm) states that "Almost all of the diesel particle mass is in the fine particle range of 10 microns or less in diameter (PM10), and that approximately 94 percent of the mass of these particles are less than 2.5 microns in diameter." By using $PM_{2.5}$ instead of PM_{10} emission factors, the health risk assessment underestimates the health risks from trucks. This should be corrected by using PM10 emissions volumes as a surrogate for DPM.

Page 7 of Appendix C describes DPM emission rates for vehicles, and Table 1 shows those emission rates. There are several problems with this discussion and Table 1. Table 1 shows emission factors for self-haul, T6, and T7 vehicles although the discussion makes no mention of T6 vehicles. Neither the discussion nor Table 1 indicates what year these emission rates represent. In addition, although the discussion indicates that idling was incorporated into the rates, it does not indicate how idling was incorporated. The discussion continues with "As shown, emission factors steadily decrease between the years 2015 and 2030." However, such a decrease is not shown in Table 1. The discussion and Table 1 need to be revised to show how the emission factors were estimated, including a listing of all assumptions that were used to generate emissions.

Page 8 of Appendix C indicates that "rural" dispersion modeling coefficients were used for the analysis based on Auer (1978). However, it is unclear why the rural coefficients were selected. Well over 50 percent of the land uses within three kilometers of the facility are urban, which implies that the urban modeling assumption should have been used. The use of the urban assumption would likely result in higher project concentrations, which would increase project health risks.

Page 13 of Appendix C includes a Table 2 that lists Health Risk Assessment Exposure Parameters for adults, children, and school receptors. The table lists an OEHHA 2003 document as a reference. In 2012, OEHHA published a document that updated many of its health risk exposure parameters, rendering many of the Table 2 assumptions obsolete. For example, OEHHA has updated its daily breathing rates (OEHHA, 2012. Air Toxics Hot Spots Program Risk Assessment Guidelines, Technical Support Document for Exposure Assessment and Stochastic Analysis, Final, August 2012). Those updated breathing rates, especially for infants, do not appear to have been used in the MRF health risk assessment, which indicates that the project's health risks have been substantially underestimated. The HRA should be revised to reflect OEHHA's updated health risk exposure parameters.

Appendix C is also deficient in that it does not contain enough information to allow reviewers to repeat or verify the analysis. The deficiencies include the following:

- HARP modeling results are not included. Consequently, the reader cannot verify the accuracy of the health risk calculations.

- Although page 3.3-42 of Chapter 3.3 discusses the cancer-burden analysis, there is no information in Appendix C that shows how that burden was calculated.

In summary, the health risk analysis is deficient, since it uses improperly optimistic (i.e., not conservative) assumptions regarding emission rates, outdated emission and exposure factors, incorrect dispersion coefficients, possibly flawed calculations, and fails to consider cumulative health risk impacts, all of which appear to have contributed to a substantial underestimation of health risks. The health risk assessment should be revised using current, generally accepted factors and methods. If this results in a determination that the project would have significant health risks or would make a cumulatively considerable contribution to cumulative health risks, then feasible mitigation measures and alternatives should be identified to avoid or substantially reduce these impacts.

Chapter 3.4, Biological Resources

The impact analysis in Chapter 3.4, Biological Resources, is based on surveys and research completed in 2009. While the DEIR states on page 3.4-1 that "the site conditions have been reviewed in 2012 and 2013, and determined to have had no substantial change since that time," there is no explanation of what this review consisted of: no evidence is provided to demonstrate that the information on which the analysis is based is in fact current. At the least, a qualified biologist should conduct a new site visit to ascertain whether conditions have changed since 2009, particularly to evaluate the potential for presence of burrowing owl, nesting birds, and roosting bats, as well as the presence or potential for presence of special status plants. Given the proximity of the site to the channel of the San Gabriel River, which is known to support special status plant and animal species, and the length of time that the site has sat empty, there is a moderate likelihood that the site now contains some sensitive habitat, such as riparian vegetation or wetlands, and that the site now supports or is capable of supporting special status plants and animals. In addition, a new query of the California Natural Diversity Database (CNDDB) and other biological resources databases should be conducted, to ascertain whether new occurrences of sensitive species may have been recorded in the vicinity of the project site since 2009. Updated information should be used to reexamine the conclusions of the DEIR regarding biological resources impacts, including cumulative impacts, and, if necessary, revise them.

Chapter 3.5, Cultural Resources

The impact analysis in Chapter 3.5, Cultural Resources is also based on a 2009 study. Again, the DEIR states (on page 3.5-1) that "site conditions have been reviewed in 2012 and 2013 and determined to have had no substantial change since the 2009 investigation, and the report is considered to be still current for purposes of the analysis." No explanation or description of the "review" of site conditions is provided, such that no evidence is provided that the description of site conditions from 2009 is still valid. A new cultural resources database search should be

conducted, along with a new pedestrian site survey. In addition, contact with the Native American Heritage Commission and local tribal representatives should be reinitiated. Updated information should be used to reexamine the conclusions of the DEIR regarding cultural resources impacts, including cumulative impacts, and, if necessary, revise them.

Chapter 3.8, Hazards and Hazardous Materials

The discussion of impact ("Threshold") HAZ-3 (mistakenly identified as HAZ-2) on page 3.8-28 concludes that the project would have a less than significant impact, with mitigation, with regard to hazardous emissions within one-quarter mile of an existing or proposed school. As noted in the discussion, the Margaret Heath Elementary School is located approximately one quarter mile south of the project site. The school is located less than one quarter mile south of Live Oak Ave, which will be used as a haul route by diesel collection trucks. The discussion of impact HAZ-3 fails to recognize emissions of DPM within one quarter mile of a school as a significant impact. The DEIR should be re-written to correct this omission, and to consider mitigation measures and alternatives that would avoid this impact.

The "Mitigation Program" presented in Chapter 3.8, page 3.8-30, provides two mitigation measures, apparently (but not explicitly) to mitigate impacts HAZ-1, -2, and -3. These mitigation measures do not meet the standards of adequacy described in the CEQA *Guidelines*, Section 15126.4. The discussion fails to demonstrate how the future formation of a committee, and the future writing of a plan, would mitigate the significant impacts identified. The DEIR fails to set a performance standard against which the mitigation measures can be compared, and fails to demonstrate how these measures will in fact reduce or avoid the impacts. The mitigation measures as presented constitute "deferred mitigation" as described in CEQA *Guidelines* Section 15126.4(b), and must be re-written.

Chapter 3.9, Land Use and Planning

The City of Baldwin Park General Plan establishes 14 "focus areas" throughout the City, with specific goals and policies addressed to each. One such area is the Northern Industrial Area – an area within the city limits along Live Oak Avenue/Arrow Highway. The proposed project is adjacent to this corridor on the north. Goals and policies for this focus area from the Economic Development Element of the General Plan include:

> **Goal 2.0**: Promote development of Northern Industrial Area.
>
> **Policy 2.4**: Promote establishment of commercial sites along Arrow Highway that will serve the industrial activity, through travelers, and the local community.

Goals and policies for this focus area from the Land Use Element of the General Plan include:

> **Goal 4.0**: Encourage development of commercial uses along Arrow Highway to support industrial uses and to serve travelers. Establish programs to improve the appearance and overall function of the area, including potential incorporation into a Redevelopment Project Area.
>
> **Policy 4.1**: Redesignate properties fronting Arrow Highway from *General Industrial* to *Commercial/Industrial*. Encourage the development of support retail and service commercial uses such as restaurants (including fast-food restaurants), service stations, personal service businesses, and the like.

Per the Baldwin Park General Plan, the *Commercial/Industrial* land use category is established to permit commercial, light manufacturing, and office uses in both business park settings and as individually developed lots. The designation encourages a mutually beneficial mix of service/retail commercial businesses with light industrial activities and professional office uses.

In Chapter 3.9, Land Use and Planning, the EIR wrongly states that the proposed project does not conflict with the City of Baldwin Park General Plan. The proposed project is not consistent with the adopted goals and policies of the City's General Plan which recognizes Arrow Highway as a major gateway to the City, and promotes and encourages a mix of visitor-serving uses (light manufacturing, commercial, office); not heavy intensity industrial uses such as the proposed project. The DEIR should be re-written to identify as a significant impact the inconsistency of the project with the plans and policies contained in the Baldwin Park General Plan, and mitigation measures and alternatives should be provided to avoid or substantially reduce this impact. As noted in the comments above regarding the aesthetics analysis, the potential for the project to result in blight in the northern portion of Baldwin Park should be examined.

Chapter 3.10, Noise

Page 3.10-17 of the DEIR discusses the relevant noise standards from the Baldwin Park Code of Ordinances, which is shown in Table 3.10-5, but does not include the "corrections" to the noise limits identified in Table 3.10-5 that are listed as part of Section 130.34(B) of the Baldwin Park Code.

Page 3.10-19 of the DEIR indicates that the project's operational-related noise levels would be considered significant if they exceed the City of Baldwin Park's interior and exterior noise standards that are shown in Table 3.10-4. However, the City of Baldwin Park's noise limits shown in Table 3.10-5 of the DEIR should also be applied to the project's operations.

Page 3.10-21 of the DEIR indicates that paving activities generating noise levels up to 89 dBA Leq will occur right at the property boundary. However, in the following sentence it is indicated that finishing activities, when accounting for an attenuation rate of 6 dBA per doubling of distance, would result in 83 dBA at the property boundary. It would seem that a noise level of 83 dBA would occur at 100 feet from the property boundary.

The construction noise impact discussion only briefly mentions that construction-related material haul trips would raise ambient noise levels along haul routes, but does not disclose what the estimated traffic noise levels would be on the roadways and whether construction-related traffic noise levels would result in a temporary substantial increase in ambient noise levels along the roadways.

Table 3.10-9 of the DEIR notes that an estimated noise level of 82 dBA at 50 feet from major MRF, Green Waste and Self Haul C&D entrance points would occur. However, there is no mention or discussion of how this noise level was estimated for project operations in the analysis. The DEIR should explain how this estimated level was deduced and whether this value represents an hourly average or a shorter averaging period (e.g., L25, L50, etc.). Additionally, no explanation is offered as to how a 10-dBA reduction is deduced based on minimal truck movements during night operations, particularly because the facility is proposed to operate 24 hours per day, seven days per week.

Table 3.10-9 interprets the City of Irwindale's ambient base noise levels as hourly average noise levels. However, Section 9.28.039 of the Irwindale Municipal Code does not state that the ambient base noise levels are hourly averages. As the noise-generating activities associated with project operations at the project site would typically occur over durations much shorter than an hour (as shown in Table 3.10-8 of the DEIR), the hourly averages presented in Table 3.10-9 of the DEIR may be understating the project's operational noise impacts.

Page 3.10-26 of the DEIR refers to an exterior noise level "L(12) limit of 65" for Baldwin Park residential uses. This limit does not correspond with the City of Baldwin Park's interior and exterior noise standards shown in Table 3.10-4 of the DEIR. Additionally, Table 3.10-5 of the DEIR indicates ambient base noise levels between 7 a.m. to 7 p.m. and 7 p.m. to 7 a.m. of 55 dBA and 45 dBA, respectively, for single-family residences. The DEIR does not include an evaluation of the project's operational noise impacts with respect to these ambient base noise levels for the nearest residential uses located south of the project site.

Under Threshold N-4 on page 3.10-33 of the DEIR, the analysis of the project's construction noise levels indicates that the maximum construction noise levels would reach up to 70 dBA at the Santa Fe Dam and Recreation trail. As the existing noise levels that were measured in the Santa Fe Dam and Recreation trail area ranged from 55-58 dBA, an increase in ambient noise levels of 12-15 dBA would occur, which is considered to be a significant increase in noise levels at a sensitive receptor. Thus, this should be identified as a significant impact.

Under Threshold N-4 on page 3.10-33 of the DEIR, the analysis indicates that the construction noise levels from the project at the nearest residential land use would be 73 dBA. However, based on the short-term daytime noise measurements that were taken at Noise Monitoring Location 2 (see Table 3.10-2 of DEIR), the Leq noise levels ranged from 55 dBA to 65 dBA. As the project's construction noise levels would result in a 9-18 dBA increase

over daytime ambient noise levels, it should be concluded that the project would result in a significant increase in noise levels at sensitive receptors in the project area.

Chapter 3.12 Traffic Generation and Circulation

The DEIR fails to put the project's responsibility for mitigation measures in the proper context as required by State policy and the CEQA *Guidelines*. Section 3.12.8 (Impact Analysis and Mitigation Program, on pages 3.12-67 through 3.12-78) presents findings of the intersection level of service (LOS) analyses, and identifies significant project impacts at 2 of the 17 study intersections, as follows:

> Intersection 3: I-605 Southbound Off-Ramp at Arrow Highway (signal control) Year 2035 plus Project Buildout;
>
> Intersection 8: I-605 Northbound Off-Ramp at Live Oak Avenue (side-street stop control) Existing plus Project Buildout, Year 2016 plus Project Buildout and Year 2035 plus Project Buildout.

The DEIR (page 3.12-66) states that the project is anticipated to contribute about 33 percent of the total new traffic expected by 2035 at the intersections of I-605 Southbound Off-Ramp / Arrow Highway and I-605 Northbound Off-Ramp / Live Oak Avenue (consistent with Table 7-1 of the Traffic Impact Assessment [TIA] in Appendix G), and that that would be the project's contribution to the costs of required off-site improvements at those intersections.

However, as stated above, the project would cause a significant impact at the I-605 Northbound Off-Ramp at Live Oak Avenue intersection under Existing conditions, i.e., the impact would be caused solely by the proposed project, meaning the project would be required to fully fund the required improvement, not simply pay a portion of the cost, to mitigate its significant impact.

Furthermore, the conclusion contained in the DEIR regarding the level of significance after mitigation needs to be reevaluated, for the following reasons:

> **Mitigation Measure T-1: I-605 Northbound Off-Ramps at Live Oak Avenue – install traffic signals, construct a second northbound right-turn lane on the slip ramp, and provide a third westbound through lane on Live Oak Avenue.** These measures would require widening the northbound off-ramp, and while such a ramp widening could be physically feasible, the City of Irwindale does not have the authority to implement the improvements (i.e., Caltrans must approve it). Without Caltrans' approval, the impact would remain significant and unavoidable, and that fact must be disclosed in the DEIR.
>
> **Mitigation Measure T-2: I-605 Southbound Off-Ramp at Arrow Highway – construct a second southbound left-turn lane on the off-ramp.** This measure would require widening the southbound off-

ramp, and while such a ramp widening could be physically feasible, the City of Irwindale does not have the authority to implement the improvements (i.e., Caltrans must approve it). Without Caltrans' approval, the impact would remain significant and unavoidable, and that fact must be disclosed in the DEIR.

The DEIR needs to make it clear to the reader that although intersection levels of service are described on the basis of both average delay and volume-to-capacity ratio, it is the former that is used to determine unacceptable conditions and significant impacts. The latter is included only because the City of Irwindale Policy Guidelines for Traffic Impact Reports stipulates that both delay and v/c ratio be presented.

The traffic study focuses on peak AM and peak PM hours, but solid waste facilities commonly experience surges of traffic at other times during the day. At the proposed facility, most traffic streams would have only two ways in (driveways 1 and 2) and one way out (driveway 1). An off-peak traffic surge would have the potential to create congestion within the facility that could limit the availability of Driveways 1 and 2 to inbound traffic. By causing delays within the facility, such a surge could also lead to unsafe actions by drivers that are exiting at Driveway 1. Within the technical appendices, page A-47 of Appendix A to the TIA provides data from the Sunset Environmental, Inc. Transfer Station in Irvine, CA, showing inbound and outbound traffic at 15-minute intervals. Off-peak surges are apparent from 9:30 to 11:30 a.m., 12:15 to 1:00 p.m., and 3:00 to 5:00 p.m. The traffic study should also model flows within the facility under surge conditions, at the design throughput rate of 6,000 tons per day, to determine if severe congestion within the facility could lead to traffic delays and traffic safety problems on nearby streets, including the Arrow Highway and Live Oak Avenue.

As noted above in the comments regarding air quality, the additional truck trips associated with the "project variant" should be accounted for in the traffic analysis.

Chapter 4.0, Mandatory CEQA Considerations

DEIR Chapter 4.0, Mandatory CEQA Considerations, includes a discussion of Growth Inducing Effects in Section 4.1, which concludes that "potential growth inducing impacts are found to be less than significant." The analysis of growth inducement must include a consideration of whether a project removes barriers to development, which could result in growth. Typically, projects that extend or expand essential infrastructure necessary for future development are considered growth inducing, as discussed in the DEIR on page 4.0-1 (second paragraph in Section 4.1). The DEIR fails, however, to consider whether a large transfer and recovery facility would remove a barrier to future development. This could occur because transfer and recovery facilities provide essential infrastructure, necessary for processing, recovering, and shipping waste. The project would result in a major expansion of capacity for waste processing and handling in the San Gabriel Valley, which would facilitate development within the wasteshed of the facility. The California Department of Finance projects that Los Angeles County's population will increase by about 1.5 million people over the next 30 years. With waste generation rates of about one ton per capita per year, the County will have to accommodate an increase in waste production of approximately 1.5 million tons per year. The project, with its massive over-capacity for current

needs within the region, would provide capacity for future growth. Without the project, waste from new development in the region would have to be trucked greater distances, at higher costs, which would tend to make new development in the area less viable economically.

The analysis of growth inducing effects should be re-written to examine the impact of expanding waste processing and handling infrastructure, and the extent to which improved and expanded infrastructure will facilitate and induce growth in the region.

Chapter 5.0, Alternatives to the Proposed Project

The DEIR's alternatives analysis in Chapter 5.0 does not meet the CEQA requirement to examine a range of reasonable alternatives. Only two alternatives are analyzed: the required No Project alternative and a Reduced Tonnage Capacity alternative. The alternatives analysis fails to analyze an alternative location. Seven alternative sites are considered, but all are rejected for various reasons. Several of these alternative sites appear to meet the CEQA requirements of feasibility, ability to attain most of the basic objectives of the project, and ability to avoid or lessen significant impacts of the project (CEQA *Guidelines* Section 15126.6(a)), and should not have been rejected from further consideration. Some of the sites, such as site 5, Sunburst Rock and site 7, Gore Point/Triangle, are rejected because site preparation would involve greater expense than the project site for site preparation, and/or existing tenants would have to be displaced. This violates CEQA *Guidelines* Section 15126.6(b), which states that, "…the discussion of alternatives shall focus on alternatives to the project *or its location* which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or *would be more costly*" (emphasis added). It is beyond credibility to conclude that there is no suitable alternative location for the project within or close to the City of Irwindale, with its abundance of large industrial parcels. The Alternatives chapter should be re-written to include at least one feasible alternative location.

The failure of the DEIR to properly analyze and disclose potentially significant air quality (including odors), health risk, greenhouse gas, noise, aesthetics, land use, and traffic impacts also results in improper criteria used for selection of alternatives, since alternatives should be selected that avoid or substantially lessen any of the significant effects of the project. (It is interesting to note that compatibility of surrounding land uses was apparently used as a criterion for selection of potential alternative sites, as is evident in Section 5.4 in the discussion of Alternatives Considered but Rejected, even though Chapter 3.9, Land Use and Planning, fails to identify incompatibility with surrounding land uses as a significant adverse effect of the project.) After the deficiencies in the technical sections have been corrected, and the full range and extent of significant impacts associated with the project have been disclosed, the selection of alternatives should be re-written to craft a range of reasonable alternatives that have the ability to reduce or avoid the identified significant impacts. This would certainly result in the selection of an alternative site located at greater distance from residential and commercial areas, and that avoids or substantially lessens project impacts stemming from the project site's close proximity to these sensitive land uses.

The DEIR should also consider as an alternative the use of existing facilities, rather than construction of new facilities. For example, the Sanitation Districts of Los Angeles County owns and operates the 4,500 ton per day Puente Hills MRF/Transfer Station, located about 11 miles south of the City of Irwindale in the southern part of the San Gabriel Valley. Travel distance and time to this facility are reasonable for collection vehicles from the City of Irwindale and surrounding communities. The state-of-the-art facility has excellent access from Interstate 605, and is capable of recovering and processing a high percentage of incoming waste, resulting in substantial diversion of wastes from landfill. Furthermore, this facility is permitted to operate 24 hours per day, and has the capability of shipping materials both by truck and by rail. Rail is a much more efficient means of transportation than trucks, resulting in substantially less air pollution, including GHG emissions, criteria pollutants, and TACs, per unit of material transported. Use of the Puente Hills MRF/Transfer Station could feasibly attain the stated project objectives of increasing diversion, providing a state-of-the-art waste processing and transfer facility that minimizes environmental impacts, and using a facility that minimizes local and regional air quality and traffic impacts. This alternative would also reduce or completely avoid local aesthetic, land use, noise, and health risk impacts.

Neither does the DEIR consider as an alternative the use of the new Azusa Material Recovery Facility and Waste Transfer Station. This facility, which has been approved by the City of Azusa and which is now under construction, is located less than two miles from the project site. The Azusa facility will have capacity to receive and transfer 2,500 tons per day of municipal solid waste plus 500 tons per day of greenwaste for composting, and in addition capacity to process 800 tons per day of material for recycling. This facility appears to have the capability of meeting, or at least partially meeting, all of the stated project objectives, including providing employment opportunities to local citizens, assisting the City of Irwindale in achieving and surpassing the State-mandated 75% recycling goal, providing a state-of-the-art waste processing and transfer facility that minimizes environmental impacts (the facility is projected to be LEED-certified), constructing the facility at a location with nearby Interstate access (the facility has good access to I-210, via Irwindale Avenue through an industrial area), and providing a disposal outlet accessible to local waste haulers during non-peak traffic hours (the facility's Solid Waste Facility Permit allows operations 24 hours per day, seven days per week). The Azusa facility is appropriately located in an industrial area adjacent to a landfill. Use of this facility would avoid all of the site-specific impacts of the project, including aesthetic, land use, noise, and health risk impacts. The alternatives analysis should be re-written to include an alternative in which the new Azusa Material Recovery Facility and Waste Transfer Station is used for processing and transferring waste materials from the City of Irwindale and other cities served by Athens Services.

Expansion and modernization of Athens Services' existing Materials Recovery Facility/Transfer Station, located in the City of Industry, should also be considered as an alternative to the project.

Table 5.0-1, Comparative Assessment of Alternatives to the Proposed Project, shows that traffic generation and circulation impacts of the Reduced Tonnage Capacity alternative would likely be equal to that of the proposed

project. However, the Reduced Tonnage Capacity alternative would reduce truck trips by 56% compared to the project. This would result in lesser traffic and circulation impacts.

The description of the Reduced Tonnage Capacity alternative states that the footprint of the MRF/Transfer Station buildings for this alternative would be the same size as for the project, despite the reduced throughput capacity. No explanation is provided for this phenomenon. A smaller building would reduce construction-related impacts and could also reduce aesthetics impacts.

We hope these comments result in a revised Draft EIR that fulfills the purpose and intent of CEQA, and that fully discloses the potential environmental impacts of the proposed Irwindale MRF/TS. Should you have any questions regarding our review, please do not hesitate to contact me.

Sincerely,

Dan Sicular, Ph.D.
Senior Managing Associate

Response to Comment Letter 25

Response 25-1: Comment noted. The City has undertaken a very rigorous and comprehensive environmental review of the proposed project completed over a period of several years, and including development of a Draft EIR, Recirculated Draft EIR, and this Final EIR with responses to all comments received. The City has made a very good faith effort to satisfy all CEQA requirements for full disclosure of potentially significant adverse effects that could result from the proposed project, including very conservative worst-case assessments of traffic and air quality.

Response 25-2: Comment noted. In the Final EIR, the City of Irwindale has responded to the City of Baldwin Park comments on the Draft EIR (ESA letter dated May 14, 2014, Comment Letter 11 in the Final EIR) and their comments on the Recirculated Draft EIR (ESA letter dated September 18, 2014, Comment Letter 25 in the Final EIR).

Response 25-3: Chapter 2.0 Project Description of the RDEIR [Page 2.0-16] was modified in response to State regulations pertaining to timing. The statement reads: "All vehicles loaded with putrescible residual materials will be removed from the site within of ~~24~~ 48-hours of receipt of the residual materials or less as required by regulations or permit requirements ~~of being loaded~~, and will be stored inside the MRF building for odor control." This edit was made to correct an inconsistency with Chapter 3.3 Air Quality. Please also see Response to Comment 25-18.

The applicant, Athens Services, designed the facility to receive, process and transfer up to a maximum of 6,000 tons per day (tpd), based upon estimated averages of 3,000 tpd of municipal solid waste, 1,000 tpd of green waste, 1,000 tpd of construction & demolition materials, and 1,000 tpd of self-haul waste. As stated on page 2.0-8 of the Recirculated Draft EIR, "Actual processing volume of each type of material per day could exceed these estimated averages and will depend on market factors and seasonal variations, but in no event will exceed 6,000 tpd in the aggregate. The overall volume of 6,000 tpd is based upon anticipated future market demand, which will be shaped in part by Athens' ability to competitively serve new communities in the San Gabriel / Los Angeles region, and in part by the response to the new integrated waste management mandates arising under several pieces of pending legislation in California, including Assembly Bill 1126 (Gordon), Assembly Bill 1594 (Williams), and Assembly Bill 1826 (Chesbro)."

Please also see Response to Comment 5-1. The City of Irwindale desires to participate in the reduction, recycling, and reusing of solid waste generated in the State to the maximum extent feasible, and by doing so, is compliant with AB 939.

Further on page 2.0-10 of the Recirculated Draft EIR, it states: "The square footage specifications for project elements within individual building footprints set forth in Table 2-2 above are estimates only based upon the preliminary Project design. The exact specifications for individual uses within a building footprint may be higher or lower than these estimates, but in each case not to exceed the aggregate square footage footprint for each individual building as set forth above."

ROG emissions from the operation of the service station were also determined external to CaLEEmod using emission factors from "Scenario 6B" of the California Air Pollution Control Officers Association (CAPCOA) *Air Toxics "Hot Spots" Program Gasoline Service Station Industry-wide Risk Assessment Guidelines.* These ROG emissions would result from four activities; loading and breathing losses (both related to the underground storage tanks), as well as refueling and spillage (both related to the fuel pumps). The City believes that the average throughput for similar-sized fuel dispensing stations in California is reflective of expected operations at the Proposed Project. The service station would have an estimated throughput of 1.6 million gallons of gasoline and 0.34 million gallons of diesel per year[25]. ROG emissions are primarily from gasoline fueling as compared to diesel fueling given the level of gaseous volatility. Facility truck fueling would not occur at the public service station.

Response 25-4: This comment is incorrect and out of context to the environmental review process that has been undertaken by the City. The cumulative project list was compiled in early 2013 which is the timeframe which is considered the baseline of the existing environmental setting. The City requested a project list from neighboring cities, which contributed to the 67 projects being listed in Table 3-1 Cumulative Project Table. Responses were received from Azusa, Baldwin Park, Duarte, Glendora, and West Covina.

The Olive Pit Mine and Reclamation project, Irwindale Speedway Shopping Center project and the Irwindale Industrial project were not "projects" at the time of the Notice of Preparation for the proposed project. No application for these projects had been received by the City at the time [May 2013] and were therefore not included on the original cumulative project list. They have been included and taken into consideration in the updated cumulative traffic impact assessment provided in the appendix to this Final EIR.

The EIR provides information regarding the geographical area used in assessing cumulative impacts. Specifically, page 3.0-5 states: "In reference to the geographical scope, some of the potential cumulative impacts associated with the Proposed Project are more localized in nature and, thus, are analyzed at a project level (for example: cultural resources, geology and soils, noise). Other cumulative impacts are regional in nature and are, therefore, analyzed at a regional level rather than at a project level (for example: air quality, greenhouse gas emissions). As such, these impacts are evaluated on a regional basis to analyze potential cumulative impacts."

Response 25-5: For additional information, the following table provides the 2013 monitoring data from the Azusa air quality monitoring station. The general trend is lower or similar concentrations compared to 2012 and no exceedances of the ambient air quality standard were observed. The

[25] California Energy Commission, Retail Fuel Report and Data for California, http://energyalmanac.ca.gov/gasoline/piira_retail_survey.html

additional data (similar air quality data to prior years) does not affect any of the conclusions in the RDEIR.

Air Quality Data Summary (2010 - 2013)

Pollutant	Monitoring Data by Year				
	Standard	2010	2011	2012	2013
Nitrogen Dioxide					
Highest 1 Hour Average (ppm)[b]	0.180	0.077	0.080	0.072	0.077
Days over State Standard		0	0	0	0
Highest 1 Hour 98th percentile (ppm)[b]	0.100	0.060	0.065	0.062	0.057
Days over National Standard		0	0	0	0
Annual Average (µg/m^3)[b]	0.030/0.053	0.019	0.019	0.020	0.018

NOTES: Values in **bold** are in excess of at least one applicable standard. NA = Not Available.

a. Generally, state standards and national standards are not to be exceeded more than once per year.

b. ppm = parts per million; µg/m3 = micrograms per cubic meter.

Source: USEPA (http://www.epa.gov/air/data/) CARB Air Quality Data Statistics (http://www.arb.ca.gov/adam/welcome.html, 2010–2013.

Response 25-6: The primary 1-hour SO_2 national standard has been included in **Table 3.3-2** for the Final EIR. The annual PM2.5 national standard has been corrected to 12 µg/m^3 for the Final EIR as shown below:

Table 3.3-2 State and National Criteria Air Pollutant Standards, Effects, and Sources

Pollutant	Averaging Time	National Standard
Sulfur Dioxide (SO_2)	1 Hour 3 Hour 24 Hour Annual	0.10 ppm 0.5 ppm 0.14 ppm 0.03 ppm
Fine Particulate Matter ($PM_{2.5}$)	24 Hour Annual	35 µg/m^3 12~~5~~ µg/m^3

Response 25-7: The export of soil (a total of 15,000 cubic yards involving 1,875 truck trips) is assumed to occur and included in the construction emissions estimated during the grading phase.

Response 25-8: The decrease in ROG emissions (96 percent) within Table 3.3-10 is the result of MM AQ-10 and AQ-11 (coating activities) as well as combustion mitigation measures (AQ-1 through AQ-9). The decrease in ROG emissions due to coating activities is the result of a decrease

of VOC content from 250 grams per liter (CaLEEMod default value) to 10 grams per liter (Super-Compliant value).

Response 25-9: CARB's EMFAC2011 provides emission factors for diesel and gasoline-fueled vehicles and trucks. Several studies have been conducted to estimate the emission factors from compressed natural gas (CNG) and diesel-fueled transit buses. According to USEPA's MOVES emissions model a 2012 model year diesel bus emits 94 percent less NOx per mile, 98 percent less PM, and 89 percent less HC than a model year 2000 (12-year old) diesel bus. A model year 2012 CNG bus emits 80 percent less NOx, 99 percent less PM, and 100 percent less HC than a model year 2000 diesel bus.[26] CARB's Carl Moyer Program Guidelines (July 11, 2014) and *Methods to Find the Cost-Effectiveness of Funding Air Quality Projects* (May 2013) provide emission standards for CNG (1.8 NOx + NMHC) and diesel-fueled (2.5 NOx + NMHC) urban buses and estimate a 35 percent reduction in NOx emissions and 47 percent reduction in $PM_{2.5}$ emissions.[27]

Nevertheless, industry standard practice is to use EMFAC diesel emissions factors from 2030 as surrogates for CNG truck emission factors. That is, the USEPA 2007 heavy duty truck emissions requirements have similar emission factors to alternatively fueled collection trucks[28] that currently make up approximately 68 percent of the fleet (both owned by the Applicant and third parties). Therefore, the collection truck emission factors used for this analysis consisted of 68 percent 2030 heavy duty (T7) trucks to represent the current CNG-fueled fleet and 32 percent 2015 heavy duty (T7) trucks to represent the current conventionally fueled trucks. Using this method and very conservative assumptions (i.e., reductions would likely be higher), compared to diesel trucks, NOx emissions are reduced by approximately 25 percent, and PM_{10} and $PM_{2.5}$ emissions by 15 percent for CNG trucks.

Response 25-10: MM AQ-18 (page 3.3-43 of the RDEIR) states that the Proposed Project will comply with Airborne Toxic Control Measure (CCR, Title 13, Section 2485), which limits vehicles with gross vehicular weight ratings of more than 10,000 pounds to no more than five minutes of idling. Trucks would idle on the Proposed Project site during unloading and during load weighing/financial transaction at the scale house. Idling emissions were calculated using idling emission factors from the EMFAC2011 model.

[26] Clean Diesel versus CNG Buses: Cost, Air Quality, & Climate Impacts, February 22, 2012, http://www.catf.us/resources/publications/files/20120227-Diesel_vs_CNG_FINAL_MJBA.pdf
[27] Carl Moyer Program Guidelines, September 24, 2014, http://www.arb.ca.gov/msprog/moyer/guidelines/current.htm and Methods to Find the Cost-Effectiveness of Funding Air Quality Projects, May 2013, http://www.arb.ca.gov/planning/tsaq/eval/evaltables.pdf
[28] Azusa Materials Recovery facility and Transfer Station Air Quality Assessment, December 22, 2010, http://www.ci.azusa.ca.us/DocumentCenter/View/5665

MM AQ-18

All diesel truck operators shall strictly abide by the applicable State law requirements for idling, as described in the Airborne Toxic Control Measure (CCR, Title 13, Section 2485), which limits vehicles with gross vehicular weight ratings of more than 10,000 pounds to no more than five minutes of idling of the primary engine or the diesel-fueled auxiliary power system at any location. Trucks engaging in unloading at the Project site and load weighing/financial transactions at the scale house shall be prohibited from idling in excess of five minutes. Visible signage notifying truck operators of idling limits shall be posted near all site entrances.

Response 25-11: The emission factors for CNG and propane onsite equipment were based on the California Emissions Estimator Model, *User's Guide (July 2013)*, Appendix D, (September 2013). Table 3.4 (OFFROAD Equipment Emission Factors), and Table 3.6 (Percent Reduction in Diesel Emission Factors for Compressed Natural Gas Equipment). This information is found at http://www.caleemod.com/.

Response 25-12: As stated in the RDEIR (page 3.3-40), the SO_2 emissions are less than one pound per day; a result of ultra-low sulfur diesel.

Response 25-13: The VCWD has withdrawn its proposal to consider acquiring property within the project site, and the Project Variant has been eliminated from further consideration.

Response 25-14: Notably, CARB's EMFAC and OFFROAD emissions model for onroad vehicles and offroad equipment does not provide CH_4 and N_2O emission factors. As a sensitivity analysis, the total CO_2 emissions from haul trucks were estimated to be 54,294 metric tons (or approximately 92 percent of the project total of 58,803 metric tons). Based on the Climate Registry emissions factors for CH_4 and N_2O,[29] the haul trucks would add an additional 46 metric tons of CO2e (or less than 0.08 percent of the project total). These values are based on the Intergovernmental Panel on Climate Change (IPCC) Fourth Assessment Report. Thus, CH_4 and N_2O emission contribution to the overall GHG emissions would be expected to be minimal for this project.

Response 25-15: The CaLEEMOD uses Global Warming Potentials for CH_4 and N_2O of 23 and 296, respectively, based on the IPCC Fourth Assessment Report. In 2014, the Fifth Assessment Report revised these values to 34 and 298, respectively. From Response to Comment 25-14, using the Fifth Assessment Report, the haul trucks would add an additional 48 metric tons of CO2e (a very minimal difference).

Response 25-16: See Response to Comment 11-24.

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[29] *2014 Climate Registry Default Emission Factors,* http://www.theclimateregistry.org/downloads/2014/02/2014-Climate-Registry-Default-Emissions-Factors.pdf

Response 25-17: See Response to Comment 11-25.

Response 25-18: Compliance with all applicable provisions of Rule 410 is required by SCAQMD regulations. There are no CalRecycle rules that require removal of materials from a facility in less than 24 hours. Solid waste regulations specify that "facilities shall remove solid waste accepted at the site within 48 hours from the time of receipt (Article 6.2, Section 17410.1).
Odors would not be expected to change substantially while retained on site for up to 48 hours. Most solid waste would generally be discarded for several days or more before reaching the MRF/TS and the odor potential would not substantially change over a 48-hour period. See also Response to Comment 5-2.

Response 25-19: It would be impractical for all lay readers to understand all technical reference materials cited in an EIR due to the multi-disciplined nature of an EIR and the number of technical professionals involved in its preparation. As required by 2014 State CEQA Guidelines §15147 "Placement of highly technical and specialized analysis and data in the body of an EIR should be avoided through inclusion of supporting information and analyses to the main body of the EIR."

Appendix C contains a narrative of the methodology, assumptions, and data associated with the HRA and LST including terms and definitions, uncertainties, hazards identifications, exposure assessment, model selection, model options (e.g., rural vs. urban coefficients), the location of receptors, meteorological data, toxicity assessment, and risk characterization.

The data files with Appendix C include ambient monitoring data, the construction and operation emission calculation spreadsheets, the service station emission calculation spreadsheets, the CaLEEMod input and output, the EMFAC and OFFROAD input and output files, the AERMOD dispersion modeling files with meteorological and terrain data, and the calculation spreadsheets for the HRA and LST analysis.

Response 25-20: Appendix C, page 11 of the Recirculated Draft EIR has been revised to reflect the analysis and the project description of eight fueling pumps (new text is <u>underlined</u> and ~~strikethrough~~ is used for deleted text):

"Secondly, the applicant is proposing to include a ~~six~~ <u>eight</u> pump vehicle fueling facility. Fuel (gasoline) dispensing operations would result in reactive organic gas (ROG) emissions which include TACs such as benzene, 1,3-butadiene, and formaldehyde (although the 16 air toxics contained with gasoline fuel were included in the analysis). These ROG emissions would result from four activities; loading and breathing losses (both related to the underground storage tanks), as well as refueling and spillage (both related to the fuel pumps). The following are additional details concerning these emission points:

- Loading emissions occur when a cargo tank truck unloads gasoline to the storage tanks at the gasoline station. Storage tank vapors are emitted from the vent pipe during the initial fuel transfer period. These emissions are significantly reduced when the vent pipe includes a pressure/vacuum valve.
- Gasoline vapors are emitted from the storage tank vent pipe due to temperature and pressure changes within the storage tank vapor space.
- During the refueling process, gasoline vapors are emitted at the vehicle/nozzle interface.
- Spillage emissions occur from the spills during vehicle fueling."

The City believes that the average throughput for similar-sized fuel dispensing stations in California is reflective of expected operations at the Proposed Project. The service station would have an estimated throughput of 1.6 million gallons of gasoline and 0.34 million gallons of diesel per year[30]. ROG emissions are primarily from gasoline fueling as compared to diesel fueling given the level of gaseous volatility. Facility truck fueling would not occur at the public service station.

Response 25-21: The significance thresholds for health risks are increases in risk caused by projects. The methodology is inherently a cumulative analysis because it evaluates increases over the existing background. Any representation of cumulative risk associated with other future projects is typically qualitative. The following information related to existing health risks in Irwindale was included in the RDEIR on pages 3.3-8 and 3.3-9.

> "Due to City concerns about possible cancer risks from the industrial activity in the City, the City funded a study by Soil Water Air Protection Enterprise (SWAPE) in 2013 to evaluate the cancer rates in the City of Irwindale. The effort was in collaboration with the Cancer Surveillance Program. The Cancer Surveillance Program manages a database of all cancer diagnoses, recorded by the patient's residential address within Los Angeles County, and reports these data to the California Cancer Registry. In addition to total cancer cases, four common cancers were evaluated from 2001 through 2010: breast, colon, lung and oropharyngeal, and prostate. Other cancers could not be evaluated for confidentiality reasons, because they occurred in such low numbers. Annual age-adjusted incidence rates were calculated for Irwindale, bordering census tracts, Los Angeles County, and California. Irwindale's rates were then evaluated against the rates of the other three regions.
>
> The cancer assessment found that the Irwindale area has no significant excess of breast, prostate, colon, and lung/oropharyngeal cancers relative to neighboring census tracts, Los Angeles County, and California. In fact, Irwindale was found to have lower cancer incidence than surrounding census tracts, Los Angeles County, and California.[31]"

[30] California Energy Commission, Retail Fuel Report and Data for California, http://energyalmanac.ca.gov/gasoline/piira_retail_survey.html

[31] Soil Water Air Protection Enterprise, *Air Quality and Cancer Incidence Assessment of Irwindale, California*, January 2014.

Response 25-22: Please see Response to Comment 11-30.
The CARB's Findings of the Scientific Review Panel on The Report on Diesel Exhaust (http://www.arb.ca.gov/toxics/dieseltac/de-fnds.htm) states that approximately 92 to 94 percent of the mass of diesel particles are less than 2.5 microns in diameter ($PM_{2.5}$). PM_{10} includes particles smaller than 10 microns in diameter. One micron equals one-millionth of a meter. Particles with a diameter between 2.5 and 10 microns are sometimes referred to as "coarse particles". Particles with a diameter of 2.5 microns and less are referred to as "fine particles". Combustion emissions tend to be fine particles, whereas fugitive dust (and vehicle brake and tire wear) is mostly coarse particles. The available evidence indicates that smaller particles in the fine and ultrafine size ranges are generally more harmful than coarse particles. Smaller particles typically remain suspended in the air for longer periods. [32]

Diesel PM is a subset of $PM_{2.5}$ that is emitted by diesel engines. The CARB has identified diesel PM as a carcinogenic pollutant that may cause lung cancer. Although lung cancer is clearly a major public health issue, it should be noted that exposure to diesel PM may cause a wide range of respiratory and cardiovascular effects in addition to lung cancer. In fact, to the extent that diesel PM contributes to premature mortality, analysis suggests that this is primarily due to its role as a component of $PM_{2.5}$. Thus, the $PM_{2.5}$ exhaust emissions were represented as DPM.

Response 25-23: See Response to Comment 11-33 and 11-34.
A cancer burden analysis is a form of population-level risk evaluation that is commonly used for risk communication purposes to provide perspective on the magnitude of the potential public health impacts posed by a facility. The cancer burden was estimated following methods recommended in OEHHA guidance. The cancer burden for each of these receptors is calculated by multiplying the cancer risk by the residential population at each receptor. The total cancer burden is the sum of the cancer burden for each of the census receptors. The results of the cancer burden analysis provide an estimate of the number of excess cancer cases in the exposed population expected from lifetime (70-year) exposure to proposed facility emissions. The results of the cancer burden analysis indicate that less than one case (0.014) of cancer would be expected within three kilometers of the Proposed Project. A value of 0.5 or higher is considered significant by the SCAQMD. Therefore, the Proposed Project would have a less than significant impact towards the cancer burden.

[32] BAAQMD, Understanding Particulate Matter: Protecting Public Health in the San Francisco Bay Area, November 2012 (http://www.baaqmd.gov/~/media/Files/Planning%20and%20Research/Plans/PM%20Planning/UnderstandingPM_Draft_Aug%2023.ashx), California Air Resources Board, Risk Reduction Plan to reduce Particulate Matter Emissions from Diesel-fueled Engines and Vehicles, October 2000 (http://www.arb.ca.gov/diesel/documents/rrpfinal.pdf), and California Air Resources Board, Characterization of Ambient PM10 and PM25 in California, June 2005 (http://www.arb.ca.gov/pm/pmmeasures/pmch05/stateover05.pdf).

Response 25-24: In Chapter 3.12 of the Recirculated Draft EIR, the statement is made on page 3.12-73 that "The HCM results present a more accurate representation of the intersection operational level." This statement is reiterated on page 3.12-80 of the Recirculated Draft EIR.

Response 25-25: Peak hour traffic volumes on study area roadways are significantly higher than the off-peak periods of 9:30 to 11:30 a.m., 12:15 to 1:00 p.m., and 3:00 to 5:00 p.m., as shown on the 24-hour counts presented in Appendix B to the TIA. Project traffic activity during off-peak hours, combined with background off-peak traffic flows, does not present worst-case traffic conditions and are therefore not the focus of the project traffic impact analysis. As shown on page A-47 of Appendix A to the TIA, the off-peak "surges" discussed above are not significantly higher than peak hour project activity in terms of the number of truck trips generated, ranging from -4 to +9 truck trip ends (comparing off-peak hours to PM peak hour).

Response 25-26: The City does not agree that expanded waste management capacity removes any major barriers to growth in this heavily urbanized region. Rather, the EIR concluded [on pages 4.0-2/3] "The Proposed Project does not remove any barriers to growth, and does not have characteristics that could induce growth locally or regionally. Therefore, potential growth inducing impacts are found to be less than significant." Waste management is a competitive business in California, and simply adding additional capacity does not induce the production of more waste or stimulate residential development.

The City does concur with the commenters statement that: "Without the project, waste from new development in the region would have to be trucked to greater distances, at higher costs, which would tend to make new development in the area less viable economically." While this project will not remove a significant barrier to growth, it does have the potential to provide important benefits to the region for truck traffic and related air emissions.

Response 25-27: The RDEIR alternatives analysis in Chapter 5.0 does consider a reasonable range of alternatives to meet CEQA requirements.

CEQA does not require a project to include the evaluation of an alternative location. However, the EIR considered 7 alternative site locations. As stated on page 5.0-5 of the Recirculated Draft EIR: "The City reviewed seven (7) different locations for their potential siting of the Proposed Project. This list of potential alternative locations was initially considered by the City but each location was later rejected as infeasible during the environmental review process based in part on not sufficiently meeting ~~some or all of~~ the Project Objectives, as well as not reducing or avoiding potential impacts to a greater extent than the Proposed Project. Based on this, and consistent with the requirements of CEQA Guideline §15126.6(f)(2), all seven site alternative sites were rejected from further consideration (refer to Exhibits 5.0-1 through 5.0-7)."

Response 25-28: See Response 25-27.

Response 25-29: The comment is not supported by any factual assessment or reasoned examination of the RDEIR. The City has undertaken a very rigorous and comprehensive environmental review of the proposed project completed over a period of several years, and including development of a Draft EIR, Recirculated Draft EIR, and this Final EIR with responses to all comments received, and has made a very good faith effort to satisfy all CEQA requirements for full disclosure of potentially significant adverse effects that could result from the proposed project.

Response 25-30: The consideration of a project alternative to use an existing facility [11 miles out of the City limits] does not support the City's or Applicant's project objectives. The assertion that such an alternative would also reduce or completely avoid local aesthetic, land use, noise and health risk impacts is unsupported by any analysis.

Response 25-31: See Response 25-30. The assertion that these other MRF/TS alternative options would also reduce or completely avoid local aesthetic, land use, noise and health risk impacts is unsupported by any analysis.

The City of Irwindale appreciates the City of Baldwin Park's participation in the public review process.

CITY OF COVINA

125 East College Street ● Covina, California 91723-2199
www.covinaca.gov

Comment Letter 26

September 4, 2014

Ms. Paula Kelly, Senior Planner
City of Irwindale
5050 North Irwindale Avenue
Irwindale CA, 91706

Subject: CITY OF IRWINDALE NOTICE OF AVAILABILITY OF THE REVISED DRAFT EIR REGARDING MATERIALS RECOVERY FACILTY AND TRANSFER STATION PROJECT.

Dear Ms. Kelly:

The City of Covina has received the Notice of Completion/Notice of Availability regarding the draft EIR for the Irwindale Materials and Recovery Facility and Transfer Station Project. The City has read over the notification and has taken note of the significant environmental effects the Irwindale Materials and Recovery Facility and Transfer Station is expected to have. At this time the City has no comments regarding the Irwindale Materials Recovery and Transfer Station Project. Thank you for the opportunity to review the draft EIR. 1

Sincerely,

Jonathan Perez
Planning Aide

Cc: Nancy Fong, Interim Community Development Director
Alan Carter, City Planner
Vidal Marquez, Assistant Planner
Cyndie Petersen, Senior Administrative Technician
Lynda Lara, Planning Intern

The City of Covina provides responsive municipal services and manages public resources to enhance the quality of life for our community.

Response to Comment Letter 26

Response 26-1: Comment noted. At this time the City of Covina has no comments regarding the Irwindale Materials Recovery and Transfer Station Project.

The City of Irwindale appreciates the City of Covina's participation in the public review process.

City of Duarte
Sixteen Hundred Huntington Drive, Duarte, California 91010-2592
Tel 626-357-7931 FAX 626-358-0018 www.accessduarte.com

Ms. Paula Kelly, Senior Planner
The City of Irwindale Planning Department
5050 North Irwindale Avenue
Irwindale, CA, 91076

Comment Letter 27

Dear Ms. Kelly:

On behalf of the City of Duarte ("Duarte"), we have reviewed the Materials Recovery Facility Draft Environmental Impact Report ("MRF-DEIR") for the project entitled "Materials Recovery Facility and Transfer Station Project" ("Project"). The Project is characterized by the change in zone from Heavy Manufacturing to Planned Development Overlay, approximately 2.84 acres in size, within Irwindale, CA and located east of the 605 Freeway. Transportation of materials would involve up to 6,000 tons leaving the Project site and transferring said materials to various sites throughout the region.

Our review of the Draft EIR reveals that while potential TMDL's, chemicals and other various materials have been identified as potential pollutants, there is a lack of methodology behind being able to monitor for those materials despite the project projecting less than significant impact. More specifically, the Draft EIR does not include any of the following: 1

- Methodology for monitoring pollutants near the project site both before and after completion of the proposed project;
- Impact analysis of BMP's whether small or large scale on preventing potential pollutants into the municipal storm-water system; 2
- Methodology and analysis of all potential scenarios in case of contributing pollutants into the municipal storm-water system

The City of Duarte is requesting that the above referenced bullets be analyzed and incorporated into the FEIR. 3

Duarte concurs with the draft finding that the Reduced Tonnage Option is the preferred Environmental option and represents the option with the least environmental impacts; since this option has less traffic impact air quality impacts will be reduced. Thank you for your careful consideration of these comments. Please contact me directly if you have any questions concerning the matters addressed in this letter.

Sincerely,

Alex Tachiki
Community Development Intern

Response to Comment Letter 27

Response 27-1: These comments are substantially the same as comments submitted May 15, 2014. Please refer to Response 10-1.

Response 27-2: These comments are substantially the same as comments submitted May 15, 2014. Please refer to Response 10-2.

Response 27-3: Comment noted.

The City of Irwindale appreciates the City of Duarte's participation in the public review process.

REMY | MOOSE | MANLEY
LLP

Andrea K. Leisy
aleisy@rmmenvirolaw.com

September 22, 2014

Comment Letter 28

VIA ELECTRONIC & REGULAR MAIL

Paula Kelly
Senior Planner
City of Irwindale Planning Department
5050 North Irwindale Avenue
Irwindale, CA 91706
paulakelly@ci.irwindale.ca.us

Re: Comments on the Revised Draft Environmental Impact Report Prepared for the Irwindale Materials Recovery Facility and Transfer Station (MRF/TS) Project (SCH No. 2013051029)

Dear Ms. Kelly:

We submit this letter on behalf of our clients: (i) Azusa Land Reclamation, Inc. (ALRI); and (ii) USA Waste of California, Inc. (doing business as (dba) Nu-way Arrow Reclamation, Inc.) (collectively referred to as "Waste"), regarding the adequacy of the Revised Draft Environmental Impact Report (DEIR) prepared by the City of Irwindale (City) pursuant to the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.; Cal. Code Regs., tit. 14, § 15000 et seq. (CEQA Guidelines)) for the proposed Irwindale Materials Recovery Facility and Transfer Station Project (Project). 1

Although improved, much of the Revised DEIR's analysis and conclusions, particularly with respect to air quality and traffic, remain unsupported by substantial evidence and therefore inadequate under CEQA. To the extent the Revised DEIR chapters do not reflect additional revisions made in response to comments regarding the unidentified and unmitigated significant adverse impacts of the Project, previously received on the Draft EIR, we hereby incorporate by reference our comments submitted on May 16, 2014, including the comments of MRO Engineers which were attached. We offer the following additional comments for the City's consideration, as lead agency, and for the consideration of responsible and trustee agencies who also have permitting authority over the Project and who must comply with CEQA.

/ / /

/ / /

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I. The Revised DEIR Must Consider the Potentially Significant Adverse Environmental Effects from the "Whole of the Project" including the City-Wide Zoning Code Amendment.

2

The Project includes a Citywide Zoning Ordinance Amendment to permit MRF/TS uses in the M-2 zone with approval of a development agreement. (RDEIR, p. 2.0-21.) If adopted as proposed, the zoning ordinance amendment may result in potentially significant adverse environmental impacts beyond the proposed project site at issue. Because the "whole of the project" includes the zoning amendment to allow MRF/TS land uses within the M-2 zone, the EIR must consider - at least programmatically - the potentially significant adverse effects that could result throughout the City in the M-2 zone from, for example, cumulative traffic and air quality impacts from additional MRF/TS uses. (See Pub. Resources Code, § 21080, subd. (a) [CEQA applies to discretionary projects which involve "the enactment and amendment of zoning ordinances,"]; CEQA Guidelines, § 15378 ["Project" defined to include "enactment and amendment of zoning ordinances"]; see also Guidelines, §§ 15151, 15146.)

The City's 2008 General Plan Update and related EIR do not appear to include this information. The EIR at issue also omits any analysis of potential effects from the zoning ordinance amendment beyond the proposed Project. (See *City of Carmel-By-The-Sea v. Bd. Of Supervisors* (1986) 183 Cal.App.3d 229, 243-246 [requiring an EIR to consider potential noise, pollution and traffic impacts from adoption of a zoning ordinance]; *Christward Ministry v. Super. Ct.* (1986) 184 Cal.App.3d 180, 185-195 [rejecting city's argument that a general plan amendment creating a solid waste facilities designation did not require an EIR because the amendment required approval of a special use permit in the future when projects were proposed, reasoning the amendment was a "necessary first step" toward the eventual siting of the "unknown" and "uncertain-to-occur" future projects which needed to be analyzed in an EIR prior to the approval of the amendment; "[u]nder the City's argument, an EIR would never be required for a general plan amendment so long as somewhere down the road an EIR was required. That is not the law"]; cf. *San Diego Citizenry Group v. County of San Diego* (2013) 219 Cal.App.4th 1, 21 [upholding EIR for zoning ordinance amendment allowing boutique wineries as a by-right use after engaging in good faith analysis of potentially significance adverse secondary effects].)

If the City wishes to adopt the City-wide zoning ordinance amendment to allow MRF/TS uses in the M-2 zone it must also first identify and analyze the potentially significant adverse environmental effects that could result from the zoning amendment (e.g., to traffic, air quality, greenhouse gases), at least at a programmatic level. Please identify where this analysis is available or if the City plans on conducting the additional analysis and, if not, why not?

Lastly, please clarify whether the proposed Project meets the City General Plan maximum floor area ratio (FAR) of 1.0 to 1.0 for uses within the M-2 zones. (See 2020 General Plan, pp. 40, 41 (Table 2-7).)

II. The Revised DEIR Continues to Assume a Flawed 2011 "Estimated" Baseline - versus Actual Existing Conditions at the time of the NOP (2013) - and Therefore Fails to Identify and Mitigate all of the Significant Adverse Traffic Impacts of the Project.

3

As explained in our May 16th letter and the May 1st letter from MRO Engineers, the Draft EIR improperly relies on 2011 baseline data (as opposed to conditions existing at the time of the May 2013 Notice of Preparation (NOP)), and applies across the board growth factor estimates to derive 2013 guesstimated conditions – no matter the intersection or roadway locations. The Revised DEIR does not correct this fundamental error which continues to skew the analysis throughout the traffic section.

The EIR is required to use actual existing conditions at the time of the NOP as the baseline. (CEQA Guidelines, § 15125.) The significance of a project's impacts cannot be measured unless the environmental document "first establishes the actual physical conditions on the property." (*Save Our Peninsula Committee v. Monterey County Bd. of Supervisors* (2001) 87 Cal.App.4th 99, 125.) Therefore, generally, the "baseline determination is the first rather than the last step in the environmental review process." (*Ibid.*)

4

MRO peer reviewed the traffic analysis and technical study in the Revised DEIR. A true and correct copy of MRO's comments on the Revised DEIR are incorporated by reference herein and attached to this letter as Attachment A.[1] The vast majority of MRO's comments on the Draft EIR were, disappointingly, ignored in the revised analysis.

Not only were our collective comments ignored, the City also continues to disregard its own Policy Guidelines for Traffic Impact Reports (August 20, 2004), including by refusing to identify the actual existing 2013 baseline conditions and by refusing to use the latest available traffic models. (See Attachment A; see also Attachment B [Policy Guidelines], at pp. 1-2 [Department of Public Works *shall review* traffic studies and reports based on the guidelines presented herewith], and pp. 10-11 [requiring use of *existing conditions, peak* morning and evening conditions and should be collected *while school is in session*].) The revised traffic analysis still does not comply with the City's own Guidelines.

In addition to the reasons explained by MRO as to why the traffic analysis understates the existing baseline conditions (e.g., because counts were not taken on a school day during peak periods etc.), the 2011 baseline information also appears, for example, to omit traffic counts from other projects approved around the same time, including addendum 3 to the Vulcan Materials Mining and Reclamation Final EIR (SCH

[1]/ As with our comments on the Draft EIR, the City must treat the comments of MRO Engineers as additional comments received on the Revised DEIR for which a good faith response is also required.

No. 2006051107 (NOD posted Oct. 28, 2011)), or Azusa's TS/MRF on W. Gladstone Street, which began operating in 2013. Additionally, Dispatch Trucking trucks servicing activities at the Manning Pit have been observed traveling east and west on both Arrow Highway and Gladstone St. in breach of Section 3.5 (Truck Routes) in the City of Irwindale's Agreement with Dispatch Trucking. (E-mail from Brent Anderson to Edgar Rojas (Aug. 13, 2014) [incorporated by reference].) Had the City used existing 2013 baseline conditions it could have shown accurate traffic counts at intersections affected by the Azusa TS/MRF, Vulcan and the Manning Pit activities. Given these circumstances, applying a uniform static growth factor to 2011 conditions to guess the 2013 conditions was an abuse of discretion. 4 con't

The City's continued misguided approach also runs afoul of accepted practice within the transportation profession. (See Attachment A; see also Attachment C [true and correct excerpts from the ITE Transportation Impact Analyses for Site Development and from the Trip Generation Handbook (2nd Edition)]; Attachment D [Caltrans Guide for the Preparation of Traffic Impact Studies]; Attachment E [true and correct excerpts from the 2010 LAMTA Congestion Management Program]; Attachment F [true and correct excerpts from the updated 2010 Highway Capacity Model (HCM)].)

Why didn't the City collect existing baseline data from 2013? And use the updated HCM? We find the City and consultant's disregard of the fundamental flaws in the traffic study puzzling.

A. The Revised DEIR Must Impose Feasible and Enforceable Mitigation to Substantially Lessen the Significant and Unavoidable Traffic Impacts of the Project.

5

The Revised DEIR proposes MM T-1 and MM T-2 to address impacts under Threshold T-2 associated with increases in levels of service and queuing at certain intersections, mainline segments and ramp junctions. (RDEIR, pp. 3.12-68 to 3.12-92.) Will the improvements at I-605 NB Off-Ramp (NS)/Live Oak Avenue (EW) (MM T-1) and at I-605 SB Off-Ramp (NS)/Arrow Highway (EW) intersection (MM T-2) be completed prior to commencement of operations? As the other measures? If not, when must the improvements be completed? The measures are vague on this point.

Moreover, the Revised DEIR neglects to disclose the cost of the improvements required as part of MM T-1 and MM T-2 and how those costs would be paid. Will the applicant pay the full cost? Or is the applicant only being required to pay its fair share? If fair share, how has that amount been calculated? Did the City use the fair share calculations included in the Caltrans Guide for the Preparation of Traffic Impact Studies for significant impacts (direct and cumulative) to Caltrans facilities? If not, why not?

As we noted in our earlier comments, neither the DEIR nor the City's guidelines specify whether an adopted fee plan or program exists. Thus, it is unclear whether the

identified traffic improvements would be constructed even if Caltrans approved the necessary encroachment permit(s). 5 con't

B. The Revised DEIR Fails to Identify and Address Potentially Significant Impacts Resulting from Implementation of Improvements Required from Mitigation. 6

The Revised DEIR's discussion of the potential traffic and air quality impacts associated with implementing MM T-1 and MM T-2 is inadequate for two main reasons. First, the Revised DEIR appears to improperly defer mitigation for potential construction traffic impacts by stating that "[a]s for all roadway improvement projects subject to Caltrans participation and approval, these effects will be addressed in implementation of a Traffic Management Plan . . . ." (RDEIR, p. 3.12-69.) The EIR does not include a mitigation measure requiring that the City work with Caltrans to prepare a Traffic Management Plan and it does not appear that such a plan that is applicable to the Project already exists. It is also not clear how a Traffic Management Plan would address air emissions as the Revised DEIR suggests. What are the performance standards required as part of a Traffic Management Plan? The traffic impacts associated with construction of MM T-1 and MM T-2 have not been addressed.

It is also not clear whether a "Traffic Management Plan" in this context is the same as the "Traffic Mitigation Program" discussed starting on page 3.12-97. As we noted earlier, an adopted fee program or other mechanism for the payment of mitigation costs does not appear to exist.

Second, the Revised DEIR fails to support with substantial evidence that air emissions associated with construction of MM T-1 and MM T-2 would be less than significant. The Revised DEIR concludes: "Air emissions related to construction equipment and construction-related traffic will be short term (construction period only), and are a relatively minor component of the regional air emissions attributable to the Live Oak Avenue / I-605 traffic flow conditions that the mitigation measures will partially address." (RDEIR, p. 3.12-69.) What will the short term construction related air emission impacts be? The Revised DEIR appears not to analyze the short-term impacts associated with construction of traffic improvements needed for the Project, and appears to partly rely on the short-term nature of impacts to support a less-than-significant conclusion.

Whether construction emissions are a small part of the emissions associated with the Live Oak Avenue / I-605 traffic flow conditions also do not support a less-than-significant impact conclusion because traffic flow emissions are distinct from construction related air quality emissions. Even temporary impacts may result in potentially significant environmental impacts, which must be avoided or reduced to the extent feasible. It is also not clear whether the Revised DEIR considered greenhouse gas (GHG) emissions associated with construction equipment operation for these improvements. Please

quantify the construction related emissions to GHG, nitrogen oxide (NOx), reactive organic gases (ROG), PM10 and 2.5. 6 con't

Furthermore, the Revised DEIR states: "it is concluded that although construction of the required improvements to mitigate identified traffic improvements of the Proposed MRF/TS project will have some short term impacts, they are less than significant and short term effects that [*sic*] are outweighed by the benefits of the traffic improvements." (RDEIR, p. 3.12-69.) As noted already, the Revised DEIR does not support its conclusion that construction emissions associated with implementation of the proposed traffic mitigation will be less than significant. The Revised DEIR also appears to rely on the benefits of traffic mitigation to support the significance conclusion, and thus appears to engage in a balancing of interests that is properly left in the hands of the City's decision-makers, not the EIR preparers.

In addition to the potentially significant traffic and air quality impacts that would be realized from implementation of the mitigation measures, the Revised DEIR also does not consider whether any noise impacts associated with construction activities required for MM T-1 and MM T-2 would occur.

C. Other Specific Inaccuracies and Omissions in the Revised DEIR Relating to the Traffic Analysis.

3.12-49	The last sentence states that an average trip distance of 9.1 miles was used for the Project Variant. The Revised DEIR does not explain the basis for this trip distance assumption. Please clarify how 9.1 miles was identified?	7
3.12-98	The Revised DEIR states that the City's traffic consultant identified the potential for conflicting turning movements at Project driveways, and proposed mitigation to address these impacts. Would the Project Variant also pose conflicting turning movements that would require mitigation? Please explain.	8
Table 3-1 Cumulative Project List	The Revised DEIR omits CleanTech Environmental Inc.'s proposed used oil recycling and designated hazardous waste collection facility from the cumulative impacts analysis. DTSC first released a negative declaration for the project on November 21, 2011 (SCH No. 2011111065). An NOP for preparation of an EIR was released on December 27, 2013. The Draft EIR was released for review and comment on August 11, 2014. The project would be located at 5820 Martin Road within the City of Irwindale and would allow the processing of up to 1,500,000 gallons of used oil per month. Other designated hazardous wastes that would be allowed include antifreeze, non-RCRA wastewater and oil contaminated solid waste. Two new truck unloading/loading bays are also included.	9

	Given the location of the facility (at Martin Road and First Street), trucks would travel to and from the site using Irwindale to/from the 210 freeway, or to/from the 605 using Arrow Highway and N. Irwindale passing the proposed Project site at Arrow and Live Oak (see Attachment G [google map of area roadways].) Please clarify how many additional trips would occur from the CleanTech project on Irwindale, Arrow and at the on and off-ramps for I-605 and I-210 and how these trips were considered in the cumulative impacts analysis.

9 con't

III. The Revised DEIR Fails to Adequately Identify and Mitigate, to the Extent Feasible, the Significant Adverse Air Quality, Greenhouse Gas, and Health Risk Impacts that Would Result from the Project if Approved.

10

The Revised DEIR continues to omit information about the Project and the air quality, GHG, and health risk impacts that would result should the Project be approved. The DEIR also fails to provide adequate mitigation measures to avoid or substantially lessen the significance adverse impacts of the Project to the extent feasible.

A. The Revised DEIR Applies an Incorrect Significance Threshold and Fails to Analyze Consistency with CARB-Recommended Strategies to Reduce GHG Emissions.

11

The Revised DEIR inappropriately applies the South Coast Air Quality Management District's (SCAQMD) interim screening thresholds of 10,000 metric tons of carbon dioxide equivalent (MT CO_2e) per year and the Appendix G significance thresholds. (RDEIR, p. 3.3-67.) As explained in our prior comments, the DEIR should have assessed the significance of the Project's GHG emissions based on consistency with the GHG reduction goals mandated by Assembly Bill (AB) 32 and now, the First Update to the Climate Change Scoping Plan (May 2014),[2] and by comparing the Project's GHG emissions to the Project's emissions if it were built under a Business as Usual (BAU) approach.

Instead, the Revised DEIR applies the SCAQMD's interim GHG significance thresholds from December 2008. The SCAQMD's interim guidance identified the screening threshold of 10,000 MT CO_2e per year for *stationary* industrial sources *where SCAQMD is the lead agency*. SCAQMD staff's October 2008 Draft Guidance Document referred to industrial projects as typically containing "stationary source equipment whose emissions are largely permitted or regulated by the SCAQMD", as opposed to "residential, commercial (may also include industrial) building structures that attract or generate mobile source emissions." (SCAQMD Draft Guidance Document,

2/ Incorporated by reference into the record of proceedings and available at http://www.arb.ca.gov/cc/scopingplan/document/updatedscopingplan2013.htm

pp. 3-11 - 3-12 [the analysis establishing the 10,000 MT CO_2e/year threshold did not include "other possible GHG pollutants such as methane, N2O; a life-cycle analysis; mobile sources; or indirect electricity consumption"].) The background discussion in the December 2008 SCAQMD Board meeting agenda also referenced the 10,000 MT CO_2e per year screening threshold as applying to *stationary industrial sources*. (SCAQMD Board Agenda, Item No. 31, Dec. 5, 2008, incorporated by reference herein and available at http://www3.aqmd.gov/hb/2008/December/081231a.htm.) 11 con't

The Revised DEIR opines that "[a]lthough the SCAQMD's 10,000 MT CO_2e initially applied to stationary sources, discussions at the last GHG working group meeting indicated that this threshold would be utilized for all industrial related emissions that include both stationary and mobile sources." (RDEIR, p. 3.3-22.) Discussions at a working group meeting do not support application of the threshold to the proposed Project.

Rather, the DEIR should have analyzed whether the Project would be consistent the California Air Resources Board (CARB)-recommended strategies, including compliance with the reductions in BAU levels identified in the AB 32 Updated Scoping Plan, and the amount of reductions that the Project would achieve with implementation of the applicable strategies. [3] Compliance with the BAU reduction goals identified through AB 32 and the Scoping Plan as the threshold of significance has been upheld by the courts. (*Citizens for Responsible Equitable Environmental Development v. City of Chula Vista* (2011) 197 Cal.App.4th 327, 336; cf. *Friends of Oroville v. City of Oroville* (2013) 219 Cal.App.4th 832, 841.) Application of the 10,000 MT CO2e threshold has not been applied or upheld by the courts, particularly for private projects for which there will be mobile - rather than stationary - source emissions. Please include such authority in the response to this comment if the City is aware of any.

Other recent GHG analyses conducted for projects within the South Coast Air Basin have rejected using the 10,000 MT CO_2e per year threshold to projects like the one at issue. In fact, Urban Crossroads—the same consulting firm who prepared the proposed Project's traffic analysis—declined to apply this threshold (10,000 MT CO_2e) in its GHG analysis for a proposed warehouse facility in the City of Moreno Valley. The Urban Crossroads's April 21, 2014 GHG analysis gave this summary: 12

> Initially, SCAQMD staff presented the working group with a significance threshold that could be applied to various types of projects—residential; non-residential; industrial; etc. However, the threshold is still under development. In December 2008, staff

[3]/ The Revised DEIR makes no mention of how the Project would be consistent with the AB 32 reduction measures related to transportation even though the Revised DEIR states that the "primary source of emissions associated with the construction and operation of the project would occur from vehicles . . . ." (RDEIR, p. 3.3-66.)

> presented the SCAQMD Governing Board with a significance threshold for stationary source projects where it is the lead agency. This threshold uses a tiered approach to determine a project's significance, with 10,000 metric tons of carbon dioxide (MTCO2e) as a screening numerical threshold for stationary sources. More importantly it should be noted that when setting the 10,000 MTCO2e threshold, the SCAQMD did not consider mobile sources (vehicular travel), rather the threshold is based mainly on stationary source generators such as boilers, refineries, power plants, etc. Therefore it would be misleading to apply a threshold that was developed without consideration for mobile sources to a Project where the majority of emissions are related to mobile sources. Thus there is no SCAQMD threshold that can be applied to this Project.

12 con't

(First Nandina Logistics Center Greenhouse Gas Analysis, p. 26, emphasis added (Attachment H).)

Accordingly, the City of Moreno Valley determined that the proposed warehouse project would be analyzed against the AB 32 BAU approach. (Attachment H, p. 38, p. 46-14 ["SCAQMD's draft screening threshold is not applicable to the Project"], 4.6-15 to 4.6-16.)

Unlike the First Nandina warehouse project, the BAU approach was not used to analyze the potentially significant adverse environmental effects of the Project from GHG emissions. The DEIR and Revised DEIR give no explanation why this approach was not followed. Without conducting this analysis the City is unable to determine whether the Project will comply with AB 32's target BAU reductions, or what additional GHG emissions require mitigation. (See *Friends of Oroville v. City of Oroville* (2013) 219 Cal.App.4th 832, 842.) Instead, the applicant essentially receives a 10,000 MT CO_2e "credit" off the GHG emissions of the Project that would otherwise require additional mitigation if the analysis had followed a BAU analysis consistent with established case law.

Please quantify what the GHG emissions of the Project would be under BAU, then identify and quantify how the Project's compliance with adopted regulations, design features and/or mitigation measures would reduce GHG emissions to 29% below BAU (as identified in the adopted First Update to the Climate Change Scoping Plan (2014)), or below BAU (as identified in the First Update to the Scoping Plan) to ensure the Project will not conflict with AB 32 and consistent with CEQA. (*Friends of Oroville v. City of Oroville (*2013) 219 Cal.App.4th 832.)

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B. The Revised DEIR Fails to Include an Adequate Analysis and Mitigation of GHG Impacts Under Threshold AQ-7.

13

The Revised DEIR's analysis to determine whether the Project would conflict with the State's goals for reducing GHG emissions under Threshold AQ-7 is inadequate and not supported by substantial evidence. (RDEIR, p. 3.3-67.) First, the Revised DEIR makes the cursory statement that "the project does not pose any apparent conflict with the CARB recommended actions[.]" (RDEIR, p. 3.3-68.) Mere unsupported belief is not substantial evidence of a less-than-significant or no impact. (CEQA Guidelines, § 15384, subd. (a) [substantial evidence does not include "[a]rgument, speculation, unsubstantiated opinion or narrative"].) The Revised DEIR, moreover, does not specify which CARB-recommended actions apply to the Project and thus would assist in reducing GHG emissions. It is also unclear how much GHG reduction would occur with implementation of the unspecified CARB measures.

14

Second, as explained above, the Revised DEIR incorrectly relies on the 10,000 MT CO_2e per year GHG threshold of significance for stationary sources. Notwithstanding the inappropriate significance threshold, the GHG analysis only presents the total estimate of GHG emissions for the construction and operation phases—with the amount of construction emissions amortized over a 30 year period. (RDEIR, p. 3.3-67.) Thus, the City has not accounted for the direct and indirect GHG emissions from construction and operation activities, as required by the Appendix G and AB 32. It is also not readily apparent whether the calculations are included in the supporting files for Appendix C (Air Quality). The City may not bury relevant information in the appendices or reports. (*Vineyard Area Citizens for Responsible Growth v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 442 [information scattered in an EIR appendix or report is not a substitute for good faith reasoned analysis].)

15

Third, because the Revised DEIR does not analyze the Project's GHG emissions using the framework of AB 32, there is no substantial evidence to show that the Project would not conflict with any applicable plan, policy, or regulation adopted to reduce GHG emissions (e.g. AB 32). Moreover, the Revised DEIR makes the unsupported statement that "design features and regional efficiencies would reduce GHG emissions below what is stated in this analysis." (RDEIR, p. 3.3-69.) The City must prove up, and quantify, how the design features would reduce the GHG emissions. The Revised DEIR lacks this information. (See e.g., *Sierra Club v. County of Fresno* (2014) 226 Cal.App.4th 704, 751-752 [agency provided no explanation of how mitigation would substantially reduce air quality impacts and thus agency did not satisfy CEQA's disclosure requirements].) It is not even clear to which design features and regional efficiencies the City refers and whether those features are enforceable. (See *Lotus v. Dept. of Transportation* (2014) 223 Cal.App.4th 645 [Caltrans EIR invalidated for failing to identify potentially significant impacts from roadway improvement project and compounded the error by incorporating mitigation measures into the project description and characterizing them as "part of the project"—simply stating that there will be no

significant impacts because the project incorporates design features or 'special construction techniques' is not adequate or permissible].)

15 con't

C. The Revised DEIR Includes Inadequate GHG Mitigation Measures.

MM AQ-22 remains inadequate mitigation, in part, because it does not identify the adopted credit offset program from which the applicant must acquire the offsets, does not include an "annual" due date or who will enforce the measure. In this regard, the DEIR violates the City's own General Plan policy requiring that, "[i]n compliance with CEQA, the City shall also assign responsibilities for the verification of the implementation of mitigation measures that may be recommended as part of the environmental review process." (Irwindale 2020 General Plan, p. 39.) The Revised DEIR also does not explain how the offsets would ensure actual reductions in GHG emissions. The amount of offset credits must also be revised to identify the amount of offsets needed to ensure BAU reductions consistent with the First Update to the Scoping Plan and AB 32, rather than assuming the 10,000 MT threshold as a reduction. (See RDEIR, pp. 3.3-68, ES-36.) The mitigation measure also fails to state who will decide and how it will be decided as to which mitigation option is taken, thus lending to the vagueness of the measure.

16

MM AQ-22 should specify that GHG reductions will follow and be certified pursuant to the requirements in SCAQMD's Rules 2700-2702 addressing GHG emissions. The Revised DEIR should also discuss these rules as part of the regulatory setting.

Finally, MM AQ-24 fails to specify when and how compliance with Title 24 and CAPCOA's GHG Registry shall be assured. (*Sierra Club v. County of Fresno, supra,* 226 Cal.App.4th at p. 750 ["uncertainty about enforcement arises from the fact that the provisions do not clearly state who is to do what and when that action must be taken"]; see also Irwindale 2020 General Plan, p. 39 ["City shall also assign responsibilities for the verification of the implementation of mitigation measures"].) MM AQ-24 should be revised to further specify that <u>all</u> applicable provisions of Title 24 shall apply to the Project.

17

D. The Revised DEIR Fails to Correlate Air Pollutant Emissions to Human Health Impacts.

The Revised DEIR fails to adequately discuss how the air pollutants emitted by the Project (e.g. from PM and TACs) would impact public health. While the Revised DEIR discussed the Project's maximum incremental cancer risks, the lack of analysis of ROG and NOx emissions on human health is particularly concerning because they were identified as significant and unavoidable air quality impacts. The Revised DEIR includes Table 3.3-15 showing the estimated daily mitigated Project emissions for ROG and NOx, which exceed SCAQMD thresholds of significance. But the Revised DEIR does not

18

correlate the Project's significant ROG and NOx emissions shown in the table to adverse human health impacts expected from those emissions.

18 con't

Moreover, it is not clear what impact the Project's emissions will have on the days of attainment per year. Failing to provide this information presents an inadequate EIR under CEQA. (*Sierra Club v. County of Fresno, supra,* 226 Cal.App.4th at pp. 744-745.)

E. The Revised DEIR Fails to Provide Any Feasible Mitigation Measures to Reduce Cumulative Air Quality Impacts.

19

Waste reiterates its previous comments regarding the City's duty to mitigate significant impacts to the extent feasible. For the same reasons as previously explained, the Revised DEIR's discussion of cumulative air quality impacts remains insufficient and fails to apply any feasible mitigation measures to the significant and unavoidable cumulative impact associated with operation ozone precursors. CEQA requires mitigation to the extent feasible, even if such mitigation would not reduce the impact to less than significant.

F. Additional Comments Regarding the Revised DEIR's Air Quality, GHG and Health Risk Analysis.

Page No.	Comment:	
3.3-25	"Table 3.3-4" appears to have been deleted from the header of the second table (Ambient Air Quality Standards for Criteria Pollutants) on this page.	20
3.3-27	Table 3.3-6 (Construction Equipment) includes columns for "HP" and "Load Factor." These columns should be explained, including the relevancy of this information, such as in a footnote.	21
3.3-27 and 3.3-28	Tables 3.3-5 and 3.3-6 show that some demolition activities will occur. The first paragraph on page 3.3-28 states that the "project site is clear of structures" and thus "minimal demolition would be required." If the project site has no structures, why is any demolition required? Have emissions, and their potential health impacts, from demolition activities be adequately analyzed in the DEIR? Page 3.3-28 states that "minimal site preparation and grading would be required." But the same paragraph also says that 15,000 cubic yards of soil would be exported and that a considerable number of haul truck trips (1,875 trips) would be required. Based on the large amount of exported soil and truck trips associated with grading, it is misleading to claim that site grading would be minimal. In any event, please identify	22

	where these trips were included in the air quality and GHG analysis. Page 3.3-28 also states: "Site preparation would consist of land clearing and grubbing, haul truck trips would likely be required to export the materials from the project site." This sentence seems to indicate that haul truck trips would occur as a result of site preparation activities. Yet, Table 3.3-7 (Construction Trips and Trip Lengths) shows that there are zero haul truck trips associated with site preparation activities. Please clarify and reconcile this information. Table 3.3-7 includes a column for haul trip lengths in miles. All of the phases state that haul trip lengths will be 20 miles. Where will the haul trips be going?	22 con't
3.3-30 and 3.3-31	Table 3.3-9 and Table 3.3-10 have been revised to show that the project construction emissions for 2016 are less than originally calculated (although we note that the significance determinations have not changed). What is the explanation for the decreases?	23
3.3-31	The first two paragraphs on page 3.3-31 state the fugitive dust control efficiencies that would be realized as determined by CalEEMod. Please specify which dust control measures would lead to these efficiencies. The basis for the fugitive dust control efficiencies is unclear.	24
3.3-33	The City has deleted MM AQ-3 in the Revised DEIR. This mitigation measure required that "[t]he Construction Constructor shall ensure Construction be discontinued during second stage smog alerts." This measure should not be deleted and should further specify that all construction activities shall be discontinued during first and second stage smog alerts. Although MM AQ-7 (now AQ-5) requires that "[h]eavy equipment operations shall be discontinued during first and second stage smog alerts", MM AQ-7 (now AQ-5) does not expressly state that the mitigation is targeted to construction equipment. Either the City should include MM AQ-3 (as modified), or should modify MM AQ-7 (AQ-5 in the revised EIR) to specifically apply to construction equipment. The new MM AQ-7 (previously AQ-9) also only requires compliance with Tier 2 or better emission control devices for construction equipment. Why not Tier 3? This MM also appears to conflict with MM AQ-17 (previously AQ-18) which requires on-site off-road heavy duty equipment to meet Tier 3 standards (striking the "or higher") language. Tier 4 equipment is, however, commercially available and although more expensive is not infeasible. See http://www.cat.com/en_US/articles/solutions/acert-technology.html; http://www.cat.com/en_US/support/operations/technology/tier-4-	25

	technology.html The City has added MM AQ-8 in the Revised DEIR. MM AQ-8 is impermissibly vague, however, and fails to specify who shall develop the plan and when it must be adopted (e.g., the applicant, the City, or the construction contractor). The plan that will be developed under MM AQ-8 should also include haul trucks used for construction activities.	25 con't
3.3-30 and 3.3-34	The discussion of Threshold AQ-1 concludes that with mitigation, ROG emissions would be less than significant. Although the Revised DEIR suggests that MM AQ-10 and MM AQ-11 are targeted to address ROG emissions, the DEIR should expressly state which mitigation measures will reduce ROG emissions resulting from combustion and evaporative emissions.	26
3.3-36	The Revised DEIR states that "[t]he City has conservatively reduced those 4,360 tons per day of throughput (assumed in the Draft EIR), to 0 tons per day in the analysis . . . ." The Revised DEIR should clarify that the amount of 4,360 tons per day is the number of assumed existing truck trips that are no longer being considered as part of the baseline. Because the City deleted the discussion of the number of baseline trips, the significance of 4,360 tons per day is not clear.	27
3.3-38	The entirety of Table 3.3-13 (Estimated Daily Baseline Emissions from Project Operations) should be deleted. In the table, the particulate matter values under the total baseline conditions do not appear to be deleted even though the remainder of the table has been deleted. The last paragraph on page 3.3-38 lists the average travel distances for collection/roll-off trucks, self-haul trucks, and employees. These distances appear to be the distances from the point of origin to the proposed Project site; this information should be clarified. The DEIR also does not explain the basis for the travel distance assumptions, including the travel distance of 9.1 for the vehicles that will be parked off site under the Project Variant.	28
3.3-40 and 3.3-41-3.3-42	Table 3.3-13 and Table 3.3-14 should specify that the values are in pounds per day. The tables currently say "pounds" only. Table 3.3-13 (Estimated Daily Unmitigated Proposed Project Emissions from Project Operation) was revised to include lowered values of unmitigated project emissions. The reason for the lowered values is not apparent and should be explained. Table 3.3-14 (Estimated Daily Unmitigated Proposed Project Emissions	29

	from Project Variant) appears to include largely the same values for operational emissions under the Project. Page 3.3-42 also states that the unmitigated emissions for the Project and the Variant would be very similar. Under the Project variant, however, the applicant would be required to hire sub-hauler vendors for all transfer truck operations. Thus, the analysis does not appear to account for emissions associated with third-party transfer trucks driving to the Project site, as it should, presumably because these trucks would not be parked at the site. The Area Source Emissions discussion states that all of the operational emissions were calculated in the air quality study in Appendix C. Appendix C does not appear to include the emissions calculations, or even a summary of the total calculations. Although Appendix C includes emissions factors for certain vehicles, it does not appear to include emissions factors for collection trucks and vehicles associated with customers of the service station and deliveries (gas/food/beverage) needed to service the station. Nor does Appendix C appear to include emissions factors for the forklifts and lifts that will be used for project operation. The emissions are therefore understated.	29 con't
3.3-42	The Revised DEIR states that for the Project Variant, a travel distance of 9.1 miles was used for the transfer trucks that would be stored off site. The revised DEIR does not explain the basis for the assumption of 9.1 miles. Where would the transfer trucks be stored? The third paragraph states: "The regional efficiencies would reduce both criteria pollutants and GHG emissions below what is stated in this analysis because existing transfer trucks occur between an existing transfer station and landfill." This sentence should be deleted because the DEIR no longer assumes "relocated" emissions from existing truck trips as part of the baseline conditions. And as we stated in our previous comments, in some cases, the distance between the proposed Project and the receiving facility is actually longer than the distance between the existing facilities and the same final destinations.	30
3.3-43	MM AQ-17 has been modified such that it no longer requires *all* on-site off-road heavy duty equipment to meet US EPA Tier 3 standards. The mitigation measure appears to specify that only certain pieces of equipment must meet Tier 3 standards. Thus, the modification appears to have weakened the previous mitigation measure. Presumably the City believed the previous mitigation measure was feasible if it was included in the DEIR. This same comment applies to MM AQ-17 that is repeated on page 3.3-50. What evidence supports a finding of infeasibility for all on-site off-road	31

	equipment to meet Tier 3 standards? Also, now that Tier 4 equipment is available why is the City not requiring Tier 4 for on and off-site mobile equipment/haulers? For third-party haulers, has the City considered requiring Tier 4 as a condition of future hauling and construction contracts and if not why not?	31 con't
3.3-45	Table 3.3-15 (Estimated Daily Mitigated Proposed Project Emissions from Project Operations) should specify that the values represent pounds per day. The tables currently say "pounds" only. Most of the numbers in Table 3.3-15 have been revised. It is not clear why, in some cases, emissions are now much lower, such as NOx emission for self-haul trucks. Relatedly, it is also not clear why the revised table includes a significant increase for NOx emissions (e.g., on-site equipment emissions were 4.61 lbs/day, but was modified to 32.4 lbs/day). Please explain the reasons for the changes in mitigated project emissions. The Revised DEIR does not appear to include mitigated Project emissions numbers for the Project variant. The DEIR fails to adequately describe the impacts from the Project Variant with respect to air quality impacts in general and therefore provides an inadequate basis of environmental review should the City wish to adopt the Project Variant.	32
3.3-46	The Revised DEIR states that Rule 1193 will ensure that alternative fueled trucks will be added to the fleet as they become available. Alternatively fueled trucks are already commercially available. The duty to mitigate to the extent feasible under CEQA is a separate independent statutory duty of lead agencies. Thus, the City should require the applicant to use, and contract with third-parties to use, alternatively fueled trucks and equipment (e.g., electric, CNG, LNG). Please explain whether, and if so why, such measures were deemed to be infeasible.	33
3.3-48	The last paragraph on this page needs clarification. The last paragraph discusses how CO and NO_2 concentrations were analyzed for the purposes of determining whether pollutants were below the ambient air quality standards. The last paragraph states that maximum CO and NO_2 concentrations (as shown in Table 3.3-1) were reviewed. The last paragraph should specify whether this method was used for the analysis of both construction and operation emissions. The paragraph does not currently include this information. It is also not clear whether the maximum concentrations reflect the 1-hour or 8-hour levels in Table 3.3-1. The last paragraph also states that maximum CO and NO_2 concentrations were then added to maximum modeled concentrations for these pollutants. The DEIR neither includes nor explains the basis	34

	for the maximum modeled concentrations. Without this information is not clear whether the CO and NO_2 concentrations associated with the Project are accurate.	34 con't
3.3-49	The first full paragraph includes SO levels associated with construction activities, but it is not clear whether the levels include background concentrations. This same comment applies to the third paragraph. The third full paragraph should specify that it is discussing operational impacts. The fifth full paragraph should specify what ambient air quality standards are exceeded by the Project. The last full paragraph on this page appears to give the concentrations of NO_2 and PM_{10} after application of the mitigation measures, but this is not expressly stated. Please clarify.	35
3.3-50	The first sentence should specify that operation of the Project would result in significant air quality impacts. The revised DEIR proposes MM AQ-1 through MM AQ-18 to address CO, NOx, and PM_{10}. Please explain how these measures will lessen the CO, NOx, and PM_{10} emissions as some of the measures address ROG (such as MM AQ-12) and not the specifically aforementioned pollutants.	36
3.3-57	The second full paragraph discusses the maximum cancer risks from Project operation, and also states that the Project must adhere to MM AQ-1 through MM AQ-18 that have been designed to reduce cancer risks. MM AQ-1 through MM AQ-11 relate to mitigation of construction emissions. Please clarify how MM AQ-1 through MM AQ-11 are applicable to the cancer risks from operations. The first, second, and fourth paragraphs present values for the maximum incremental cancer risks during construction and operation activities as well as the maximum chronic hazard index. These values do not appear to be included in the Health Risk Assessment, but should be included. The source of these values is also not given, thus it is difficult to verify their accuracy.	37
3.3-68	The third paragraph refers to the maximum throughput of the baseline condition, which has already been deleted on page 3.3-35. The following sentence should be deleted: That is, estimated maximum throughput for the Baseline	38

	Condition is 4,360 tons per day (based on market share, waste amounts, and trip distances) but conservatively evaluated at 0 tons per day. As we noted in our previous comments, the City's assumption of baseline conditions is not supported by substantial evidence.

38

IV. The Revised DEIR's Alternatives Analysis Remains Inadequate.

Waste makes the comments below on the inadequacy of the Revised DEIR's alternatives analysis.

General	The alternatives analysis must clearly identify and quantify the impacts of project construction as opposed to operation under each alternative. For example, the modified Reduced Tonnage Capacity Alternative does not identify the construction impacts (e.g., to PM, ROG, Nox, GHG). Thus, it is unknown how the alternative compares to the Project's construction and operation phases, or that of other alternatives.
5.0-6	The third sentence (starting with "In addition, the Pit . . ." appears to end abruptly and is missing words. The missing words are likely to be "and independent environmental review", which was previously deleted.
5.0-23	The Reduced Tonnage Capacity Alternative has been modified to include a 25% reduction in tons per day (tpd) whereas the original alternative discussed an alternative project that would have a 56% tpd reduction in capacity. There does not appear to be any explanation for why this modified alternative proposes to accept more tpd than previously analyzed in the Draft EIR. Because the original DEIR analyzed a 56% reduction in tpd from the proposed Project, the City implicitly recognized that such a reduction was potentially feasible and would avoid or substantially lessen the significant adverse impacts of the Project. A greater reduction in tpd is therefore a viable alternative and should remain in the EIR for the City Council's consideration.
5.0-29	The Source-Separated MRF Alternative has been included in the DEIR as a potentially feasible alternative. The Revised DEIR's description of this newly added alternative is mostly a discussion of why a mixed-waste MRF (i.e., the proposed Project) is more feasible than a source-separated MRF rather than informing the public and decisionmakers about the alternative's ability to avoid or substantially lessen the significant impacts of the Project from, for example, the potential for fewer truck traffic trips

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	or air quality emissions. In doing so, the Revised DEIR appears to violate the purpose of an alternatives analysis, which is to present the public and the lead agency's decision-makers with a reasonable range of potentially feasible alternatives that will aid informed decision making and public participation. (CEQA Guidelines, § 15126.2.) Additionally, the Source-Separated MRF Alternative would be the same in size and capacity and thus would have the same impacts as the proposed Project. Thus, this new alternative would not be capable of avoiding or substantially lessening any of the proposed Project's significant environmental impacts. (CEQA Guidelines, § 15126.6.) An EIR must identify ways to mitigate or avoid the significant effects that the project may have on the environment. (Pub. Resources Code, § 21002.1, subds. (a), (b); CEQA Guidelines, § 15126.6.) Including this new alternative does not fix the DEIR's lack of presenting a reasonable range of alternatives. (CEQA Guidelines, § 15126.2, subd. (f).)

42 con't

Please provide me with a copy of all future public notices issued in relation to the proposed Project, including notices of any future Planning Commission and City Council hearings, as well as a copy of any Notice of Determination (NOD) filed pursuant to CEQA.

43

Lastly, please also provide me with copies of the comment letters received by the City on the Revised Draft EIR, excluding this comment letter. Thank you in advance for your continued cooperation.

Very truly yours,

Andrea K. Leisy

Encls.
cc: Ms. Laura Nieto, City Clerk (lnieto@ci.irwindale.ca.us)

Attachment A

Letter from MRO Engineers

M R O
ENGINEERS

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August 19, 2014

Ms. Jeannie Lee
Remy Moose Manley LLP
555 Capitol Mall, Suite 800
Sacramento, California 95814

Subject: ***Irwindale Materials Recovery Facility and Transfer Station Project***
Review of Recirculated Draft Environmental Impact Report
"Traffic Generation and Circulation" Analysis

Dear Ms. Lee:

MRO Engineers, Inc., has completed a review of the "Traffic Generation and Circulation" analysis presented in the Recirculated Draft Environmental Impact Report (RDEIR) for the proposed Irwindale Materials Recovery Facility and Transfer Station project in Irwindale, California. The RDEIR was prepared by the City of Irwindale in an attempt to address issues raised during the 45-day comment period on the April 2014 Draft Environmental Impact Report (DEIR) for the project. 44

As noted in the "Notice of Completion/Notice of Availability" for the RDEIR, revisions were made to DEIR Chapter 3.12 – Traffic Generation and Circulation, which was based on a traffic impact analysis prepared by Urban Crossroads dated February 27, 2014. Our review of the RDEIR reveals that very few substantial changes were made to Chapter 3.12 and, further, no changes whatsoever were made to the Urban Crossroads analysis. We find this to be puzzling, given the nature and extent of the comments presented in our May 1, 2014 comment letter.

Unresolved Traffic Analysis Issues

Our review of the DEIR "Traffic Generation and Circulation" analysis revealed a number of deficiencies in that study that were not addressed in the RDEIR. Those unresolved issues are summarized below.

1. ***Traffic Volume Data*** – As described in our May 1, 2014 comment letter, the traffic volume data employed in the traffic impact analysis suffers from the following deficiencies:

   - The intersection turning movement counts on which the analysis was based were conducted over three years ago (in June 2011), which violates the City of Irwindale *Policy Guidelines for Traffic Impact Reports*, the Los Angeles County Metropolitan Transportation Authority's *2010 Congestion Management Program*, and accepted practice within the traffic engineering community, as stated in the Institute of Transportation Engineers (ITE) document, *Transportation Impact Analyses for Site Development*. All of those sources require that the traffic counts be less than one year old.

   - The traffic counts were not conducted on a school day, as required by the City of Irwindale *Policy Guidelines for Traffic Impact Reports*.

   - The process used to adjust the year 2011 AM peak hour traffic counts to represent year 2013 values was flawed in that application of an overall growth factor to all study intersections is inappropriate and results in inaccurate and misleading peak-hour traffic volume estimates.

As we noted, in the AM peak hour one study location experienced almost nine times more growth than is represented by the adjustment factor used in the traffic analysis, and several others increased at a rate that was six-to-seven times higher than the growth factor employed in the analysis. 44 con't

- The PM peak hour traffic counts were unadjusted from the year 2011 values, even though the DEIR documented growth of up to eight percent at certain study locations.
- Because the future year traffic volumes used in the study were directly based on the inaccurate existing conditions volumes, the deficiencies in the traffic data affect all of the analysis scenarios addressed in the study.

The only remedy to this substantial deficiency is to collect new, up-to-date traffic data that accurately reflects traffic operations in the study area at the time of study initiation and beyond. Instead, the RDEIR simply states that the traffic volume adjustment process documented in the DEIR, ". . . was approved by the City Engineer in consultation with the Traffic Consultant." Unfortunately, approval by that individual does not alter the facts summarized above and presented in greater detail in our May 1 letter.

2. ***Traffic Projections*** – The traffic projections for the years 2016 and 2035 are also deficient, for the following reasons: 45

   - They are based on invalid existing conditions data, as described above.
   - The growth factors for the two time periods are inconsistent, which results in illogical and unrealistic estimates of long-term (year 2035) traffic volumes. Briefly, the year 2016 traffic volumes were derived using the 2.0% per year factor called for in the City of Irwindale traffic study guidelines. From the year 2016 to the year 2035, however, the growth factor was much lower (i.e., 0.24% per year), thereby violating the City's guidelines and raising substantial questions as to the validity of the traffic forecasts.

   The RDEIR completely ignores the shortcomings of the future year traffic projections. Consequently, we continue to wonder, why would traffic grow by 2.0 percent between 2015 and 2016, but by only 0.24 percent from 2016 until 2017? And if the 2.0 percent per year rate used for the Interim (2016) period was used because it is "consistent with City of Irwindale traffic study guidelines," why is that only true for the Interim period and not the Long Range (2035) period?

3. ***Level of Service Calculation Methodology*** – The DEIR traffic analysis violated the terms of the City of Irwindale *Policy Guidelines for Traffic Impact Reports*, which requires the use of the current version of the *Highway Capacity Manual* (HCM). Specifically, the analysis was conducted using the obsolete year 2000 version of the HCM, even though the current (year 2010) version of that document was released on April 11, 2011, approximately two years prior to initiation of the DEIR traffic study. 46

   Again, the RDEIR disregards this problem with the traffic analysis.

4. ***Determination of Significant Impacts*** – The DEIR traffic analysis evaluated intersection level of service (LOS) using two very different methodologies: the *Highway Capacity Manual* (HCM) method and the Intersection Capacity Utilization (ICU) method. This was apparently done to 47

satisfy both the City of Irwindale guidelines (which require use of the HCM procedures) and the Los Angeles County Metropolitan Transportation Authority *2010 Congestion Management Program*, which requires use of the ICU method, but does not allow use of the HCM method. 47 con't

In describing these two methods, the DEIR traffic report states:

- "The HCM results present a more accurate representation of the intersection operational level."
- The ICU method "is more meaningful when identifying a project's impact."

The DEIR traffic analysis bases its conclusions regarding project-related impacts solely on the HCM analysis results, while totally ignoring the ICU analysis results (which are described as "more meaningful" for that purpose). This approach has the effect of failing to identify a number of significant impacts that were revealed through the ICU intersection analyses.

We suggested that the determination of significant intersection impacts must be based on both level of service calculation methodologies, so as to be consistent with City of Irwindale and Los Angeles County 2010 CMP requirements. The RDEIR included no revisions addressing this failure to identify significant traffic impacts.

5. ***Incorrect ICU Analysis*** – As noted above, use of the ICU method to determine intersection level of service is mandated by both the City of Irwindale and the Los Angeles County 2010 CMP. Moreover, the 2010 CMP document states that the mandated capacity value is 1,600 vehicles per lane per hour for all through and turn lanes and 2,880 vehicles per lane for dual turn lanes. Because of the manner in which the ICU values were derived for the DEIR, however, a capacity value of 1,900 vehicles per lane per hour was used in the analysis, which is nineteen percent higher than the value allowed in the 2010 CMP. Consequently, each of the V/C ratios derived from the ICU analyses is nineteen percent lower than if it had been determined using the prescribed capacity value. 48

   Therefore, the ICU analyses presented in the DEIR present an inaccurate and unrealistically low volume/capacity ratio for each of the study intersections. Once again, the RDEIR has ignored this deficiency in the analysis.

6. ***Incorrect Treatment of Pass-by Trips*** – The trip generation estimates documented in the DEIR include adjustments for "pass-by" trips at the proposed convenience market (i.e., trips that are already on the adjacent streets and are diverted into the project site). The pass-by trips have been deducted from the overall project trip generation estimate, which is incorrect, as the total volume of traffic generated by the proposed project will travel through the project's driveways, regardless of the pass-by percentage. 49

   According to the DEIR, 63 percent of the convenience market trips have been defined as pass-by trips, and the same factor has been applied to the AM peak hour volumes, the PM peak hour volumes, and the daily volumes (even though the ITE *Trip Generation Handbook* includes no information regarding daily pass-by trip rates).

   Because the volume of project-generated traffic assigned to the convenience market driveway intersections was inappropriately reduced, the level of service results and the queue length

estimates for those locations are inaccurate and the impacts associated with the proposed project are understated. 49 con't

The RDEIR failed to address this misapplication of pass-by trips at the project driveways.

7. ***Incorrect Application of Caltrans Standard of Significance at Ramp Intersections*** – The standard of significance employed in the DEIR traffic analyses with regard to Caltrans facilities is taken from the Caltrans *Guide for the Preparation of Traffic Impact Studies* (December 2002). Specifically, the standard is the transition between LOS C and LOS D. That is, Caltrans considers LOS C to be acceptable and LOS D to be unacceptable. 50

   However, the DEIR traffic impact analysis incorrectly interprets the Caltrans guideline, as it uses LOS D as the "maximum acceptable threshold for study ramp intersections and freeway mainline and ramp segments." Moreover, for signalized intersections on state highways, the DEIR indicates that operation at LOS E is acceptable, as long as the intersection operates in the upper half of the LOS E delay range. This is incorrect and also violates the established Caltrans operational standard.

   Application of the Caltrans standard presented above (i.e., the threshold between LOS C and LOS D) to the freeway ramp intersections under Existing Plus Project conditions would result in significant impacts at several additional locations beyond those identified in the DEIR. Similar issues were found for Interim Year (2016) conditions and Long Range (year 2035) conditions. Specific information concerning those additional impacts is presented in our May 1, 2014 letter.

   Once again, the RDEIR fails to remedy this deficiency and, therefore, a number of significant impacts are not identified.

8. ***Incorrect Application of Caltrans Standard of Significance at Freeway Segments and Ramp Junctions*** – The same issue described above (i.e., failure to correctly apply the Caltrans level of service standard) applies to the DEIR analysis of the freeway mainline segments and the merge/diverge areas associated with freeway on- and off-ramps. Instead, a much more lenient standard was employed. 51

   Attached to our May 1, 2014 letter are tables that we marked-up to illustrate the additional freeway segments and ramp junction locations at which project-related significant impacts are projected to occur, based on correct application of the Caltrans LOS standard. Numerous locations were identified that will operate at an unacceptable level of service under the Caltrans guidelines. None of these locations, however, was identified as having a significant impact in either the DEIR or the RDEIR.

9. ***Failure to Consider the Safety Effects of Truck Traffic*** – Although the proposed project will add a substantial volume of heavy trucks to the study area road system, the "Traffic Generation and Circulation" section of the DEIR included no discussion or analysis of auto-truck conflicts and the potential safety issues associated with mixing automobile traffic with a considerable amount of heavy-vehicle traffic. Similarly, the RDEIR is inappropriately silent on this issue. 52

10. ***Failure to Identify Significant Unavoidable Impacts*** – In our May 1, 2014 comment letter, we pointed out that the DEIR mistakenly stated that proposed mitigation measures at a number of 53

Caltrans-controlled locations would reduce project-related impacts to less than significant. Because the locations that we referred to are under Caltrans jurisdiction, neither the project proponent nor the City of Irwindale as Lead Agency has control over whether these improvements are ever completed. Consequently, the significant impacts will remain Significant and Unavoidable. Revisions have been incorporated into the RDEIR that correctly characterize the ultimate status of these locations (although we again note that the DEIR failed to identify a number of significant impacts on the Caltrans-controlled road system by misinterpreting the Caltrans standards of significance). 53 con't

We also commented on the suggestion within the DEIR that payment of a fair share contribution toward mitigation of long range traffic impacts would be sufficient to meet the proposed project's obligations. Given the lack of an adopted fee program or other mechanism to pay for the portion of the mitigation costs beyond that fair share, the mitigation measures included in the DEIR Mitigation Program may never occur. The RDEIR has not been revised to address this issue.

CONCLUSION

Our review of the Recirculated Draft Environmental Impact Report prepared for the proposed Irwindale Materials Recovery Facility and Transfer Station project in Irwindale, California revealed that our previously-submitted comments have largely been ignored. Although the DEIR had a number of deficiencies with regard to the validity of the analysis procedures and conclusions, the RDEIR reflects almost no effort to correct those shortcomings.

Please feel free to contact me at (916) 783-3838 if you have questions concerning anything presented here.

Sincerely,

MRO ENGINEERS, INC.

Neal K. Liddicoat, P.E.
Traffic Engineering Manager

Attachment B

Irwindale Policy Guidelines for Traffic Impact Analyses

POLICY GUIDELINES
for
TRAFFIC IMPACT REPORTS

CITY OF IRWINDALE

August 20, 2004

Policy Guidelines:

Traffic Impact Analysis

For Private Development Review

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Policy Guidelines:

Traffic Impact Analysis

For Private Development Review

I. Introduction

The purpose of this document is to provide a general guide to applicants and their development teams in assessing the potential traffic impacts of new developments proposed within the City of Irwindale, including those which may result from related changes in zoning and General Plan amendments. Based on current state-of-the-practice in transportation planning and development engineering, the following guidelines have been developed to provide a clear, orderly, and consistent technical approach to traffic impact analyses by establishing minimum standards for all traffic impact studies and records. The Department of Public Works shall review traffic studies and reports based on the guidelines presented herewith. Traffic studies and reports prepared in compliance with these guidelines will be deemed complete or satisfactory for CEQA[1] purposes. Alternatively, reports and studies not in compliance with these guidelines shall be deemed incomplete.

A traffic impact analysis (TIA) is an important tool for determining the traffic impacts of a proposed private land development project and identifying the need for any improvements to the transportation system to reduce congestion, maintain and improve safety, and provide site access and impact mitigation associated with the proposed project. Traffic impact analyses provide the City of Irwindale, other public agencies, developers, communities and neighborhoods, interested stakeholders, and also the general public with a framework in making critical land use and site planning decisions regarding traffic and transportation issues.

II. Project Scope and Definition

For the purposes of preparing a TIA for a proposed development or redevelopment project, all property at one location, including any existing development or available land for building under common ownership or control, shall be considered when determining if required criteria are met. An applicant and/or consultant shall not avoid the intent of the threshold criteria in these guidelines by submitting "piecemeal" applications.

The applicant shall provide a project description that includes specific land uses intended for the site and the size of the proposed development (e.g. square footage, acreage, dwelling units, etc.). The project description shall be used as the basis for all TIAs. In the case of "shell" buildings with unidentified uses or where the ultimate tenant use of the building cannot be enforceably restricted, the Department of Public Works shall recommend the use of the highest traffic intensity among all permitted uses to establish traffic impacts and to calculate development impact fees.

III. Trip Generation Analysis

As the first step in a TIA for a proposed development project, the applicant shall submit a final site plan that will help identify the potentially new or added vehicle-trips from the proposed project for the following scenarios:

- Daily Trip Generation Analysis
- Peak Hour Trip Generation Analysis

The City of Irwindale, on behalf of the project applicant at his/her cost, shall retain a professional traffic engineer, who is licensed to practice in the State of California, to conduct the TIA along including a trip generation analysis. The traffic consultant shall conduct work to be in compliance with the guidelines in this section. The trip generation estimation for all new or proposed development projects shall include the summation of primary trips and diverted linked trips, or simply all trips generated by a project site that are not pass-by-trips.[2]

The estimation of new trips generated by proposed development projects during critical peak hours may include credit for trips associated with existing, current, or historical uses on the site. The final estimate of new peak-hour trips associated with a proposed development project should represent the net contribution of the proposed project (i.e. 'proposed minus existing' land use).

However, the calculation of trip generation for a proposed new or expanded use or a proposed increase in intensity of use shall include the total traffic generated by the proposed use as well as the existing uses on the project site.

A. Fundamental Requirements

Trip generation analyses should be based on the Institute of Transportation Engineers (ITE) *Trip Generation*[3] publication, latest edition. If the proposed development does not "fit" into a specific ITE Classification, alternative means of estimating trip generation may be used subject to the approval of the City Public Works Director, or his/her designee.

Other important fundamental requirements for these alternative means of trip generation follow:

1. It is noted that the project trip generation rate cannot be based solely on one nearby or similar land use facility. The sample used for non-standard trip generation rates should include several similar facilities in the City of Irwindale or neighboring cities with similar characteristics.

2. If the study involves comparable sites located in other communities, the applicant must demonstrate to the satisfaction of the Public Works Director that the sites and uses to be studied are reasonably equivalent to the site and use proposed in the City of Irwindale.

3. The final trip generation rates used for the project should be an appropriate weighted average of the various trip generation rates available. A tabular summary of the final trip generation rate calculation shall be provided.

B. Types of Trip Generation

The ITE has developed a recommended practice to establish a basis for consistency in traffic impact analyses, with the primary purpose of providing reliable guidance for site access, on-site circulation, and off-site improvement planning in accommodating site and other traffic safely and efficiently.[4] The sections that follow have been extracted from the industry-standard reference *Trip Generation Handbook, An ITE Recommended Practice.*[2]

The trip generation rates and equations contained in ITE's *Trip Generation*[3] represent vehicles entering and exiting a site at its driveways. These volumes are appropriate for determining the total traffic to be accommodated by the project site's driveways. There are land use types, however, for which the total number of trips generated by the site is different from the amount of new traffic added to the street system by the proposed project. Certain land uses (e.g., retail, restaurants, banks among others) attract motorists already on the street. These sites attract a portion of their trips from traffic passing the site on the way from origin to an ultimate destination. Hence, the impacts of a proposed project on an adjacent street may be less than the full trip estimates using ITE trip generation rates.

Consequently, trip generation can be broken down into two major categories: pass-by trips and non-pass-by-trips. In some traffic impact study applications, the subdivision of non-pass-by trips may be appropriate and could be broken into primary trips and diverted linked trips.

A more detailed description for each type of trip generation follows:

1. **Pass-By Trips:** These are trips that are made as intermediate stops on the way from an origin to a primary trip destination without a route diversion. They are attracted from passing the site on an adjacent street or roadway that offers direct access to the project site. Pass-by trips are not diverted from another roadway. These trips are closely linked to the size and type of the development, and to the volumes of traffic on the adjacent street that can deliver the pass-by trip.

2. **Non-Pass-By Trips:** These are trips generated by a project site that are not pass-by trips. The trip generation estimation for all new or proposed development projects must include the summation of primary trips and diverted linked trips.

    a. Primary Trips: Trips made for the specific purpose of visiting the generator. The stop at the generator is the primary reason for the trip. The trip typically goes from origin to generator and then returns to the origin (e.g., home-to-shopping-to-home combination of trips).

    b. Diverted Linked Trips: Trips that are attracted from the traffic volume on roadways within the vicinity of the generator but that require a diversion from that roadway to another roadway to gain access to the site.

        i). Diverted linked trips add traffic to streets adjacent to a project site, but may not add traffic to the area's major travel routes, such as nearby major highways or freeways.

        ii). Because diverted linked trips are often difficult to identify, these trips should be treated similarly to primary trips, unless: (1) all three (primary, pass-by, and diverted linked) categories are being analyzed and processed separately, and (2) the travel routes for diverted link trips can be clearly established.

        iii). Standard methodologies for assessing traffic impacts of site development typically require that diverted linked trips be included as additional trips within the confines of local impact assessment studies.

        iv). Diverted linked trips represent a change in local area travel patterns but constitute no new increase on a macroscopic scale. However, within the immediate study area diverted linked trips do represent additional traffic on individual streets and should be analyzed also.

An illustrative example of a trip generation analysis is shown in Exhibit A at the end of this document.

C. General Plan Policy on Crucial Corridors: Daily Trips

According to the City's General Plan, one of the key circulation policies in its traffic management strategy has been to reserve traffic capacity within major corridors for community-wide circulation. These facilities are known as Highway Performance Monitoring System (HPMS) Highways, derived from the US Department of Transportation Federal Highway Administration. The HPMS is a national level highway information system that includes data on the extent, condition, performance, use, and operating characteristics of the Nation's highways. Current City policy has not limited development with direct access to these streets to low-traffic-generating uses. A City map showing all HPMS Highways is shown in Exhibit B at the end of this document.

D. Peak-Hour Trips: Thresholds for Traffic Analysis

To help determine the nature and scope of the traffic analysis needed for specific projects, the City may refer to the TIA Requirement Checklist, at the end of this document, which is based on the critical peak-hour trip generation and summarized in the following sections.

1. If the net new project trip generation in the critical peak hour is estimated to be less than 25 vehicle-trips, then a traffic letter will be required.

2. If the net new project trip generation in the critical peak hour is estimated to be more than 25 but less than 50 vehicle-trips, a focused site traffic review is required for the proposed project according to the guidelines in Section IV.

3. If the net new project trip generation in the critical peak hour is estimated to be more than 50 vehicle-trips, a full traffic impact analysis study is required for the proposed project according to the guidelines in Section V.

4. If the proposed project is anticipated to have a significant effect on the environment and may require preparation of an Environmental Impact Report (EIR), the transportation analysis study for such a project shall be conducted according to the guidelines in Section VI.

5. In the absence of locally preferred thresholds, current practice in traffic impact analyses suggests that a traffic access/impact study be conducted whenever a proposed development will generate 50 or more added or new peak direction trips to or from the site during the adjacent roadways' peak hours or the development site's peak hour. This site trip generation threshold has been set by the Los Angeles County Congestion Management Program (CMP) and is appropriate for the following reasons:

    - 50 vehicles per hour are of a magnitude that can change the level of service of an intersection approach.

    - Left- or right-turn lanes or other safety enhancements may be needed to satisfactorily accommodate site traffic without adversely impacting through (non-site) traffic.[5]

6. The City of Irwindale has established threshold criteria for traffic impact analyses that reflect the community's value for smart growth and responsible development.

7. For all proposed development projects regardless of peak-hour trip generation, the Department of Public Works shall review the project site plan in terms of access to the public road system, internal circulation, safety of all road users (e.g. motorists, bicyclists, pedestrians, transit riders), traffic control, signing and striping, roadway standards, parking demand, parking dimensions and layout, emergency vehicle access, and other site relevant traffic features.

IV. Focused Site Traffic Review

If the net new project trip generation in the critical peak hour is less than 25 vehicle-trips, then only a traffic letter is required. A traffic letter is a smaller version of a traffic study without extensive data collection. Traffic letters should include the following: Introduction, Project Description and Location, Off-site/On-site Parking and Circulation, Passenger Pick-Up/Drop-Off and Truck Loading/Unloading Dimensions, Trip Generation Forecast–Traffic Impact On Neighborhood, and a Summary of Findings and/or Recommendations. The City will provide general guidelines and requirements for a traffic letter.

If the net new project trip generation in the critical peak hour is estimated to be more than 25 but less than 50 vehicle-trips, a focused site traffic review is required for the proposed project according to the guidelines in this section.

Depending on the specific nature of the proposed project and its location, the engineering consultant shall conduct the review, which may include qualitative analysis of one or more of the following operational concerns:

- Existence of any current traffic problems in the local area, such as a high-accident location (include collision diagram/accident rate analysis), confusing intersection(s), limited sight distance issues, or an intersection(s) in need of a traffic signal.

- Sensitivity of the adjacent neighborhoods or other areas that may be perceived as impacted.

- Close proximity of proposed site driveway(s) to other driveways or intersections.

- Parking adequacy relative to both the anticipated project demand and City of Irwindale code requirements.

- Site traffic requirements.

- On-site traffic circulation.

- Potential for the project to adversely impact transit operations.

- Potential for the project to adversely affect pedestrian safety or the adequacy of nearby pedestrian facilities.

- Potential for the project to adversely affect bicyclist safety or the adequacy of nearby bicyclist facilities.

- Adequacy of the project site design to fully satisfy truck-loading demand on-site, when the anticipated number of deliveries and service call may exceed five (5) truck trips daily. Also, a truck trip generation study for heavy-related land uses, such as truck stops, truck repairs, heavy industrial, and truck terminals, may be required. Passenger car equivalents (PCE) factors will be developed for the Intersection Capacity Analysis (ICA).

- Substantial increase in potential hazards due to a design feature (e.g. sharp curves/dangerous intersections) or incompatible uses (e.g. farm equipment).

- Project site design resulting in inadequate emergency vehicle access.

- Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g. bus turnouts, bicycle racks).
- Response to comments from external public agencies (e.g., Caltrans, Los Angeles County, MTA and neighboring cities among others). [5, 6]
- Ambient growth factor of 2% per year.
- Cumulative project assumptions.

V. Full Traffic Impact Analysis (TIA) Study

If the net new project trip generation in the critical peak hour is estimated to be more than 50 vehicle-trips, a full traffic impact analysis study is required for the proposed project according to the guidelines in this section.

A. Overall Review Process

The traffic consultant shall conduct the work in the following phased manner:

1. Traffic Study Scope of Work (detailing project description, site location, study intersections, peak hours for analysis, and traffic data collection)
2. Project Trip Generation and Trip Distribution (documenting all key technical assumptions, data sources, and references)
3. Draft Traffic Study Report (prepared according to the Scope of Work, Project Trip Generation and Trip Distribution approved by the Department of Public Works)
4. Final Traffic Study Report (addressing the Department of Public Works' comments on the Draft Report)
5. Responses to Public Agency Comments (e.g., Caltrans, Los Angeles County, MTA, and neighboring cities among others)

The Department of Public Works shall review the deliverable from each of the above phases of the traffic impact analysis study. Approval of the deliverable at each phase of the study is necessary prior to continuing to a later phase.

Caltrans may need to review the traffic study scope of work where the following conditions exist:[7]

- Safety impacts affecting State facilities are anticipated
- Project access is at or near State facilities
- Project trip generation is substantial with respect to existing and/or future capacity.

Caltrans' early review of the traffic study scope of work is in addition to the normal CEQA clearinghouse distribution performed by the Public Works Department.

B. General Methodology

1. The traffic study shall identify and analyze all the impacts to the operational conditions (LOS) of the transportation facilities in the project in accordance with the current Highway Capacity Manual (HCM).[8] The operational methodology of the current HCM shall be used for signalized intersections. Signal timing information for City signals shall be provided by the Department of Public Works. Signal timing information for Caltrans-maintained signals shall be obtained from Caltrans. Signal timing information for other agencies, such as Los Angeles County or other cities, shall be obtained from their respective departments.

2. Traffic impacts should be analyzed in terms of standard state-of-the-practice professional procedures for trip generation, trip distribution, and traffic assignment, as recommended by the Institute of Transportation Engineering (ITE).[5, 9]

3. The study should accurately analyze the impact of specific proposed developments, the adequacy of site access, and the suitability of on-site circulation and parking. To accurately gauge impacts, needs and opportunities for improvements, the study should provide the following information, as appropriate to the specific development site:

    - Characteristics of the existing roadway and public transit systems
    - Characteristics of the proposed developments
    - Project access plans and site plan
    - Future approved development traffic
    - Projections of traffic volumes on individual roadway segments
    - Projections of turn movements at individual intersections and access driveways

- Road system adequacy and needs
- Effect of numerous access points along an arterial as opposed to only a few consolidated access points
- Effects of modest changes in surrounding land uses on the individual location land use
- Pedestrian, bicyclist, and transit access requirements

4. The study shall include the traffic operational analysis of study intersections for the following conditions or scenarios:

    - Existing Conditions (Include Truck Classification for Truck Routes)
    - Existing Plus Any Required Mitigation
    - Existing Plus Project
    - Future Baseline (Without Project)
    - Future Plus Project
    - Future Plus Project Plus Cumulative Projects

5. The study area should be based upon the type of land use, size of development, street system patterns, terrain, and specific site issues. The Department of Public Works will provide input to the traffic consultant regarding the selection of study intersections using local area knowledge and the following guidelines:

    a. All site access drives, adjacent roadways, and intersections around the site, plus the major or signalized intersections in each direction from the site leading up to the nearest regional corridor(s).

    b. Carry the analysis to locations where site-generated traffic would represent five (5) percent or more of the roadway's peak hour approach capacity.

6. Based on the land use of the proposed project and upon consultation with the Department of Public Works, the study shall include one or more of the following peak periods for capacity-constraint intersection analysis:

    - Midweek morning peak (7:00-9:00 PM)
    - Midweek evening peak (4:00-6:00 PM)

7. Data for existing traffic conditions shall be collected for the project using the following guidelines:

a. Peak hour turning movement counts shall be collected for all study intersections. Average Daily Traffic (ADT) volumes for all adjacent roadways shall also be required. A truck classification study shall be conducted for all intersections.

b. Data should not be collected on Mondays, Fridays, holidays, days immediately prior to or following after holidays, during the last two weeks in December, or during heavy construction and during large special events. The counts should be collected while school is in session and/or close to summer tourist peak for typical weekday conditions.

c. Traffic counts shall not be used if more than one year old. If available, Caltrans, Los Angeles County or city's traffic counts may be used, but must be adjusted to reflect current year traffic volumes and patterns.

8. All level-of-service (LOS) results reported under 'Existing Conditions' must be supported by field observations during the peak periods analyzed along with truck classification adjustments. Specific operational problems must be identified and described in support of the reported LOS results. Observations must be completed during non-holiday or non-special events conditions, with the intent of capturing field conditions that reflect typical conditions. (See *Exhibit D: Count Adjustment Factors*)

9. Depending on the specific nature of the proposed project and its location, the study shall include the analysis of traffic flows/patterns with and without the street connectivity as future background conditions. Project trips should then be added to both background conditions.

10. The study shall include a circulation map/figure showing the plan view of the streets in the immediate study area, limitations of sight distances in and around the project site, the location of surrounding driveways, and the location and description of any unusual features that may pose particular vehicular, pedestrian, or bicyclist circulation problems.

TABLE 2
LEVEL OF SERVICE CRITERIA

Level of Service	Two-Way or All-Way Stop Controlled Intersection Average Delay per Vehicle (sec)	Signalized Intersection Average Delay per Vehicle (sec)
A	0-10	10
B	> 10 - 15	> 10 - 20
C	> 15 - 25	> 20 - 35
D	> 25 - 35	> 35 - 55
E	> 35 - 50	> 55 - 80
F	> 50	> 80 or a V/C ratio equal or greater than 1.0

For the study area intersections, the SYNCHRO computer software, Version 6.0 has been utilized to determine intersection levels of service. Levels of service are presented for the entire intersection, consistent with the local and regional agency policies.

While the level of service concept and analysis methodology provides an indication of the performance of the entire intersection, the single letter grade A through F cannot describe specific operational deficiencies at intersections. Progression, queue formation, and left-turn storage are examples of the operational issues that affect the performance of an intersection, but do not factor into the strict calculation of level of service. However, the SYNCHRO software does provide an output that quantifies operational features at intersections, such as vehicle clearance, queue formation, and left-turn storage requirements. In addition, it provides a V/C ratio based on intersection capacity utilization (ICU) that is more meaningful when identifying a project's impact and developing mitigation measures. Therefore, this V/C ratio information is also included in addition to delay information in describing an intersection's operational performance under various scenarios.

EXISTING ROADWAY SYSTEM AND TRAFFIC VOLUMES

EXISTING CIRCULATION NETWORK

In order to assess future operating conditions both with and without the proposed project, existing traffic conditions within the study area were evaluated. **Figure 1**, Vicinity Map, illustrates the existing circulation network within the study area as well as the location of the proposed project.

C. Level-of-Service Criteria from General Plan

The following level-of-service (LOS) policy statements from the City of Irwindale's General Plan[10] shall be implemented using the current *Highway Capacity Manual* (HCM).

1. The City shall ensure that traffic levels-of-service (LOS) will not exceed LOS 'D' at all signalized intersections on arterial and collector streets, with no exceptions.

2. For traffic signals on State Highway facilities, the threshold level is LOS 'E,' consistent with the criteria used by the Los Angeles County Congestion Management Program (CMP) for freeway mainline sections and freeway ramps.

3. The City shall ensure that all new development and redevelopment will meet adopted service levels (LOS) for transportation facilities unless findings are made that achieving other specific public goals found in the General Plan outweigh this requirement.

4. The City shall focus on signalized intersections when evaluating the street system LOS.

5. When reviewing projects, the City shall also monitor stop-controlled intersections using LOS and the *Highway Capacity Manual* as a guideline, and applying the MUTCD 2003 with California Supplement signal warrants evaluation.

The above General Plan policy statements are supplemented by the following LOS criteria for un-signalized or stop-controlled intersections.

6. For un-signalized intersections, the minimum acceptable level of service recommended by the General Plan is midrange LOS 'D.'

7. For un-signalized intersections, a low-volume movement may have delays that yield in excess of LOS 'D', but may still be considered as having "acceptable operation" by considering both total delay and LOS (defined in terms of average control delay). An intersection traffic movement at a stop-controlled approach can be deemed to have acceptable operation under the following conditions:[11]

a. Total delay less than 4.0 vehicle-hours for single lane movement with low volume

b. Total delay less than 5.0 vehicle-hours for multilane movement with low volume

D. Guidelines for Determination of Significant Impacts

1. Traffic impact determination for a proposed development project shall begin with the comparison of the intersection level-of-service (LOS) between the following pairs of traffic operating conditions:

    a. Existing Conditions vs. Existing Plus Project

    b. Future Baseline vs. Future Plus Project

    c. Potential Truck Impacts to Street Pavement

    The above comparisons are anticipated to reveal the direct impacts of project trips on the LOS of the study intersections. Projects generating 50 or more 3-axle vehicle-trips per day shall include a Traffic Index (TI) calculation for the most immediate roadway serving the project, using State methodology.

2. In accordance with CEQA requirements, the ultimate determination of the significance of project-related traffic impacts and the appropriate mitigation measure(s) will be made by the Planning Commission and the City Council on a case-by-case basis. The Department of Public Works will make technical recommendations to the Planning Commission and City Council. As a starting point in assessing the significance of traffic impacts and the appropriate mitigation measures, the Department of Public Works uses the following guidelines:

    a. When a signalized intersection operates at mid-range LOS 'D' (as allowed by the General Plan in most locations) or better under existing or future baseline conditions, and the addition of project trips degrades the intersection operations to LOS 'E' or 'F.' The project mitigation should bring the facility to operate at mid-range LOS 'D' at minimum.

    b. When a signalized intersection operates at mid-range LOS 'E' (as allowed by the General Plan in some locations and for State Highways facilities) or better under existing or future baseline conditions, and the addition of project trips degrades the intersection operations to LOS 'F.' The project mitigation should bring the facility to operate at mid-range LOS 'E' at minimum.

c. When a signalized intersection operates at LOS 'F' (a violation of the General Plan LOS policy) under existing or future baseline conditions, and the addition of more than 50 peak-hour project trips contributes to the continuing operational failure at the intersection. The project mitigation should bring the facility to pre-project conditions, which typically are defined as 'existing' conditions.

d. At an un-signalized intersection, when the minor stop-controlled approach operates at LOS 'F' and does not have acceptable operation in terms of total control delay (see C-7 above), and the addition of project trips increases the total control delay to more than 4.0 vehicle-hours for a single lane approach or 5.0 vehicle-hours for a multilane approach. The project mitigation should bring the facility to operate at LOS 'E' minimum or to bring the total control delay to less than 4.0 vehicle-hours for a single lane approach or 5.0 vehicle-hours for a multilane approach at a minimum.

e. At an un-signalized intersection, when the minor stop-controlled approach operates at LOS 'F' and does not have an acceptable operation in terms of total control delay (see C-7 above), and the addition of more than 50 peak-hour project trips contributes to the continuing operational failure at the minor approach. The project mitigation should bring the facility to pre-project, or existing conditions.

E. Mitigation Measures

All significant project impacts shall be mitigated; typically, this can be accomplished by meeting the criteria prescribed in the General Plan LOS policies (see C-1 through C-7).

When operational failures occur under existing or future baseline conditions, the project shall pay its fair share of the improvements necessary to bring the intersection in compliance with the General Plan LOS policies (see C-1 through C-7).

The Consultant shall recommend appropriate traffic engineering improvements and/or land use modifications that will mitigate the operational impacts identified in the study, thereby maintaining an acceptable LOS on adjacent roadways, intersections, transit and parking facilities.

The mitigation measures may include the following examples, among others:

1. Roadway Improvements

   - Optimize location of access driveway(s) with respect to sight distance
   - Addition of through-traffic lane(s), right-turn lane(s), and left-turn lane(s)
   - Improvement of sight distances at intersections and driveways to acceptable standards
   - Provide grade-separation of facilities (for very large, major developments)

2. Traffic Control Modifications (State or local warrants must be met)

   - Provide for yield or stop control
   - Install new traffic signals
   - Upgrade existing traffic signals
   - Modify/optimize phasing of existing traffic signals
   - Provide coordination/synchronization of traffic signals along a corridor
   - Provide channelization through raised islands
   - Restrict certain turn movements

3. Transit Facilities

   - Provide bus turn-outs, park-and-ride lots, bus stops, bicycle and/or pedestrian trails

4. Parking Facilities

   - Design parking facilities to allow free-flow access to/from the street system
   - Provide adequate off-street parking
   - Implement shared parking among complimentary land uses

5. Bicyclist and Pedestrian Circulation

   - Provide access to/from and through project development for bicyclists and pedestrians
   - Recommend designating bicycle paths, lanes, and facilities

6. Land Use Control

   - Reduce cumulative development density
   - Alter proposed land use mix

7. Transportation Demand Management (TDM)

- Implementation of flexible employee working hours
- Institute preferential parking for carpools
- Encourage employees to use carpools and public transportation
- Prohibit high-traffic public uses during commute peak hours (typically 7:00-9:00am and 4:00-6:00pm)

F. Project Fair Share

The project fair share contribution for an impacted intersection that fails operationally under existing or future baseline shall be determined through the use of traffic volumes during the critical peak hour. The fair share for the project shall be calculated as the ratio of the project trips over the trips under 'Existing + Project' conditions. Projects only pay based on what trips they add to pre-project conditions.

The fair share for the project shall be calculated using the traffic volumes that enter an intersection during the most critical peak hour period analyzed. The project fair share calculation is demonstrated below:

P = Project Fair Share (in percent)

$T_{(p)}$ = Trips entering the intersection during the critical peak hour generated by the Project (in vehicles per hour)

$T_{(E+P)}$ = Trips entering the intersection during the critical peak hour under 'Existing + Project' conditions (in vehicle per hour)

$$P = T_{(P)} / T_{(E+P)}$$

G. Study Report Contents

Though the extent and content of traffic study reports will vary with the needs of the projects being studied, certain guidelines are applicable to all such reports. The following sections, at a minimum, shall be included in the traffic impact analysis:

1. Introductory Items

- Front Cover/Title Page
- Table of Contents, List of Figures, and List of Tables
- Executive Summary

2. Project Description

   - Type, scale, and size of development
   - Location map (include major streets, study intersections, and neighboring land uses)
   - Site plan shall be on full-size (24"x36") sheet and shall include proposed driveways, streets, traffic control, parking facilities, emergency vehicle access, and internal circulation for vehicles, bicyclists, pedestrians and loading zones

3. Setting

   - Existing roadway system within project site and surrounding area
   - Location and routes of nearest public transit system serving the project
   - Location and routes of nearest pedestrian and bicycle facilities serving the project

4. Existing Conditions

   - Map of study area with ADT of major streets
   - Figure of study intersections with lane geometry and traffic control
   - Map of study area with applicable peak hour turning movements
   - Table of existing peak hour Level of Services (LOS)

5. Existing Plus Project Conditions

   - Table of trip generation for project
   - Figure/map and table of trip distribution (in percent)
   - Figure of traffic assignment of project trips only
   - Map of study area with applicable peak hour turning movements
   - Table of applicable peak hour Level of Service (LOS)

6. Future Baseline (Without Project) Conditions

   - Map of study area with applicable peak hour turning movements
   - Table of applicable peak hour Level of Service (LOS)

7. Future Plus Project Conditions

   - Map of study area with applicable peak hour turning movements
   - Table of applicable peak hour Level of Service (LOS)

8. Impacts and Mitigation Measures

   - Findings for project impacts
   - Mitigation measures for project impacts
   - Figure/sketch of mitigation measures and right-of-way needs
   - Traffic signal warrants and/or other completed warrants
   - Financing of mitigation measures/project's fair share
   - Scheduling and implementation responsibility of mitigation measures

9. Appendices

   - Traffic count data sheets
   - Analysis methods, worksheets, and calculations
   - Computer printouts for LOS calculations

VI. Transportation Analysis for EIRs

If the proposed project is anticipated to have a significant affect on the environment and may require an Environmental Impact Report (EIR), the transportation analysis study for such a project shall be conducted according to the guidelines in this section.

A. Overall Review Process

The City shall retain a professional traffic engineer, at applicable cost, who is licensed to practice in the State of California, to conduct the transportation analysis. The traffic consultant shall conduct the work in the following phased manner:

1. Traffic Analysis Scope of Work (detailing according to the Scope of Work intersections, peak hours for analysis, and traffic data collection)

2. Technical Memos of Key Findings (prepared according to the Scope of Work approved by the Department of Public Works)

3. EIR Documents (provide relevant sections to the EIR consultant; should address the Department of Public Works' comments on the Technical Memos of Key Findings)

4. Peer Review by Independent EIR Consultant (coordinated and managed by the Planning Department)

5. Response to Public Agency Comments (e.g. Caltrans, Los Angeles County, MTA and neighboring cities among others)

The Department of Public Works shall review the deliverable from each of the above phases of the EIR transportation analysis study. Approval of the deliverable at each phase of the study is necessary prior to continuing to a later phase.

Caltrans would like to review traffic study scopes of work where the following conditions exist:

- Safety impacts affecting State facilities are anticipated.
- Project access is at or near State facilities.
- Project trip generation is substantial with respect to existing and/or future capacity.

Caltrans' early review of traffic study scopes of work is in addition to the normal CEQA clearinghouse distribution performed by the Planning Department.

B. General Methodology

1. The General Methodology Section V-B of these guidelines shall apply to the transportation analysis study for EIRs.

2. The transportation analysis shall utilize the City's Traffic Model (applicable *HCM software such as Webster, HCM2000, or Synchro*) in order to analyze both local site impacts and citywide circulation impacts.

3. The transportation study shall include the operational analysis of intersections, arterial corridors, and State Highway facilities.

C. Level-of-Service Criteria from General Plan

1. The Level-of-Service Criteria from General Plan in Section V-C of these guidelines shall apply to the transportation analysis study for EIRs.

2. For freeway mainline sections and freeway ramps, the threshold level is LOS 'E', consistent with the criteria used by the Los Angeles County CMP.

D. Guidelines for Determination of Significant Impacts

1. The Guidelines for Determination of Significant Impacts in Section V-D of these guidelines shall apply to the transportation analysis study for EIRs.

2. In accordance with CEQA requirements, the ultimate determination of the significance of project-related traffic impacts and the appropriate mitigation measure(s) will be made by the Planning Commission and the City Council on a case-by-case basis. The Public Works Department will make technical recommendations to the Planning Commission and City Council. As a starting point in assessing the significance of traffic impacts and the appropriate mitigation measures, the Public Works Department will use the following guidelines:

   a. When a freeway mainline, freeway ramp, or arterial corridor operates at LOS 'D' or better under existing, future, or cumulative baseline conditions, the addition of project trips degrades the segment to LOS 'E' or 'F'. The project mitigation should bring the facility to operate at LOS 'D', at a minimum.

   b. When a freeway mainline, freeway ramp, or arterial corridor operates at LOS 'F' under existing, future, or cumulative baseline conditions, the addition of more than 50 peak-hour project rips contributes to the continuing operational failure at the segment. The project mitigation should bring the facility to pre-project conditions.

E. Mitigation Measures

The Mitigation Measures in Section V-E of these guidelines shall apply to the transportation analysis study for EIRs.

F. Project Fair Share

1. The Project Fair Share in Section V-F of these guidelines shall apply to the transportation analysis study for EIRs.

2. The project fair share contribution for an impacted roadway facility (other than an intersection) that fails operationally under existing or future baseline conditions shall be determined through the use of traffic volumes during the critical peak hour. The fair share for the project shall be calculated as the ratio of the project trips over the trips under 'Baseline + Project' conditions. Projects only pay based on what trips they add to post-project conditions.

The fair share for the project shall be calculated using the traffic volumes that use a roadway facility during the most critical peak hour period analyzed. The project fair share calculation is demonstrated below:

P = Project Fair Share (in percent)

$T_{(P)}$= Trips using the roadway facility during the critical peak hour generated by the Project (in vehicles per hour)

$T_{(B+P)}$= Trips using the roadway facility during the critical peak hour 'Baseline + Project' conditions (in vehicles per hour)

$$P = T_{(P)} / T_{(B+P)}$$

G. Technical Memos Contents

The Study Report Contents in Section V-F of these guidelines shall apply to the technical memos for the transportation analysis study for EIRs.

List of Exhibits

Exhibit A: Illustrative **Example**: Trip Generation Rate Summary

Exhibit B: HPMS Highways

EXHIBIT "A"

ILLUSTRATIVE EXAMPLE – TRIP GENERATION RATE SUMMARY

Land Use	Weekday Trip Gen. Rate	Highest Pk Hr % (In/Out Ratio) 7-9 A.M.	4-6 P.M.
Bank/Financial Instit.:			
Bank (walk-in only)	140/KSF, 1000/acres	4% (5:5)	12% (5:5)
Bank (w/ drive-thru)	265/KSF	4% (6:4)	16% (5:5)
S&L	60/KSF, 600/acre*	2%	9%
Church	15/KSF, 40/acre*	4% (8.2)	8% (5:5)
Cinema	80/KSF, 1.8/seat	0.5%	8% (7:3)*
Hospital	12/bed, 17/KSF	8% (7:3)	10% (7:3)
Hotel/Motel	9/room, 300/acre*	7% (6:4)	8% (5:5)
Industrial Park	7/KSF, 60/acre	13% (8:2)	10% (2:8)
Manufacturing	4/KSF, 40/acre	20% (9:1)	20% (5:5)
Office/General:			
< 100,000	20/KSF, 300/acre*	14% (9:1)	13% (2:8)
> 100,000	11/KSF, 600/acre*	13% (9:1)	14% (2:8)
Office/Medical	35/KSF, 500/acre*	8% (8:2)	12% (3:7)
Residential:			
Apt./Condo Low-Rise	7/D.U.	8% (2:8)	9% (7:3)
Apt./Condo High-Rise	4/D.U.	7% (2:8)	8% (6:4)
Mobile Home	5/D.U., 40/acre	8% (2:8)	11% (6:4)
Senior Housing	4/D.U.*	4% (4:6)	7% (6:4)
Single-Family	10/D.U., 28/acre	8% (3:7)	10% (7:3)
Restaurant:			
Quality	100/KSF, 500/acre*	1% (9:1)	8% (7:3)
Family	200/KSF, 1200/acre*	8% (5:5)	8% (6:4)
Fast Food	790/KSF, 3000/acre*	5% (6:4)	5% (5:5)
Retail:			
Convenience Store	500/KSF*	6% (5:5)	7% (5:5)
Discount Store	70/KSF, 700/acre*	2% (6:4)	7% (5:5)
Shopping Center < 100 KSF	130/KSF, 1200/acre*	3% (6:4)	10% (5:5)
Shopping Center 100-300 KSF	60/KSF, 700/acre*	3% (6:4)	10% (5:5)
Shopping Center > 300 KSF	40/KSF, 500/acre*	2% (7:3)	9% (5:5)
Supermarket	150/KSF, 2000/acre*	2% (7:3)	7% (5:5)
University/College	2.5/student, 100/acre*	10% (9:1)	9% (3:7)
Warehousing	5/KSF, 60/acre	12% (7:3)	15% (3:7)

Note: 1- All values are based on "Trip Generation", ITE, 1991, unless marked by (*), which are based on "San Diego Traffic Generators", published by San Diego Association of Governments, January, 1990.
2- KSF = 1000 square feet, D.U. = dwelling unit.
3- This table does not reflect the effects of passer-by trips. For a discussion on passer-by trips, refer to the 5th Edition of ITE Trip Generation.

Footnotes

[1] California Environmental Quality Act.

[2] *Trip Generation Handbook, An ITE Recommended Practice*, Institute of Transportation Engineers, Washington, DC, March 2001.

[3] *Trip Generation*, 6th Ed., Institute of Transportation Engineers, Washington, DC, 1997.

[4] *Transportation Impact Studies, Advancing the Land Development Process* (Brochure), Institute of Transportation Engineers.

[5] *Traffic Access and Impact Studies for Site Development, A Recommended Practice*, Transportation Planners Council, Institute of Transportation Engineers, Washington, DC, 1991.

[6] *Environmental Checklist Form*, California Environmental Quality Act.

[7] California Department of Transportation, letter from District Branch.

[8] *Highway Capacity Manual*, Transportation Research Board, National Research Council, Washington, DC, 2000.

[9] *Transportation Planning Handbook*, 2nd Ed., John D. Edwards, Jr., Editor, Institute of Transportation Engineers, Washington, DC, 1999.

[10] City of Irwindale General Plan Policy Document.

[11] NCHRP Report 457, Evaluating Intersection Improvements: An Engineering Study Guide, Transportation Research Board, National Research Council, National Academy Press, Washington, DC, 2001.

REQUIREMENT CHECKLIST

TRAFFIC IMPACT ANALYSIS

For Private Development Review

Frequently Asked Questions	Reference Pages	Yes No	Type of Traffic Analysis Required
Each development project must fall under one of the following categories:			
A) Is the proposed project anticipated to generate less than 25 vehicle-trips in the critical peak hour?	5, and 6		If *Yes*, traffic letter shall be required, which is similar to a traffic impact report, without extensive data collection.
B) Is the proposed project anticipated to generate more than 25 but less than 50 vehicle trips in the critical peak hour?	5, 6-8		If *Yes*, a *Focused Site Traffic Review* is required, which will be a report without trip generation & distribution.
C) Is the proposed project anticipated to generate more than 50 vehicle trips in the critical peak hour?	5, 8-18		If *Yes*, conduct a *Full Traffic Impact Analysis Study, with trip distribution including other public agency comments.*
D) Is the proposed project anticipated to have a significant effect on the environment and may require an environmental impact report (EIR)?	5, 18-21		If *Yes*, conduct a *Transportation Analysis Study for EIRs*, which include completion of EIR documents and peer review.
E) Is the proposed project not easily categorized into one of the above categories?	2-3		If *Yes*, contact the Department of Public Works for assistance.

Attachment C

ITE Transportation Impact Analyses and the ITE Trip Generation Handbook Excerpts

Transportation Impact Analyses for Site Development



Photo credit: Roundabout photo on cover and title page, Cindy Schwartz and George Pennell.

Institute of Transportation Engineers

C&R-405

An ITE Proposed Recommended Practice

Review of Anticipated Off-Site Changes

After defining the study area with local transportation and other reviewing officials, one should review any major land use or transportation system changes that have occurred or are anticipated to occur within the study area during the study period. The data listed in Table 3–2 should provide sufficient information to assess these changes.

Field Reconnaissance and Data Collection

The assembly of available data should be accompanied by a detailed reconnaissance of the project site, area roadways and surrounding vicinity. This should include recording all relevant characteristics needed for the analysis, plus observations of existing traffic conditions. If the person overseeing the analysis is not the person collecting the field data, then that individual should also undertake personal observations of the key intersections and roadway segments, plus observations of existing traffic conditions.

Current data should also be collected as necessary to supplement information already available. Unless there are locally preferred criteria to the contrary, traffic volume data should generally be no older than 1 year. Other types of data, such as traffic signal timing and phasing, transit routing and frequencies, parking regulations and speed limits, should be current. Only that data needed to address issues to be studied need be collected. These data frequently include some or all of the following.

Traffic-related data:

- Peak period (site and street peaks) turning movement counts (in good weather, usually excluding Mondays and Fridays, when school is in session; otherwise, summer counts are acceptable, but may need to be "seasonally" adjusted);
- Vehicle classification counts (including trucks, buses and cars);
- Adjustment factors to relate count data to design period, such as weekday and seasonal adjustment factors, as well as the design-hour (K) factor and the directional distribution (D) factor; and
- Machine counts to verify peaking characteristics.

Data related to traffic control devices:

- Primary traffic control devices;
- Traffic signs (especially regulatory ones) and pavement markings; and
- Signal operations, phasing and timing.

Data related to roadway and proximity:

- Roadway configurations, geometric features (curves and grades) and lane usage (numbers and types of lanes);
- Availability and location of sidewalks and marked and unmarked crosswalk locations;
- Location of both on- and off-street bicycle facilities;
- Parking regulations;
- Street lighting;
- Driveways (locations, types and traffic control) serving sites across from, or adjacent to, site;
- Transit stop locations; and
- Adjacent land use.

Other data may be needed, depending on the characteristics of both the proposed project and the area in which it will be developed, including the following:

- Posted speed limits;
- Prevailing operating speeds (particularly the 85th percentile speed), if significantly different than speed limits;
- Lane widths;
- Grades on approaches to intersections;
- Amount of right-turn-on-red activity;
- Pavement conditions, including shoulders;
- Street utility information (including luminaire locations);
- Travel times;
- Pedestrian volumes and movements;
- Sidewalk and greenway widths, crosswalk lengths, block lengths and pedestrian numbers and flow rates;
- Bikeway types, bikeway widths and bicyclist numbers, speeds and flow rates;

Trip Generation Handbook

Second Edition

An ITE Recommended Practice



June 2004
Institute of Transportation Engineers

CHAPTER 5

Pass-by, Primary and Diverted Linked Trips

5.1 Background

The trip generation rates and equations contained in *Trip Generation* are derived from actual measurements of traffic generated by individual sites. These rates and equations represent vehicles entering and exiting a site at its driveways. Therefore, these volumes are appropriate for determining the total traffic to be accommodated by site driveways.

The pass-by trip-making phenomenon, if estimated to be significant, should be recognized when examining the traffic impact of a development on the adjacent street system.

There are instances, however, when the total number of trips generated by a site is different from the amount of new traffic **added** to the street system by the generator. For example, retail-oriented developments such as shopping centers, discount stores, restaurants, banks, service stations and convenience markets are often located adjacent to busy streets in order to attract the motorists already on the street. These sites attract a portion of their trips from traffic passing the site on the way from an origin to an ultimate destination. These retail trips **may not add new traffic** to the adjacent street system.

Trip-making can be broken down into two major categories: **pass-by trips** and **non-pass-by trips.** In some traffic impact study applications, it is necessary to further subdivide non-pass-by trips into **primary trips** and **diverted linked** trips. These trip types are illustrated in Figure 5.1 and are defined below.

Types of Trips Generated by a Site

- **Pass-By Trips**
- **Non-Pass-By Trips**
  - **Primary Trips**
  - **Diverted Linked Trips**

Pass-by trips are made as intermediate stops *on the way* from an origin to a primary trip destination without a route diversion. Pass-by trips are attracted from traffic passing the site *on an adjacent street* or roadway that offers direct access to the generator. **Pass-by trips are not diverted from another roadway.**

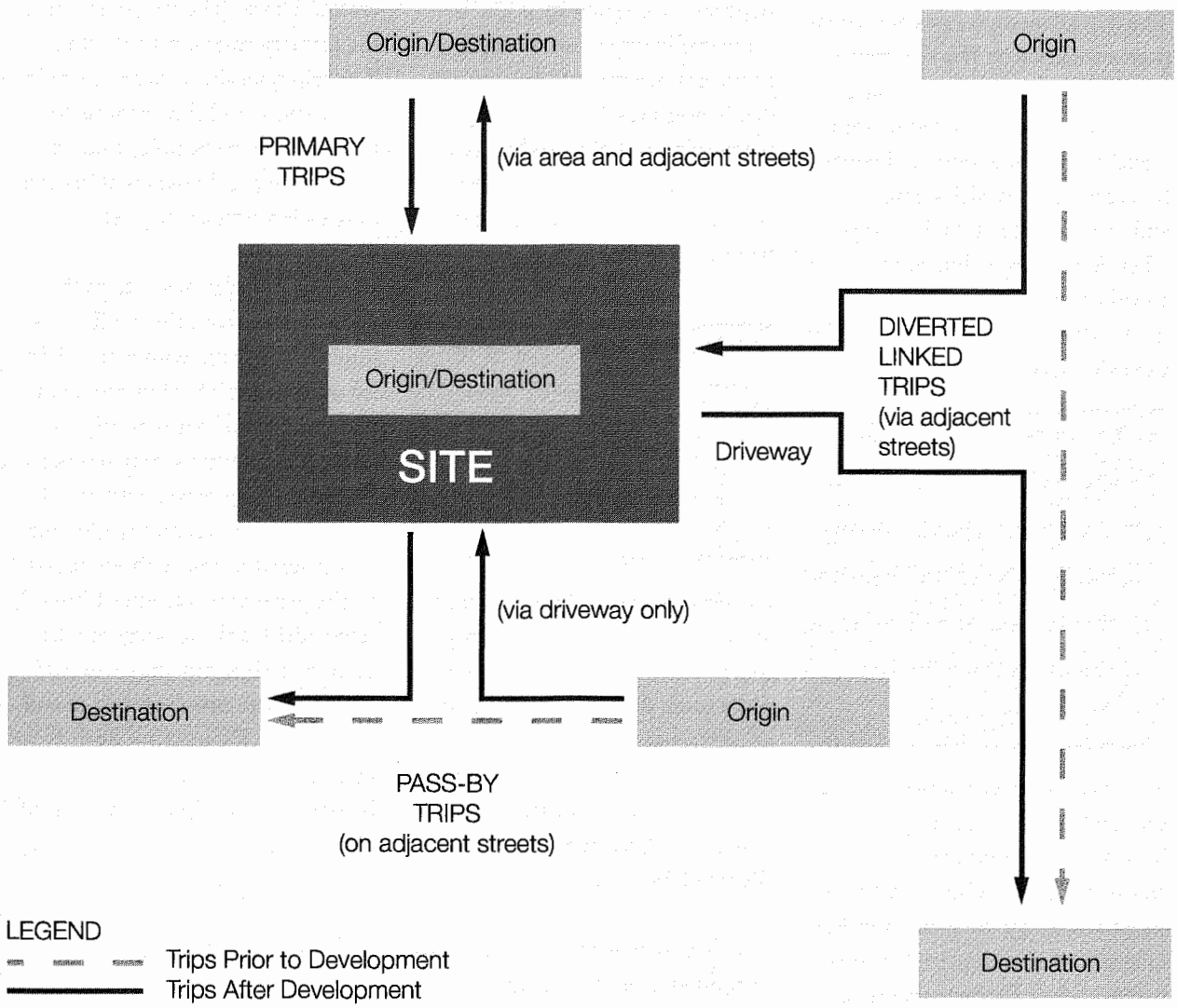
Non-pass-by trips are simply all trips generated by a site that are not pass-by trips. This term is sometimes used when diverted linked trips are not tabulated separately from primary trips.

Pass-by trips do not involve a route diversion to enter the site driveway.

Primary trips are trips made for the specific purpose of visiting the generator. The stop at the generator is the primary reason for the trip. The trip typically goes from origin to generator and then returns to the origin. For example, a home-to-shopping-to-home combination of trips is a primary trip set.

Diverted linked trips are trips that are attracted from the traffic volume on roadways within the vicinity of the generator but require a diversion from that roadway to another roadway to gain access to the site. These trips could travel on highways or freeways adjacent to a generator, but without access to the generator. **Diverted linked trips add traffic to streets adjacent to a site, but may not add traffic to the area's major travel routes** (see Figure 5.1). Both pass-by and diverted linked trips may be part of a multiple-stop chain of trips.

Figure 5.1 Types of Trips



5.2 Sample Application of Pass-By Trip Assignment Process

The objectives in this example are to (1) estimate the number of new trips added to the adjacent street traffic volume with the development of a shopping center with 580,000 sq. ft. of gross leasable area, and (2) determine the turn movements at the shopping center driveway. The forecasted two-way evening peak hour traffic on a street adjacent to the proposed shopping center is 1,200 vehicles, as shown in Figure 5.2(A)—1,000 traveling west and 200 traveling east.

Objective of Assignment Process:

Determine (1) turn movements at a shopping center driveway and (2) trips added to the adjacent street traffic volume.

The shopping center is estimated to generate 2,000 evening peak hour trips (based on the fitted curve equation given for Land Use Code 820 on page 1,453 of *Trip Generation*, Seventh Edition). An assessment of the shopping center parking configuration and access points indicates that an estimated 20 percent of the site-generated traffic will use the driveway being analyzed in this example. Thus, the driveway volume is estimated to be 400 evening peak hour trips (i.e., 20 percent of 2,000 trips). For this example, 50 percent enter and 50 percent exit the shopping center (as shown in Figure 5.2(B)).

From data collected at other shopping centers, it is estimated (in this example) that about 15 percent of the driveway volume is pass-by (Figure 5.2(B)). Therefore, 30 of the inbound vehicles (i.e., 15 percent of 200 vehicles) and 30 of the outbound vehicles are considered pass-by trips.

The assumed trip distribution for the non-pass-by trips is shown in Figure 5.2(C). These values are based on local knowledge of expected trip patterns for primary and diverted linked trips to and from the shopping center (based on existing travel patterns, surrounding land uses, etc.). For example, 80 percent of the non-pass-by trips are expected to arrive from the east and return to the east after the trip to the shopping center.

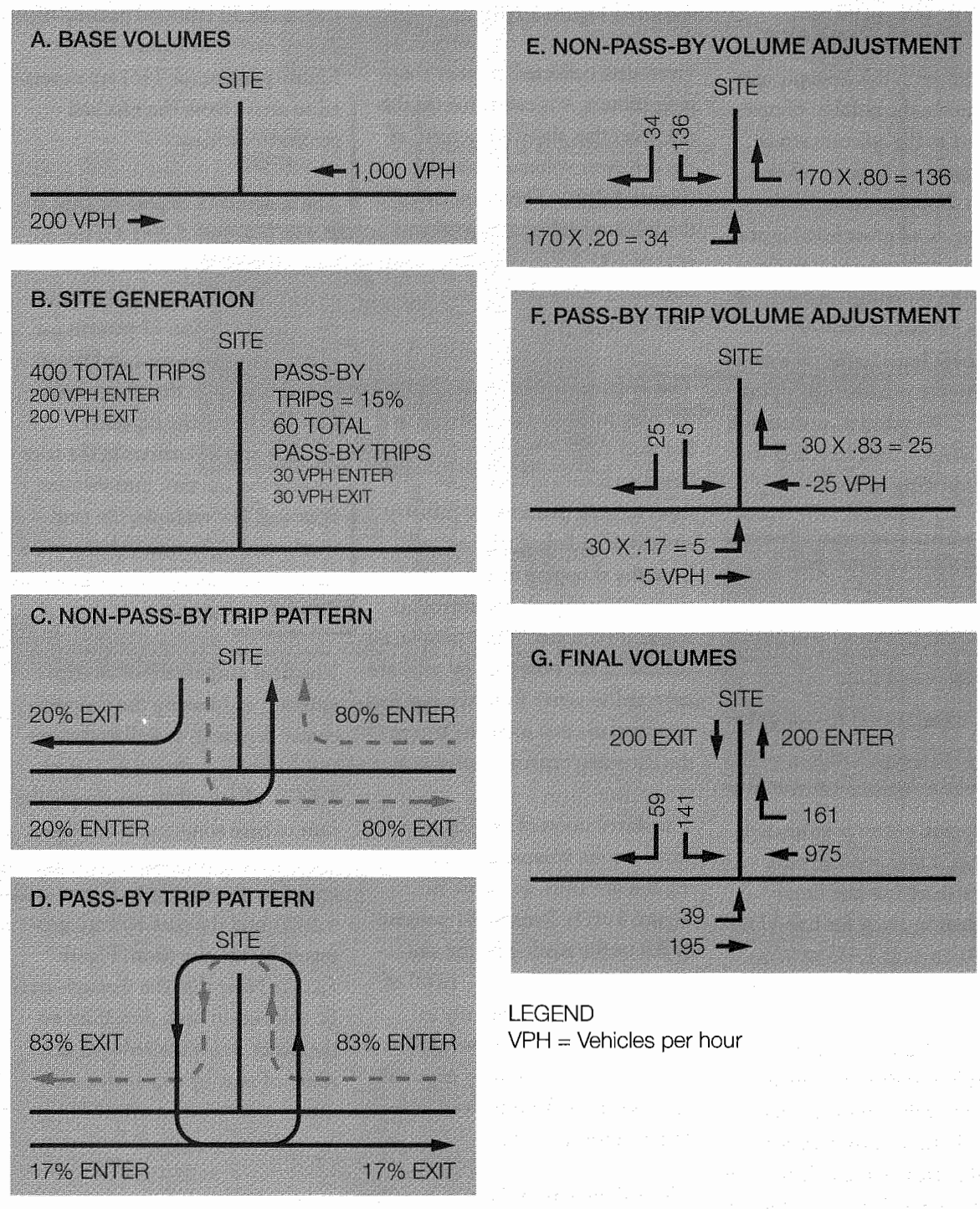
The distribution of pass-by trips is based on the volume of traffic passing the driveway, as shown in Figure 5.2(D). Because 83 percent of the traffic passing by the site comes from the east (i.e., 1,000 of the 1,200 shown previously in Figure 5.2 (A)), it is assumed that 83 percent of the pass-by trips will likewise arrive from the east and depart toward the west.

The assignment of the non-pass-by trips generated by the site is shown in Figure 5.2(E). The total number of non-pass-by trips destined to the site is 170 (200 total trips minus the 30 inbound pass-by trips shown earlier in Figure 5.2(B)). Eighty percent (or 136) are expected to arrive from the east and return to the east.

The assignment of pass-by trips is shown in Figure 5.2(F). Of the 30 pass-by trips, 83 percent (or 25) arrive from the east and depart to the west. Likewise, 17 percent (or 5) arrive from the west and depart to the east. Note that the calculation also shows the expected through-trip reductions as the trips passing the site turn into the new driveway. For example, the new westbound right-turn volume of 25 causes a reduction in the westbound through movement.

The final assignment of all trips entering and leaving the shopping center driveway, as well as passing the driveway, is shown in Figure 5.2(G). These values are simply the sum of base volumes (from Figure 5.2(A)), the non-pass-by trips generated by the site (from Figure 5.2(E)), and the pass-by trips generated by the site (from Figure 5.2(F)). Note that the through-traffic volumes in both directions on the major street are reduced as a result of pass-by trip analysis.

Figure 5.2 Application of Pass-By Trips



LEGEND
VPH = Vehicles per hour

5.3 Cautions

Statistical analysis and correlation of pass-by data collected by the profession continue to evolve. However, due to the limited amount of pass-by data available and the inherent variability in surveyed site characteristics, it has still proven difficult to obtain high correlation indices.

Pass-by trips are closely linked to the size of the development and the volume of traffic on the adjacent street that can deliver the pass-by trip. However, predictive mathematical relationships have been elusive.

Traditional pass-by trip analyses have attempted to correlate pass-by trip percentages (i.e., percentage of the total number of trips generated by a site) with units of occupied site development (such as gross leasable area, gross floor area, seats in a restaurant, or fueling positions at a gas/service station). Limited results for some land uses show that this correlation can be enhanced further by including the magnitude of the traffic passing the site on the adjacent roadways.

The analyst should exercise caution in the use of pass-by and diverted linked data presented in this chapter to ensure that the following aspects of pass-by trip characteristics are handled appropriately in the analysis process.

Diverted linked trips are clearly different from pass-by trips. Diverted linked trips add trips to the adjacent roads at a proposed or expanded site, but may not add trips to nearby major highways or freeways.

Diverted linked trips are often difficult to identify. Therefore, **diverted linked trips should be treated similarly to primary trips** unless: (1) all three (primary, pass-by and diverted linked) categories are being analyzed and processed separately, and (2) the travel routes for diverted linked trips can be clearly established.

Pass-by trips are drawn from the passing traffic stream, **but are always included in site driveway movements.** In traffic analyses, summation of driveway volumes must equal the total external site generation (i.e., the sum of primary, pass-by and diverted linked trips). Pass-by trips are not included in (and thus, subtracted from) the through-volumes passing a given site access point on an adjacent road. Standard methodologies for assessing the traffic impacts of site development typically require that diverted linked trips be included as additional trips within the confines of local impact assessment studies.

In a multi-use development, it is likely that there will be trips internal to the site (refer to Chapter 7 for guidance). Before applying the pass-by reduction, the internal trips should be removed from the total number of trips generated by the multi-use site. **Pass-by trips are only applicable to trips that enter or exit the site, not internal trips.**

Overall, diverted linked trips represent a change in local area travel patterns but constitute no new increase on a *macroscopic* scale. Within the immediate study area, diverted linked trips do represent additional traffic on individual streets and should be analyzed that way.

5.4 Database on Pass-By, Primary and Diverted Linked Trips

Listed in Table 5.1 are 22 land uses for which ITE received and compiled pass-by and diverted linked trip data. The table denotes whether the data are presented in this handbook in a table or a figure (in a data plot similar to those presented in *Trip Generation* for trip end data). Table 5.1 also identifies the time periods for which the data have been reported.

Tables 5.2 through 5.30 present the values for percentage of site generation that is accounted for by pass-by, non-pass-by, primary and diverted linked trips. For those surveys in which non-pass-by percentages are provided, no information was available on the split between primary and diverted linked trips.

Figures 5.3 through 5.16 plot the average *pass-by* trip percentages associated with the various land uses. No plots are provided for *diverted linked* trips. These figures are provided to enable the user to visualize the data scatter provided in Tables 5.2 through 5.30.

Data plots are provided for each land use where nine or more data points are available for a specific independent variable.

For all land uses except shopping centers, data are plotted for only one independent variable. For shopping centers, data are plotted for GLA and peak hour traffic on adjacent streets for the weekday evening peak period; GLA is also used as the independent variable for shopping centers during the midday Saturday time period.

A regression equation is shown on the data plot if there are more than 10 points and the R^2 is greater than 0.25 (which only occurs on two of the Land Use Code 820 data plots). Note that this threshold is less than the 0.5 threshold for R^2 used for data plots in *Trip Generation*.

Recommended guidelines for using the data presented in these figures and tables are provided in Section 5.5 of this chapter. In particular, the guidelines recommend when to use the data and how to select a pass-by percentage.

The pass-by data in Table 5.1 were collected during *peak periods*. These pass-by relationships may differ from those during the *peak hour*.

Users of the data are cautioned that the number and geographic distribution of sites are limited. Little or no data on adjacent street traffic volumes have been collected for uses other than shopping centers. The actual pass-by and diverted linked trip percentages may vary by site due to the specific influences of the characteristics of passing traffic, area roadway network patterns, specific businesses in the site being analyzed, other nearby development and so forth. Surveys of similar developments near the analysis site are encouraged.

Because data are limited for many of the land uses, the analyst is encouraged to collect pass-by trip data and transmit the data to ITE. Section 5.6 of this chapter describes how to collect the appropriate data and provides sample forms to use.

Attachment D

Caltrans Guide



GUIDE FOR THE PREPARATION

OF

TRAFFIC IMPACT STUDIES

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

December 2002

PREFACE

The California Department of Transportation (Caltrans) has developed this "Guide for the Preparation of Traffic Impact Studies" in response to a survey of cities and counties in California. The purpose of that survey was to improve the Caltrans local development review process (also known as the Intergovernmental Review/California Environmental Quality Act or IGR/CEQA process). The survey indicated that approximately 30 percent of the respondents were not aware of what Caltrans required in a traffic impact study (TIS).

In the early 1990s, the Caltrans District 6 office located in Fresno identified a need to provide better quality and consistency in the analysis of traffic impacts generated by local development and land use change proposals that effect State highway facilities. At that time, District 6 brought together both public and private sector expertise to develop a traffic impact study guide. The District 6 guide has proven to be successful at promoting consistency and uniformity in the identification and analysis of traffic impacts generated by local development and land use changes.

The guide developed in Fresno was adapted for statewide use by a team of Headquarters and district staff. The guide will provide consistent guidance for Caltrans staff who review local development and land use change proposals as well as inform local agencies of the information needed for Caltrans to analyze the traffic impacts to State highway facilities. The guide will also benefit local agencies and the development community by providing more expeditious review of local development proposals.

Even though sound planning and engineering practices were used to adapt the Fresno TIS guide, it is anticipated that changes will occur over time as new technologies and more efficient practices become available. To facilitate these changes, Caltrans encourages all those who use this guide to contact their nearest district office (i.e., IGR/CEQA Coordinator) to coordinate any changes with the development team.

ACKNOWLEDGEMENTS

The District 6 traffic impact study guide provided the impetus and a starting point for developing the statewide guide. Special thanks is given to Marc Birnbaum for recognizing the need for a TIS guide and for his valued experience and vast knowledge of land use planning to significantly enhance the effort to adapt the District 6 guide for statewide use. Randy Treece from District 6 provided many hours of coordination, research and development of the original guide and should be commended for his diligent efforts. Sharri Bender Ehlert of District 6 provided much of the technical expertise in the adaptation of the District 6 guide and her efforts are greatly appreciated.

A special thanks is also given to all those Cities, Counties, Regional Agencies, Congestion Management Agencies, Consultants, and Caltrans Employees who reviewed the guide and provided input during the development of this Guide for the Preparation of Traffic Impact Studies.

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Appendix "A" Minimum Contents of Traffic Impact Study
Appendix "B" Methodology for Calculating Equitable Mitigation Measures
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I. INTRODUCTION

Caltrans desires to provide a safe and efficient State transportation system for the citizens of California pursuant to various Sections of the California Streets and Highway Code. This is done in partnership with local and regional agencies through procedures established by the California Environmental Quality Act (CEQA) and other land use planning processes. The intent of this guide is to provide a starting point and a consistent basis in which Caltrans evaluates traffic impacts to State highway facilities. The applicability of this guide for local streets and roads (non-State highways) is at the discretion of the effected jurisdiction.

Caltrans reviews federal, State, and local agency development projects[1], and land use change proposals for their potential impact to State highway facilities. The primary objectives of this guide is to provide:

- guidance in determining if and when a traffic impact study (TIS) is needed,
- consistency and uniformity in the identification of traffic impacts generated by local land use proposals,
- consistency and equity in the identification of measures to mitigate the traffic impacts generated by land use proposals,
- lead agency[2] officials with the information necessary to make informed decisions regarding the existing and proposed transportation infrastructure (see Appendix A, Minimum Contents of a TIS)
- TIS requirements early in the planning phase of a project (i.e., initial study, notice of preparation, or earlier) to eliminate potential delays later,
- a quality TIS by agreeing to the assumptions, data requirements, study scenarios, and analysis methodologies prior to beginning the TIS, and
- early coordination during the planning phases of a project to reduce the time and cost of preparing a TIS.

II. WHEN A TRAFFIC IMPACT STUDY IS NEEDED

The level of service[3] (LOS) for operating State highway facilities is based upon measures of effectiveness (MOEs). These MOEs (see Appendix "C-2") describe the measures best suited for analyzing State highway facilities (i.e., freeway segments, signalized intersections, on- or off-ramps, etc.). Caltrans endeavors to maintain a target LOS at the transition between LOS "C" and LOS "D" (see Appendix "C-3") on State highway facilities, however, Caltrans acknowledges that this may not always be feasible and recommends that the lead agency consult with Caltrans to determine the appropriate target LOS. If an existing State highway facility is operating at less than the appropriate target LOS, the existing MOE should be maintained.

---

[1] "Project" refers to activities directly undertaken by government, financed by government, or requiring a permit or other approval from government as defined in Section 21065 of the Public Resources Code and Section 15378 of the California Code of Regulations.

[2] "Lead Agency" refers to the public agency that has the principal responsibility for carrying out or approving a project. Defined in Section 21165 of the Public Resources Code, the "California Environmental Quality Act, and Section 15367 of the California Code of Regulations.

[3] "Level of service" as defined in the latest edition of the Highway Capacity Manual, Transportation Research Board, National Research Council.

A. Trip Generation Thresholds

The following criterion is a starting point in determining when a TIS is needed. When a project:

1. Generates over 100 peak hour trips assigned to a State highway facility
2. Generates 50 to 100 peak hour trips assigned to a State highway facility – and, affected State highway facilities are experiencing noticeable delay; approaching unstable traffic flow conditions (LOS "C" or "D").
3. Generates 1 to 49 peak hour trips assigned to a State highway facility – the following are examples that may require a full TIS or some lesser analysis[4]:
    a. Affected State highway facilities experiencing significant delay; unstable or forced traffic flow conditions (LOS "E" or "F").
    b. The potential risk for a traffic incident is significantly increased (i.e., congestion related collisions, non-standard sight distance considerations, increase in traffic conflict points, etc.).
    c. Change in local circulation networks that impact a State highway facility (i.e., direct access to State highway facility, a non-standard highway geometric design, etc.).

Note: A traffic study may be as simple as providing a traffic count to as complex as a microscopic simulation. The appropriate level of study is determined by the particulars of a project, the prevailing highway conditions, and the forecasted traffic.

B. Exceptions

Exceptions require consultation between the lead agency, Caltrans, and those preparing the TIS. When a project's traffic impact to a State highway facility can clearly be anticipated without a study and all the parties involved (lead agency, developer, and the Caltrans district office) are able to negotiate appropriate mitigation, a TIS may not be necessary.

C. Updating An Existing Traffic Impact Study

A TIS requires updating when the amount or character of traffic is significantly different from an earlier study. Generally a TIS requires updating every two years. A TIS may require updating sooner in rapidly developing areas and not as often in slower developing areas. In these cases, consultation with Caltrans is strongly recommended.

III. SCOPE OF TRAFFIC IMPACT STUDY

Consultation between the lead agency, Caltrans, and those preparing the TIS is recommended before commencing work on the study to establish the appropriate scope. At a minimum, the TIS should include the following:

A. Boundaries of the Traffic Impact Study

All State highway facilities impacted in accordance with the criteria in Section II should be studied. Traffic impacts to local streets and roads can impact intersections with State highway facilities. In these cases, the TIS should include an analysis of adjacent local facilities, upstream and downstream, of the intersection (i.e., driveways, intersections, and interchanges) with the State highway.

[4] A "lesser analysis" may include obtaining traffic counts, preparing signal warrants, or a focused TIS, etc.

B. Traffic Analysis Scenarios

Caltrans is interested in the effects of general plan updates and amendments as well as the effects of specific project entitlements (i.e., site plans, conditional use permits, sub-divisions, rezoning, etc.) that have the potential to impact a State highway facility. The complexity or magnitude of the impacts of a project will normally dictate the scenarios necessary to analyze the project. Consultation between the lead agency, Caltrans, and those preparing the TIS is recommended to determine the appropriate scenarios for the analysis. The following scenarios should be addressed in the TIS when appropriate:

1. When only a general plan amendment or update is being sought, the following scenarios are required:
   a) Existing Conditions - Current year traffic volumes and peak hour LOS analysis of effected State highway facilities.
   b) Proposed Project Only with Select Zone[5] Analysis - Trip generation and assignment for build-out of general plan.
   c) General Plan Build-out Only - Trip assignment and peak hour LOS analysis. Include current land uses and other pending general plan amendments.
   d) General Plan Build-out Plus Proposed Project - Trip assignment and peak hour LOS analysis. Include proposed project and other pending general plan amendments.

2. When a general plan amendment is not proposed and a proposed project is seeking specific entitlements (i.e., site plans, conditional use permits, sub-division, rezoning, etc.), the following scenarios must be analyzed in the TIS:
   a) Existing Conditions - Current year traffic volumes and peak hour LOS analysis of effected State highway facilities.
   b) Proposed Project Only - Trip generation, distribution, and assignment in the year the project is anticipated to complete construction.
   c) Cumulative Conditions (Existing Conditions Plus Other Approved and Pending Projects Without Proposed Project) - Trip assignment and peak hour LOS analysis in the year the project is anticipated to complete construction.
   d) Cumulative Conditions Plus Proposed Project (Existing Conditions Plus Other Approved and Pending Projects Plus Proposed Project) - Trip assignment and peak hour LOS analysis in the year the project is anticipated to complete construction.
   e) Cumulative Conditions Plus Proposed Phases (Interim Years) - Trip assignment and peak hour LOS analysis in the years the project phases are anticipated to complete construction.
3. In cases where the circulation element of the general plan is not consistent with the land use element or the general plan is outdated and not representative of current or future forecasted conditions, all scenarios from Sections III. B. 1. and 2. should be utilized with the exception of duplicating of item 2.a.

[5] "Select zone" analysis represents a project only traffic model run, where the project's trips are distributed and assigned along a loaded highway network. This procedure isolates the specific impact on the State highway network.

IV. TRAFFIC DATA

Prior to any fieldwork, consultation between the lead agency, Caltrans, and those preparing the TIS is recommended to reach consensus on the data and assumptions necessary for the study. The following elements are a starting point in that consideration.

A. Trip Generation

The latest edition of the Institute of Transportation Engineers' (ITE) TRIP GENERATION report should be used for trip generation forecasts. Local trip generation rates are also acceptable if appropriate validation is provided to support them.

1. Trip Generation Rates – When the land use has a limited number of studies to support the trip generation rates or when the Coefficient of Determination (R^2) is below 0.75, consultation between the lead agency, Caltrans and those preparing the TIS is recommended.
2. Pass-by Trips[6] – Pass-by trips are only considered for retail oriented development. Reductions greater than 15% requires consultation and acceptance by Caltrans. The justification for exceeding a 15% reduction should be discussed in the TIS.
3. Captured Trips[7] – Captured trip reductions greater than 5% requires consultation and acceptance by Caltrans. The justification for exceeding a 5% reduction should be discussed in the TIS.
4. Transportation Demand Management (TDM) – Consultation between the lead agency and Caltrans is essential before applying trip reduction for TDM strategies.

NOTE: Reasonable reductions to trip generation rates are considered when adjacent State highway volumes are sufficient (at least 5000 ADT) to support reductions for the land use.

B. Traffic Counts

Prior to field traffic counts, consultation between the lead agency, Caltrans and those preparing the TIS is recommended to determine the level of detail (e.g., location, signal timing, travel speeds, turning movements, etc.) required at each traffic count site. All State highway facilities within the boundaries of the TIS should be considered. Common rules for counting vehicular traffic include but are not limited to:

1. Vehicle counts should be conducted on Tuesdays, Wednesdays, or Thursdays during weeks not containing a holiday and conducted in favorable weather conditions.
2. Vehicle counts should be conducted during the appropriate peak hours (see peak hour discussion below).
3. Seasonal and weekend variations in traffic should also be considered where appropriate (i.e., recreational routes, tourist attractions, harvest season, etc.).

C. Peak Hours

To eliminate unnecessary analysis, consultation between the lead agency, Caltrans and those preparing the TIS is recommended during the early planning stages of a project. In general, the TIS should include a morning (a.m.) and an evening (p.m.) peak hour analyses. Other peak hours (e.g., 11:30 a.m. to 1:30 p.m., weekend, holidays, etc.) may also be required to determine the significance of the traffic impacts generated by a project.

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[6] "Pass-by" trips are made as intermediate stops between an origin and a primary trip destination (i.e., home to work, home to shopping, etc.).

[7] "Captured Trips" are trips that do not enter or leave the driveways of a project's boundary within a mixed-use development.

D. Travel Forecasting (Transportation Modeling)

The local or regional traffic model should reflect the most current land use and planned improvements (i.e., where programming or funding is secured). When a general plan build-out model is not available, the closest forecast model year to build-out should be used. If a traffic model is not available, historical growth rates and current trends can be used to project future traffic volumes. The TIS should clearly describe any changes made in the model to accommodate the analysis of a proposed project.

V. TRAFFIC IMPACT ANALYSIS METHODOLOGIES

Typically, the traffic analysis methodologies for the facility types indicated below are used by Caltrans and will be accepted without prior consultation. When a State highway has saturated flows, the use of a micro-simulation model is encouraged for the analysis (please note however, the micro-simulation model must be calibrated and validated for reliable results). Other analysis methods may be accepted, however, consultation between the lead agency, Caltrans and those preparing the TIS is recommended to agree on the data necessary for the analysis.

A. Freeway Segments – Highway Capacity Manual (HCM)*, operational analysis
B. Weaving Areas – Caltrans Highway Design Manual (HDM)
C. Ramps and Ramp Junctions – HCM*, operational analysis or Caltrans HDM, Caltrans Ramp Metering Guidelines (most recent edition)
D. Multi-Lane Highways – HCM*, operational analysis
E. Two-lane Highways – HCM*, operational analysis
F. Signalized Intersections[8] – HCM*, Highway Capacity Software**, operational analysis, TRAFFIX™**, Synchro**, see footnote 8
G. Unsignalized Intersections – HCM*, operational analysis, Caltrans Traffic Manual for signal warrants if a signal is being considered
H. Transit – HCM*, operational analysis
I. Pedestrians – HCM*
J. Bicycles – HCM*
K. Caltrans Criteria/Warrants – Caltrans Traffic Manual (stop signs, traffic signals, freeway lighting, conventional highway lighting, school crossings)
L. Channelization – Caltrans guidelines for Reconstruction of Intersections, August 1985, Ichiro Fukutome

*The most current edition of the Highway Capacity Manual, Transportation Research Board, National Research Council, should be used.

****NOTE**: Caltrans does not officially advocate the use of any special software. However, consistency with the HCM is advocated in most but not all cases. The Caltrans local development review units utilize the software mentioned above. If different software or analytical techniques are used for the TIS then consultation between the lead agency, Caltrans and those preparing the TIS is recommended. Results that are significantly different than those produced with the analytical techniques above should be challenged.

[8] The procedures in the Highway Capacity Manual "do not explicitly address operations of closely spaced signalized intersections. Under such conditions, several unique characteristics must be considered, including spill-back potential from the downstream intersection to the upstream intersection, effects of downstream queues on upstream saturation flow rate, and unusual platoon dispersion or compression between intersections. An example of such closely spaced operations is signalized ramp terminals at urban interchanges. Queue interactions between closely spaced intersections may seriously distort the procedures in" the HCM.

VI. MITIGATION MEASURES

The TIS should provide the nexus [Nollan v. California Coastal Commission, 1987, 483 U.S. 825 (108 S.Ct. 314)] between a project and the traffic impacts to State highway facilities. The TIS should also establish the rough proportionality [Dolan v. City of Tigard, 1994, 512 U.S. 374 (114 S. Ct. 2309)] between the mitigation measures and the traffic impacts. One method for establishing the rough proportionality or a project proponent's equitable responsibility for a project's impacts is provided in Appendix "B." Consultation between the lead agency, Caltrans and those preparing the TIS is recommended to reach consensus on the mitigation measures and who will be responsible.

Mitigation measures must be included in the traffic impact analysis. This determines if a project's impacts can be eliminated or reduced to a level of insignificance. Eliminating or reducing impacts to a level of insignificance is the standard pursuant to CEQA and the National Environmental Policy Act (NEPA). The lead agency is responsible for administering the CEQA review process and has the principal authority for approving a local development proposal or land use change. Caltrans, as a responsible agency, is responsible for reviewing the TIS for errors and omissions that pertain to State highway facilities. However, the authority vested in the lead agency under CEQA does not take precedence over other authorities in law.

If the mitigation measures require work in the State highway right-of-way an encroachment permit from Caltrans will be required. This work will also be subject to Caltrans standards and specifications. Consultation between the lead agency, Caltrans and those preparing the TIS early in the planning process is strongly recommended to expedite the review of local development proposals and to reduce conflicts and misunderstandings in both the local agency CEQA review process as well as the Caltrans encroachment permit process.

APPENDIX "A"

MINIMUM CONTENTS

OF A

TRAFFIC IMPACT STUDY

MINIMUM CONTENTS OF TRAFFIC IMPACT STUDY REPORT

I. EXECUTIVE SUMMARY

II. TABLE OF CONTENTS

A. List of Figures (Maps)
B. List of Tables

III. INTRODUCTION

A. Description of the proposed project
B. Location of project
C. Site plan including all access to State highways (site plan, map)
D. Circulation network including all access to State highways (vicinity map)
E. Land use and zoning
F. Phasing plan including proposed dates of project (phase) completion
G. Project sponsor and contact person(s)
H. References to other traffic impact studies

IV. TRAFFIC ANALYSIS

A. Clearly stated assumptions
B. Existing and projected traffic volumes (including turning movements), facility geometry (including storage lengths), and traffic controls (including signal phasing and multi-signal progression where appropriate) (figure)
C. Project trip generation including references (table)
D. Project generated trip distribution and assignment (figure)
E. LOS and warrant analyses - existing conditions, cumulative conditions, and full build of general plan conditions with and without project

V. CONCLUSIONS AND RECOMMENDATIONS

A. LOS and appropriate MOE quantities of impacted facilities with and without mitigation measures
B. Mitigation phasing plan including dates of proposed mitigation measures
C. Define responsibilities for implementing mitigation measures
D. Cost estimates for mitigation measures and financing plan

VI. APPENDICES

A. Description of traffic data and how data was collected
B. Description of methodologies and assumptions used in analyses
C. Worksheets used in analyses (i.e., signal warrant, LOS, traffic count information, etc.)

APPENDIX "B"

METHODOLOGY FOR

CALCULATING EQUITABLE

MITIGATION MEASURES

METHOD FOR CALCULATING EQUITABLE MITIGATION MEASURES

The methodology below is neither intended as, nor does it establish, a legal standard for determining equitable responsibility and cost of a project's traffic impact, the intent is to provide:

1. A starting point for early discussions to address traffic mitigation equitably.
2. A means for calculating the equitable share for mitigating traffic impacts.
3. A means for establishing rough proportionality [Dolan v. City of Tigard, 1994, 512 U.S. 374 (114 S. Ct. 2309)].

The formulas should be used when:

- A project has impacts that do not immediately warrant mitigation, but their cumulative effects are significant and will require mitigating in the future.
- A project has an immediate impact and the lead agency has assumed responsibility for addressing operational improvements

NOTE: This formula is not intended for circumstances where a project proponent will be receiving a substantial benefit from the identified mitigation measures. In these cases, (e.g., mid-block access and signalization to a shopping center) the project should take full responsibility to toward providing the necessary infrastructure.

EQUITABLE SHARE RESPONSIBILITY: **Equation C-1**

NOTE: $T_E < T_B$, see explanation for T_B below.

$$P = \frac{T}{T_B - T_E}$$

Where:

P = The equitable share for the proposed project's traffic impact.

T = The vehicle trips generated by the project during the peak hour of adjacent State highway facility in vehicles per hour, vph.

T_B = The forecasted traffic volume on an impacted State highway facility at the time of general plan build-out (e.g., 20 year model or the furthest future model date feasible), vph.

T_E = The traffic volume existing on the impacted State highway facility plus other approved projects that will generate traffic that has yet to be constructed/opened, vph.

EQUITABLE COST: **Equation C-2**

$$C = P\ (C_T)$$

Where:

C = The equitable cost of traffic mitigation for the proposed project, ($). (Rounded to nearest one thousand dollars)

P = The equitable share for the project being considered.

C_T = The total cost estimate for improvements necessary to mitigate the forecasted traffic demand on the impacted State highway facility in question at general plan build-out, ($).

NOTES

1. Once the equitable share responsibility and equitable cost has been established on a per trip basis, these values can be utilized for all projects on that State highway facility until the forecasted general plan build-out model is revised.
2. Truck traffic should be converted to passenger car equivalents before utilizing these equations (see the Highway Capacity Manual for converting to passenger car equivalents).

3. If the per trip cost is not used for all subsequent projects, then the equation below will be necessary to determine the costs for individual project impact and will require some additional accounting.

Equation C-2.A

$$C = P\,(C_T - C_C)$$

Where:

C = Same as equation C-2.

P = Same as equation C-2.

C_T = Same as equation C-2.

C_C = The combined dollar contributions paid and committed prior to current project's contribution. This is necessary to provide the appropriate cost proportionality. Example: For the first project to impact the State highway facility in question since the total cost (C_T) estimate for improvements necessary to mitigate the forecasted traffic demand, C_C would be equal to zero. For the second project however, C would equal $P_2(C_T - C_1)$ and for the third project to come along C would equal $P_3[C_T - (C_1 + C_2)]$ and so on until build-out or the general plan build-out was recalculated.

APPENDIX "C"

MEASURES OF EFFECTIVENESS

BY

FACILITY TYPE

MEASURES OF EFFECTIVENESS BY FACILITY TYPE

TYPE OF FACILITY	MEASURE OF EFFECTIVENESS (MOE)
Basic Freeway Segments	Density (pc/mi/ln)
Ramps	Density (pc/mi/ln)
Ramp Terminals	Delay (sec/veh)
Multi-Lane Highways	Density (pc/mi/ln)
Two-Lane Highways	Percent-Time-Following Average Travel Speed (mi/hr)
Signalized Intersections	Control Delay per Vehicle (sec/veh)
Unsignalized Intersections	Average Control Delay per Vehicle (sec/veh)
Urban Streets	Average Travel Speed (mi/hr)

Measures of effectiveness for level of service definitions located in the most recent version of the Highway Capacity Manual, Transportation Research Board, National Research Council.

Transition between LOS "C" and LOS "D" Criteria

(Reference Highway Capacity Manual)

BASIC FREEWAY SEGMENTS @ 65 mi/hr

LOS	Maximum Density (pc/mi/ln)	Minimum Speed (mph)	Maximum v/c	Maximum Service Flow Rate (pc/hr/ln)
A	11	65.0	0.30	710
B	18	65.0	0.50	1170
C	26	64.6	0.71	1680
D	35	59.7	0.89	2090
E	45	52.2	1.00	2350

SIGNALIZED INTERSECTIONS and RAMP TERMINALS

LOS	Control Delay per Vehicle (sec/veh)
A	≤ 10
B	> 10 - 20
C	> 20 - 35
D	> 35 - 55
E	> 55 - 80
F	> 80

MULTI-LANE HIGHWAYS @ 55 mi/hr

LOS	Maximum Density (pc/mi/ln)	Minimum Speed (mph)	Maximum v/c	Maximum Service Flow Rate (pc/hr/ln)
A	11	55.0	0.29	600
B	18	55.0	0.47	990
C	26	54.9	0.68	1430
D	35	52.9	0.88	1850
E	41	51.2	1.00	2100

Dotted line represents the transition between LOS "C" and LOS "D"

TWO-LANE HIGHWAYS

LOS	Percent Time-Spent-Following	Average Travel Speed (mi/hr)
A	35	> 55
B	> 35 - 50	> 50 - 55
C	> 50 - 65	> 45 - 50
D	> 65 - 80	> 40 - 45
E	> 80	40

URBAN STREETS

Urban Street Class	I	II	III	IV
Range of FFS	55 to 45 mi/hr	45 to 35 mi/hr	35 to 30 mi/hr	35 to 25 mi/hr
Typical FFS	50 mi/hr	40 mi/hr	35 mi/hr	30 mi/hr
LOS	Average Travel Speed (mi/hr)			
A	> 42	> 35	> 30	> 25
B	> 34 - 42	> 28 - 35	> 24 - 30	> 19 - 25
C	> 27 - 34	> 22 - 28	> 18 - 24	> 13 - 19
D	> 21 - 27	> 17 - 22	> 14 - 18	> 9 - 13
E	> 16 - 21	> 13 - 17	> 10 - 14	> 7 - 9
F	16	13	10	7

Dotted line represents the transition between LOS "C" and LOS "D"

GRAY DAVIS
Governor

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Additional copies of these guidelines can be copied from the internet at,
http://www.dot.ca.gov/hq/traffops/developserv/operationalsystems/

Attachment E

2010 LAMTA Congestion Management Program

Los Angeles County
Metropolitan Transportation Authority

2010 CONGESTION MANAGEMENT PROGRAM









2010

Congestion Management Program

Los Angeles County Metropolitan Transportation Authority



C&R-436

APPENDIX

A

GUIDELINES FOR BIENNIAL HIGHWAY MONITORING

These instructions are intended to assist local agencies in biennially conducting and submitting monitoring of the CMP highway system to MTA. These guidelines will be reviewed biennially and adjustments made as appropriate.

A.1 SUBMITTAL REQUIREMENTS

The following information must be transmitted to MTA as part of biennial monitoring of CMP arterials. Each of these elements is described in detail below. An example submittal is included as Exhibit A-1.

- Letter of Transmittal - including a summary of results and contact person;
- Peak Period Traffic Volumes - turning movements in 15-minute increments;
- Physical Description - including lane configurations and signal phasing; and,
- Level of Service Worksheets.

A.2 BIENNIAL HIGHWAY MONITORING SCHEDULE (odd-numbered years)

May 31st	Counts for the current year's report must be completed by this date and be less than one year old.
June 15th	Deadline for submittal of monitoring results to MTA.
Sept 1st	Deadline for adoption of the local jurisdiction's Resolution of CMP Self-Certification (see Appendix E)
February	Local conformance finding by MTA Board.

A.3 MONITORING LOCATIONS AND RESPONSIBLE AGENCIES

Exhibit A-2 provides a list of locations (stations) to be monitored, agencies responsible for conducting annual monitoring, and a summary of the most recent results. These stations will be reviewed periodically. Any proposed revision to the list of monitoring stations must be consistent with the following criteria:

- Intersections of two (or more) CMP arterials will be monitored.
- Monitoring locations should be capacity-constraining (e.g., "bottleneck") intersections with major cross streets such as major arterials, secondary arterials or freeway ramps.

- A maximum spacing of roughly two miles must be maintained between stations. For rural highways, spacing may be increased if traffic volumes and capacity are consistent over greater distances.

Redesignation of the responsible agency will only be accepted if recommended to MTA by the agency assuming responsibility.

A.4 TRAFFIC COUNT REQUIREMENTS

- Traffic counts included in the local jurisdiction's Highway Monitoring Report must be less than one year old as of May 31 of each monitored (odd-numbered) year.
- Traffic counts must be taken on Tuesdays, Wednesdays or Thursdays (these need not be consecutive days).
- Traffic counts must exclude holidays, and the first weekdays before and after the holiday.
- Traffic counts must be taken on days when local schools or colleges are in session.
- Traffic counts must be taken on days of good weather, and avoid atypical conditions (e.g., road construction, detours, or major traffic incidents).
- Traffic counts must be taken on two days and a third day of counts may be required (see Section A.7 Acceptable Variation of Results).
- Traffic counts must be taken for both the AM and PM peak period.
- Unless demonstrated otherwise by actual local conditions, peak period traffic counts will include the periods 7-9 AM and 4-6 PM.
- The local agency must contact MTA if current conditions prevent the collection of representative count data during the required period (for example, major construction lasting over a year).

Local agencies are encouraged to include counts at CMP stations within the scope of other ongoing studies (see Appendix D, Guidelines for CMP Transportation Impact Analysis).

A.5 PHYSICAL DESCRIPTIONS

Existing lane configurations and signal phasing must be diagrammed for each monitoring location. Simple schematic diagrams are adequate. An example is provided in Exhibit A-1 and a blank diagram form is included in Exhibit A-3. Agencies may use traffic signal plans, signing & striping plans or aerial photographs if desired; however if used, these must clearly indicate the permitted movements for each lane. Submit such plans or diagrams on 8½" x 11" sheets.

If commute-period parking prohibition, turn restrictions, or other peak period operational controls are used to increase traffic capacity, the hours and days of the restrictions must be indicated.

A.6 INTERSECTION LEVEL OF SERVICE CALCULATIONS

The CMP for Los Angeles County requires use of the Intersection Capacity Utilization (ICU) method to calculate volume-to-capacity (V/C) ratios and levels of service (LOS). The parameters include:

Capacity: 1,600 vehicles/lane for all through and turn lanes
2,880 total for dual turn lanes

Clearance: 0.10 (no phasing adjustment)

Adjustments for exclusive + optional turn lanes, right-turns on red, and other factors are left to the discretion of local agencies to reflect observed operations; however, these adjustments must be applied consistently each year. To facilitate preparation and for MTA review, Exhibit A-3 provides the preferred format for submission of ICU calculations. Levels of service must be assigned based on overall intersection V/C ratios as shown below.

V/C Ratio	LOS
0.00 - 0.60	A
> 0.60 - 0.70	B
> 0.70 - 0.80	C
> 0.80 - 0.90	D
> 0.90 - 1.00	E
> 1.00 – 1.25	F(0)
> 1.25 - 1.35	F(1)
> 1.35 - 1.45	F(2)
> 1.45	F(3)

Agencies computing intersection LOS using the Circular 212 (Critical Movement Analysis) method may report calculations using the following conversion:

- For dual turn lanes, calculations should indicate that 55% of the turning volume is assigned to the heavier lane for establishing the critical volume.
- Intersection V/C should be calculated by dividing the Sum of Critical Volumes by 1,600, and adding 0.10.
- Intersection LOS should be determined using the table above.

Agencies who prefer to use the Highway Capacity Software (HCS) or something other than the 2000 Highway Capacity Manual software packages may submit output, modified to reflect the following sequence of calculations (or equivalent):

- **INPUT WORKSHEET:** Counted peak hour volumes should be entered; set all peak hour factors (PHF) = 1.00.
- **VOLUME ADJUSTMENT WORKSHEET:** Lane Utilization Factors (Column 9: U) must be set = 1.00.
- **SATURATION FLOW ADJUSTMENT WORKSHEET:** For each lane group, set the Adjusted Saturation Flow Rates (Column 13: s) = 1,600 x No. of Lanes, or 2,880 for dual LT lanes.
- **CAPACITY ANALYSIS WORKSHEET:** Sum CRITICAL Flow Ratios (Column 5: v/s), divide by 1,600 and add 0.10. Intersection LOS should be determined using the table above.

A.7 ACCEPTABLE VARIATION OF RESULTS

Compare the two AM period counts. Do the same for the PM data. The volume to capacity (V/C) computations resulting from the two days of traffic counts should not vary more than 0.08 for either peak hour period. Please note the following:

- Report the average V/C ratio for the two days of counts if the variation in V/C is less than 0.08, and the average V/C ratio is less than or equal to 0.90 (LOS A-E).
- If the V/C ratios vary more than 0.08 and the resulting V/C ratio is at LOS F, **a third day of counts is required for the respective peak period.**
- In reporting LOS using three days of counts, take either the average of the three counts, or exclude the most divergent V/C and take the average of the two remaining days' counts.
- Local agencies are responsible for reviewing the accuracy of the count data and V/C calculations.

APPENDIX

D

GUIDELINES FOR CMP TRANSPORTATION IMPACT ANALYSIS

Important Notice to User: This section provides detailed travel statistics for the Los Angeles area which will be updated on an ongoing basis. Updates will be distributed to all local jurisdictions when available. In order to ensure that impact analyses reflect the best available information, lead agencies may also contact MTA at the time of study initiation. Please contact MTA staff to request the most recent release of "Baseline Travel Data for CMP TIAs."

D.1 OBJECTIVE OF GUIDELINES

The following guidelines are intended to assist local agencies in evaluating impacts of land use decisions on the Congestion Management Program (CMP) system, through preparation of a regional transportation impact analysis (TIA). The following are the basic objectives of these guidelines:

- Promote consistency in the studies conducted by different jurisdictions, while maintaining flexibility for the variety of project types which could be affected by these guidelines.
- Establish procedures which can be implemented within existing project review processes and without ongoing review by MTA.
- Provide guidelines which can be implemented immediately, with the full intention of subsequent review and possible revision.

These guidelines are based on specific requirements of the Congestion Management Program, and travel data sources available specifically for Los Angeles County. References are listed in Section D.10 which provide additional information on possible methodologies and available resources for conducting TIAs.

D.2 GENERAL PROVISIONS

Exhibit D-7 provides the model resolution that local jurisdictions adopted containing CMP TIA procedures in 1993. TIA requirements should be fulfilled within the existing environmental review process, extending local traffic impact studies to include impacts to the regional system. In order to monitor activities affected by these requirements, Notices of Preparation (NOPs) must be submitted to MTA as a responsible agency. Formal MTA approval of individual TIAs is not required.

The following sections describe CMP TIA requirements in detail. In general, the competing objectives of consistency & flexibility have been addressed by specifying standard, or minimum, requirements and requiring documentation when a TIA varies from these standards.

D.3 PROJECTS SUBJECT TO ANALYSIS

In general a CMP TIA is required for all projects required to prepare an Environmental Impact Report (EIR) based on local determination. A TIA is not required if the lead agency for the EIR finds that traffic is not a significant issue, and does not require local or regional traffic impact analysis in the EIR. Please refer to Chapter 5 for more detailed information.

CMP TIA guidelines, particularly intersection analyses, are largely geared toward analysis of projects where land use types and design details are known. Where likely land uses are not defined (such as where project descriptions are limited to zoning designation and parcel size with no information on access location), the level of detail in the TIA may be adjusted accordingly. This may apply, for example, to some redevelopment areas and citywide general plans, or community level specific plans. In such cases, where project definition is insufficient for meaningful intersection level of service analysis, CMP arterial segment analysis may substitute for intersection analysis.

D.4 STUDY AREA

The geographic area examined in the TIA must include the following, at a minimum:

- ❑ All CMP arterial monitoring intersections, including monitored freeway on- or off-ramp intersections, where the proposed project will add 50 or more trips during either the AM or PM weekday peak hours (of adjacent street traffic).
- ❑ If CMP arterial segments are being analyzed rather than intersections (see Section D.3), the study area must include all segments where the proposed project will add 50 or more peak hour trips (total of both directions). Within the study area, the TIA must analyze at least one segment between monitored CMP intersections.
- ❑ Mainline freeway monitoring locations where the project will add 150 or more trips, in either direction, during either the AM or PM weekday peak hours.
- ❑ Caltrans must also be consulted through the Notice of Preparation (NOP) process to identify other specific locations to be analyzed on the state highway system.

If the TIA identifies no facilities for study based on these criteria, no further traffic analysis is required. However, projects must still consider transit impacts (Section D.8.4).

D.5 BACKGROUND TRAFFIC CONDITIONS

The following sections describe the procedures for documenting and estimating background, or non-project related traffic conditions. Note that for the purpose of a TIA, these background estimates must include traffic from all sources without regard to the exemptions specified in CMP statute (e.g., traffic generated by the provision of low and very low income housing, or trips originating outside Los Angeles County. Refer to Chapter 5, Section 5.2.3 for a complete list of exempted projects).

D.5.1 Existing Traffic Conditions. Existing traffic volumes and levels of service (LOS) on the CMP highway system within the study area must be documented. Traffic counts must

be less than one year old at the time the study is initiated, and collected in accordance with CMP highway monitoring requirements (see Appendix A). Section D.8.1 describes TIA LOS calculation requirements in greater detail. Freeway traffic volume and LOS data provided by Caltrans is also provided in Appendix A.

D.5.2 Selection of Horizon Year and Background Traffic Growth. Horizon year(s) selection is left to the lead agency, based on individual characteristics of the project being analyzed. In general, the horizon year should reflect a realistic estimate of the project completion date. For large developments phased over several years, review of intermediate milestones prior to buildout should also be considered.

At a minimum, horizon year background traffic growth estimates must use the generalized growth factors shown in Exhibit D-1. These growth factors are based on regional modeling efforts, and estimate the general effect of cumulative development and other socioeconomic changes on traffic throughout the region. Beyond this minimum, selection among the various methodologies available to estimate horizon year background traffic in greater detail is left to the lead agency. Suggested approaches include consultation with the jurisdiction in which the intersection under study is located, in order to obtain more detailed traffic estimates based on ongoing development in the vicinity.

D.6 PROPOSED PROJECT TRAFFIC GENERATION

Traffic generation estimates must conform to the procedures of the current edition of Trip Generation, by the Institute of Transportation Engineers (ITE). If an alternative methodology is used, the basis for this methodology must be fully documented.

Increases in site traffic generation may be reduced for existing land uses to be removed, if the existing use was operating during the year the traffic counts were collected. Current traffic generation should be substantiated by actual driveway counts; however, if infeasible, traffic may be estimated based on a methodology consistent with that used for the proposed use.

Regional transportation impact analysis also requires consideration of trip lengths. Total site traffic generation must therefore be divided into work and non-work-related trip purposes in order to reflect observed trip length differences. Exhibit D-2 provides factors which indicate trip purpose breakdowns for various land use types.

For lead agencies who also participate in CMP highway monitoring, it is recommended that any traffic counts on CMP facilities needed to prepare the TIA should be done in the manner outlined in Chapter 2 and Appendix A. If the TIA traffic counts are taken within one year of the deadline for submittal of CMP highway monitoring data, the local jurisdiction would save the cost of having to conduct the traffic counts twice.

D.7 TRIP DISTRIBUTION

For trip distribution by direct/manual assignment, generalized trip distribution factors are provided in Exhibit D-3, based on regional modeling efforts. These factors indicate Regional Statistical Area (RSA)-level tripmaking for work and non-work trip purposes.

(These RSAs are illustrated in Exhibit D-4.) For locations where it is difficult to determine the project site RSA, census tract/RSA correspondence tables are available from MTA.

Exhibit D-5 describes a general approach to applying the preceding factors. Project trip distribution must be consistent with these trip distribution and purpose factors; the basis for variation must be documented.

Local agency travel demand models disaggregated from the SCAG regional model are presumed to conform to this requirement, as long as the trip distribution functions are consistent with the regional distribution patterns. For retail commercial developments, alternative trip distribution factors may be appropriate based on the market area for the specific planned use. Such market area analysis must clearly identify the basis for the trip distribution pattern expected.

D.8 IMPACT ANALYSIS

CMP Transportation Impact Analyses contain two separate impact studies covering roadways and transit. Section Nos. D.8.1-D.8.3 cover required roadway analysis while Section No. D.8.4 covers the required transit impact analysis. Section Nos. D.9.1-D.9.4 define the requirement for discussion and evaluation of alternative mitigation measures.

D.8.1 Intersection Level of Service Analysis. The LA County CMP recognizes that individual jurisdictions have wide ranging experience with LOS analysis, reflecting the variety of community characteristics, traffic controls and street standards throughout the county. As a result, the CMP acknowledges the possibility that no single set of assumptions should be mandated for all TIAs within the county.

However, in order to promote consistency in the TIAs prepared by different jurisdictions, CMP TIAs must conduct intersection LOS calculations using either of the following methods:

- ❑ The Intersection Capacity Utilization (ICU) method as specified for CMP highway monitoring (see Appendix A); or
- ❑ The Critical Movement Analysis (CMA) / Circular 212 method.

Variation from the standard assumptions under either of these methods for circumstances at particular intersections must be fully documented.

TIAs using the 1985 or 1994 Highway Capacity Manual (HCM) operational analysis must provide converted volume-to-capacity based LOS values, as specified for CMP highway monitoring in Appendix A.

D.8.2 Arterial Segment Analysis. For TIAs involving arterial segment analysis, volume-to-capacity ratios must be calculated for each segment and LOS values assigned using the V/C-LOS equivalency specified for arterial intersections. A capacity of 800 vehicles per hour per through traffic lane must be used, unless localized conditions necessitate alternative values to approximate current intersection congestion levels.

D.8.3 Freeway Segment (Mainline) Analysis. For the purpose of CMP TIAs, a simplified analysis of freeway impacts is required. This analysis consists of a demand-to-capacity calculation for the affected segments, and is indicated in Exhibit D-6.

D.8.4 Transit Impact Review. CMP transit analysis requirements are met by completing and incorporating into an EIR the following transit impact analysis:

- ❑ Evidence that affected transit operators received the Notice of Preparation.
- ❑ A summary of existing transit services in the project area. Include local fixed-route services within a ¼ mile radius of the project; express bus routes within a 2 mile radius of the project, and; rail service within a 2 mile radius of the project.
- ❑ Information on trip generation and mode assignment for both AM and PM peak hour periods as well as for daily periods. Trips assigned to transit will also need to be calculated for the same peak hour and daily periods. Peak hours are defined as 7:30-8:30 AM and 4:30-5:30 PM. Both "peak hour" and "daily" refer to average weekdays, unless special seasonal variations are expected. If expected, seasonal variations should be described.
- ❑ Documentation of the assumption and analyses that were used to determine the number and percent of trips assigned to transit. Trips assigned to transit may be calculated along the following guidelines:
  - ➢ Multiply the total trips generated by 1.4 to convert vehicle trips to person trips;
  - ➢ For each time period, multiply the result by one of the following factors:

    3.5% of Total Person Trips Generated for most cases, except:

    10% primarily Residential within 1/4 mile of a CMP transit center
    15% primarily Commercial within 1/4 mile of a CMP transit center
    7% primarily Residential within 1/4 mile of a CMP multi-modal transportation center
    9% primarily Commercial within 1/4 mile of a CMP multi-modal transportation center
    5% primarily Residential within 1/4 mile of a CMP transit corridor
    7% primarily Commercial within 1/4 mile of a CMP transit corridor
    0% if no fixed route transit services operate within one mile of the project

  To determine whether a project is primarily residential or commercial in nature, please refer to the CMP land use categories listed and defined in Appendix E, *Guidelines for New Development Activity Tracking and Self Certification*. For projects that are only partially within the above one-quarter mile radius, the base rate (3.5% of total trips generated) should be applied to all of the project buildings that touch the radius perimeter.

- ❑ Information on facilities and/or programs that will be incorporated in the development plan that will encourage public transit use. Include not only the jurisdiction's TDM Ordinance measures, but other project specific measures.

- Analysis of expected project impacts on current and future transit services and proposed project mitigation measures, and;
- Selection of final mitigation measures remains at the discretion of the local jurisdiction/lead agency. Once a mitigation program is selected, the jurisdiction self-monitors implementation through the existing mitigation monitoring requirements of CEQA.

D.9 IDENTIFICATION AND EVALUATION OF MITIGATION

D.9.1 Criteria for Determining a Significant Impact. For purposes of the CMP, a significant impact occurs when the proposed project increases traffic demand on a CMP facility by 2% of capacity ($V/C \geq 0.02$), causing LOS F ($V/C > 1.00$); if the facility is already at LOS F, a significant impact occurs when the proposed project increases traffic demand on a CMP facility by 2% of capacity ($V/C \geq 0.02$). The lead agency may apply a more stringent criteria if desired.

D.9.2 Identification of Mitigation. Once the project has been determined to cause a significant impact, the lead agency must investigate measures which will mitigate the impact of the project. Mitigation measures proposed must clearly indicate the following:

- Cost estimates, indicating the fair share costs to mitigate the impact of the proposed project. If the improvement from a proposed mitigation measure will exceed the impact of the project, the TIA must indicate the proportion of total mitigation costs which is attributable to the project. This fulfills the statutory requirement to exclude the costs of mitigating inter-regional trips.
- Implementation responsibilities. Where the agency responsible for implementing mitigation is not the lead agency, the TIA must document consultation with the implementing agency regarding project impacts, mitigation feasibility and responsibility.

Final selection of mitigation measures remains at the discretion of the lead agency. The TIA must, however, provide a summary of impacts and mitigation measures. Once a mitigation program is selected, the jurisdiction self-monitors implementation through the mitigation monitoring requirements contained in CEQA.

D.9.3 Project Contribution to Planned Regional Improvements. If the TIA concludes that project impacts will be mitigated by anticipated regional transportation improvements, such as rail transit or high occupancy vehicle facilities, the TIA must document:

- Any project contribution to the improvement, and
- The means by which trips generated at the site will access the regional facility.

D.9.4 Transportation Demand Management (TDM). If the TIA concludes or assumes that project impacts will be reduced through the implementation of TDM measures, the TIA must document specific actions to be implemented by the project which substantiate these conclusions.

D.10 REFERENCES

1. *Traffic Access and Impact Studies for Site Development: A Recommended Practice*, Institute of Transportation Engineers, 1991.
2. *Trip Generation*, 5th Edition, Institute of Transportation Engineers, 1991.
3. *Travel Forecast Summary: 1987 Base Model - Los Angeles Regional Transportation Study (LARTS)*, California State Department of Transportation (Caltrans), February 1990.
4. *Traffic Study Guidelines*, City of Los Angeles Department of Transportation (LADOT), July 1991.
5. *Traffic/Access Guidelines*, County of Los Angeles Department of Public Works.
6. *Building Better Communities*, Sourcebook, Coordinating Land Use and Transit Planning, American Public Transit Association.
7. *Design Guidelines for Bus Facilities*, Orange County Transit District, 2nd Edition, November 1987.
8. *Coordination of Transit and Project Development*, Orange County Transit District, 1988.
9. *Encouraging Public Transportation Through Effective Land Use Actions*, Municipality of Metropolitan Seattle, May 1987.

Exhibit D-1

GENERAL TRAFFIC VOLUME GROWTH FACTORS

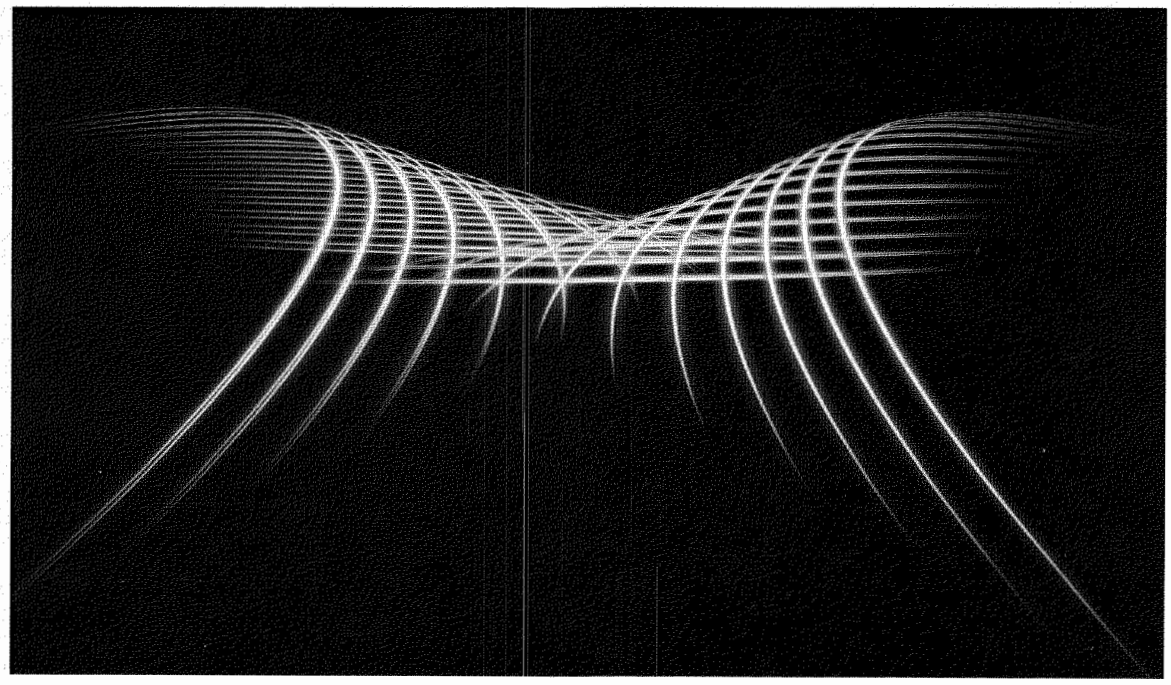
RSA	Representative City/Place	2010	2015	2020	2025	2030	2035
7	Agoura Hills	1.000	1.020	1.041	1.052	1.063	1.075
8	Santa Clarita	1.000	1.145	1.291	1.348	1.405	1.461
9	Lancaster	1.000	1.214	1.427	1.676	1.924	2.172
10	Palmdale	1.000	1.134	1.267	1.363	1.458	1.553
11	Angeles Forest	1.000	1.151	1.301	1.394	1.487	1.580
12	West S.F. Valley	1.000	1.027	1.054	1.068	1.083	1.097
13	Burbank	1.000	1.024	1.049	1.063	1.077	1.092
14	Sylmar	1.000	1.024	1.049	1.071	1.093	1.114
15	Malibu	1.000	1.027	1.054	1.075	1.096	1.117
16	Santa Monica	1.000	1.014	1.028	1.038	1.049	1.059
17	West/Central L.A.	1.000	1.007	1.014	1.024	1.034	1.044
18	South Bay/LAX	1.000	1.013	1.026	1.035	1.044	1.053
19	Palos Verdes	1.000	1.025	1.051	1.061	1.071	1.081
20	Long Beach	1.000	1.076	1.152	1.160	1.168	1.177
21	Vernon	1.000	1.073	1.146	1.158	1.170	1.182
22	Downey	1.000	1.052	1.104	1.116	1.127	1.139
23	Downtown L.A.	1.000	1.009	1.018	1.030	1.042	1.054
24	Glendale	1.000	1.014	1.027	1.041	1.055	1.068
25	Pasadena	1.000	1.041	1.082	1.098	1.115	1.131
26	West Covina	1.000	1.023	1.046	1.066	1.086	1.106
27	Pomona	1.000	1.081	1.161	1.190	1.219	1.248

Attachment F

2010 Highway Capacity Model

HCM2010

HIGHWAY CAPACITY MANUAL



VOLUME 1: CONCEPTS

TRB TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

WASHINGTON, DC | WWW.TRB.ORG

C&R-450

FOREWORD

This fifth edition of the *Highway Capacity Manual* breaks a great deal of new ground.

- It is the first *Highway Capacity Manual* to provide an **integrated multimodal approach** to the analysis and evaluation of urban streets from the points of view of automobile drivers, transit passengers, bicyclists, and pedestrians. This is the first manual to take into account the effects of cars on bicyclists and pedestrians.
- It is the first to address the proper **application of microsimulation analysis** and the evaluation of those results.
- It is the first to discuss **active traffic management** in relation to both demand and capacity.
- It is the first to include **example applications of its procedures implemented in software code and executables** to assist users and software developers in understanding the subtleties of the methodologies.
- It is also the first to provide tools, **generalized service volume tables,** to assist planners in quickly sizing future facilities.

While this edition of the *Highway Capacity Manual* has many firsts, it also builds on more than 60 years of work by many dedicated experts in the field.[1]

The first *Highway Capacity Manual* was published in 1950 as a joint venture between the Highway Research Board's Committee on Highway Capacity and the Bureau of Public Roads. That effort was led by O. K. Normann, committee chair, and William Walker, committee secretary. The manual was the first international document on the broad subject of capacity and provided definitions of key terms, a compilation of maximum observed flows, and the initial fundamentals of capacity.

The second edition was published in 1965 by the Highway Research Board and authored by the Committee on Highway Capacity. O. K. Normann led much of this effort until his untimely death in 1964. Carl C. Saal continued the work as the new committee chair with Arthur A. Carter, Jr., as secretary. The Bureau of Public Roads was again a significant contributor to the project. The 1965 manual was a significant extension of the 1950 edition and introduced the concept of level of service.

The third edition of the manual was published in 1985 by the Transportation Research Board (TRB) and authored by the Committee on Highway Capacity and Quality of Service, chaired by Carlton C. Robinson, with Charles W. Dale as secretary. Credit is also due to Robert C. Blumenthal and James H. Kell, who served as committee chairs between the publication of the 1965 and 1985 editions. The 1985 edition extended capacity analysis to additional facility types,

[1] Thanks are extended to Adolf D. May for this short history of the *Highway Capacity Manual,* which was first provided in his Foreword to the 1994 edition.

1. INTRODUCTION

VOLUME 1: CONCEPTS
1. HCM User's Guide
2. Applications
3. Modal Characteristics
4. Traffic Flow and Capacity Concepts
5. Quality and Level-of-Service Concepts
6. HCM and Alternative Analysis Tools
7. Interpreting HCM and Alternative Tool Results
8. HCM Primer
9. Glossary and Symbols

The *Highway Capacity Manual 2010* (HCM) is the fifth edition of this fundamental reference document. Like its predecessors, the HCM 2010 has been significantly revised to incorporate the latest research on highway capacity and quality of service. It has also been substantially reorganized. These changes continue the HCM's evolution, keeping the manual in step with its users' needs and present times.

The 1950 HCM (*1*) was the first document to quantify the concept of capacity for transportation facilities and focused almost entirely on that subject. This focus was in response to the rapid expansion of the U.S. roadway system after World War II and the need to determine lane requirements for the Interstate highway system and the roads that provided access to it. The manual was designed to be "a practical guide by which the engineer, having determined the essential facts, can design a new highway or revamp an old one with assurance that the resulting capacity will be as calculated."

The focus on design continued in the 1965 HCM (*2*), but the level-of-service (LOS) concept was also introduced with this edition, along with a chapter on bus transit. The HCM permitted the "determination of the capacity, service volume, or level of service which will be provided by either a new highway design, or an existing highway under specified conditions."

The 1985 HCM (*3*) was another significant step in the evolution of the HCM. It further refined the concept of LOS and incorporated the results of several major research projects performed since the publication of the 1965 HCM. The target audience was broadened through the addition of chapters on pedestrians and bicycles and an expansion of the transit chapter.

A substantial increase in the volume and breadth of material occurred with the publication of the HCM2000 (*4*). The intent of the manual was "to provide a systematic and consistent basis for assessing the capacity and level of service for elements of the surface transportation system and also for systems that involve a series or a combination of individual facilities."

The HCM 2010 has added much new material from research projects completed since the publication of HCM2000 and has been reorganized to make its contents more accessible and understandable. The reorganization is also intended to encourage analysts and decision makers to consider all roadway users, as well as a broader range of performance measures, when they assess transportation facility performance.

Chapter 1, HCM User's Guide, is the starting point for learning how to use this edition of the HCM. This chapter presents the purpose, objectives, intended use, and target users of the HCM 2010; describes the contents of each of the four volumes that make up the HCM; summarizes the major changes that have been made to HCM2000 methodologies; and mentions some of the important companion documents to the HCM. The remainder of Volume 1 presents the fundamental information with which users should be familiar before starting to apply the manual.

5. WHAT'S NEW IN THE HCM 2010

OVERVIEW

Although the page layout of the HCM 2010 is similar to that of the HCM2000, a number of changes have been made to the manual—a result of both the extensive research that has been conducted since the HCM2000 and the feedback received from HCM2000 users.

Research Basis for the HCM 2010

Exhibit 1-2 lists the major research projects that have contributed to the HCM 2010. The impacts of these and other projects on individual HCM chapters are described later in this section.

Exhibit 1-2
Major Research Projects Contributing to the HCM 2010

Project	Project Title	Project Objective(s)
NCHRP 3-60	Capacity and Quality of Service of Interchange Ramp Terminals	Develop improved methods for capacity and quality-of-service analysis of interchange ramp terminals, for a full range of interchange types.
NCHRP 3-64	*Highway Capacity Manual* Applications Guide	Develop an HCM Applications Guide that shows how to apply HCM methodologies to real-world problems and indicate when other methods may be more appropriate.
NCHRP 3-65	Applying Roundabouts in the United States	Develop methods of estimating the safety and operational impacts of U.S. roundabouts and refine the design criteria used for them.
NCHRP 3-70	Multimodal Level of Service Analysis for Urban Streets	Develop a framework and enhanced methods for determining levels of service for automobile, transit, bicycle, and pedestrian modes on urban streets, in particular with respect to the interaction among the modes.
NCHRP 3-75	Analysis of Freeway Weaving Sections	Develop improved methods for capacity and LOS analysis of freeway weaving sections.
NCHRP 3-79	Measuring and Predicting the Performance of Automobile Traffic on Urban Streets	Develop techniques to measure the performance of automobile traffic on urban streets for real-time applications; develop procedures to predict the performance of automobile traffic on urban streets.
NCHRP 3-82	Default Values for Capacity and Quality of Service Analyses	Determine appropriate default values for inputs to HCM analyses; develop a guide to select default values for various applications.
NCHRP 3-85	Guidance for the Use of Alternative Traffic Analysis Tools in Highway Capacity Analyses	Enhance the guidance in the HCM for the selection and use of alternative traffic analysis tools.
NCHRP 3-92	Production of the Year 2010 *Highway Capacity Manual*	Develop the 2010 edition of the HCM.
Federal Highway Administration	Evaluation of Safety, Design, and Operation of Shared-Use Paths (DTFH61-00-R-00070)	Develop an LOS estimation method for shared-use paths to assist path designers and operators in determining how wide to make new or rebuilt paths and whether to separate the different types of users.
Federal Highway Administration	Active Traffic Management Measures for Increasing Capacity and Improving Performance (DTFH61-06-D-00004)	Describe active traffic management techniques and available information and analysis methods for evaluating their effectiveness in increasing highway facility capacity and improving operational performance.

In recognition of the companion TCQSM (*5*) and of the difficulty in keeping the two manuals in synch, users are referred to the TCQSM for transit-specific capacity and quality-of-service procedures. However, transit quality of service in a multimodal context continues to be addressed in the HCM.

Traveler-Perception Models

Since the 1985 HCM, LOS has been defined in terms of measures of operational conditions within a traffic stream (*3*, *4*). HCM methodologies have generally presented a single LOS measure per system element that can be (*a*) directly measured in the field, (*b*) perceived by travelers, and (*c*) affected by facility owners. However, since the publication of the HCM2000, a number of research projects have studied whether a single operational factor is sufficient to describe LOS, as well as whether nonoperational factors should also be used (*10*). These projects have proposed models that (*a*) incorporate multiple factors of traveler satisfaction and (*b*) set LOS thresholds based on traveler perceptions of service quality. Traveler-perception models from two of these studies (*11*, *12*) have been incorporated into the Multilane Highways, Two-Lane Highways, Urban Street Facilities, Urban Street Segments, and Off-Street Pedestrian and Bicycle Facilities chapters.

Generalized Service Volume Tables

The HCM2000 provided "example service volume tables" for 10 system elements. The service volume tables were developed by using a single set of default values and were accompanied by cautionary notes that they were illustrative only. The HCM 2010 provides "generalized service volume tables" for facilities that incorporate a range of national default values. These tables can be considered for such applications as statewide performance reporting, areawide (i.e., regional) modeling, and future-year analyses as part of a long-range transportation planning process.

METHODOLOGICAL CHANGES BY SYSTEM ELEMENT

Freeway Facilities

The basic methodology is similar to the one given in the HCM2000 but incorporates the new weaving-segment analysis procedure. A significant change is the addition of LOS thresholds for freeway facilities based on density. Other changes include updates to the material on the impact of weather and work zones on freeway facility capacity, along with new information on the impact of active traffic management measures on freeway operations.

Basic Freeway Segments

The basic methodology is similar to the one given in the HCM2000. The free-flow speed prediction model has been improved, and a speed–flow curve for segments with 75-mi/h free-flow speeds has been added.

Freeway Weaving Segments

This chapter has been completely updated and incorporates the methodology developed by the NCHRP 3-75 project. Although the general process for analyzing weaving segments is similar to that given in the HCM2000, the HCM 2010 models are based on an up-to-date set of weaving data. The following are the two major differences in how the methodology is applied: (*a*) there is now a single algorithm for predicting weaving speeds and a single algorithm for predicting nonweaving speeds, regardless of the weaving configuration, and (*b*) the LOS F threshold has changed.

Ramps and Ramp Junctions

The following revisions have been made to the HCM2000 methodology:

- Procedures have been added to check for unreasonable lane distributions that overload the left or right lane(s) (or both) of the freeway.
- A revision has been made to correct an illogical trend involving on-ramps on eight-lane freeways in which density increases as the length of the acceleration lane increases.

Multilane Highways

The multilane highways automobile methodology is essentially the same as that given in the HCM2000. A methodology for calculating bicycle LOS for multilane highways has been added.

Two-Lane Highways

The following revisions have been made to the HCM2000 automobile methodology:

- The two-direction analysis has been dropped: the one-direction methodology is the only one used, with two-direction results obtained by appropriate weighted averaging of the one-direction results.
- Several key curves and tables used in one-direction analyses have been adjusted and incorporated into the chapter.

A bicycle LOS methodology for two-lane highways has been added.

Urban Street Facilities

This is a new chapter that contains guidance to help analysts determine the scope of their analysis (i.e., isolated intersection versus coordinated signal system) and the relevant travel modes (i.e., automobile, pedestrian, bicycle, transit, or a combination). The methodology section describes how to aggregate results from the segment and point levels of analysis into an overall facility assessment. Information on the impact of active traffic management measures on urban street performance has been added.

Urban Street Segments

This chapter has been completely rewritten. The work of the NCHRP 3-79 project has been incorporated into the chapter, providing improved methods for estimating urban street free-flow speeds and running times, along with a new method for estimating the stop rate along an urban street. In addition, the work of the NCHRP 3-70 project has been incorporated, providing a multimodal LOS methodology that can be used to evaluate trade-offs in how urban street right-of-way is allocated among the modes using the street.

Signalized Intersections

The following revisions have been made to the HCM2000 methodology:

- A new incremental queue accumulation method has been added to calculate the d_1 delay term and the Q_1 length term. It is equivalent to the HCM2000 method for the idealized case but is more flexible to accommodate nonideal cases, including coordinated arrivals and multiple green periods with differing saturation flow rates (i.e., protected-plus-permitted left turns and sneakers).
- An actuated controller operation modeling procedure has been added.
- A left-turn lane overflow check procedure has been added.
- Pedestrian and bicycle LOS methodologies relating to signalized intersections have been moved into this chapter.

Unsignalized Intersections

The HCM2000's Unsignalized Intersections chapter has been split into three chapters: two-way STOP-controlled intersections, all-way STOP-controlled intersections, and roundabouts.

Two-Way STOP-Controlled Intersections

The two-way STOP-controlled intersection methodology for the automobile mode is essentially the same as the one given in the HCM2000, except gap-acceptance parameters for six-lane streets have been added. In addition, pedestrian and bicycle LOS methodologies relating to two-way STOP-controlled intersections have been moved into this chapter.

All-Way STOP-Controlled Intersections

The all-way STOP-controlled intersection methodology is essentially the same as the one given in the HCM2000. A queue-estimation model has been added.

Roundabouts

This chapter replaces the HCM2000 roundabout content. It is based on the work of the NCHRP 3-65 project, which developed a comprehensive database of U.S. roundabout operations and new methodologies for evaluating roundabout performance. A LOS table for roundabouts has been added.

Interchange Ramp Terminals

This chapter is completely updated on the basis of the NCHRP 3-60 project.

Off-Street Pedestrian and Bicycle Facilities

The pedestrian path procedures are essentially the same as those of the HCM2000, but guidance is provided on how to apply the procedures to a wider variety of facility types. The bicycle path procedures, which were based on Dutch research in the HCM2000, have been updated on the basis of results of a Federal Highway Administration (FHWA) study to calibrate the Dutch model for U.S. conditions and increase the number of path user groups (e.g., inline skaters and runners) addressed by the procedures.

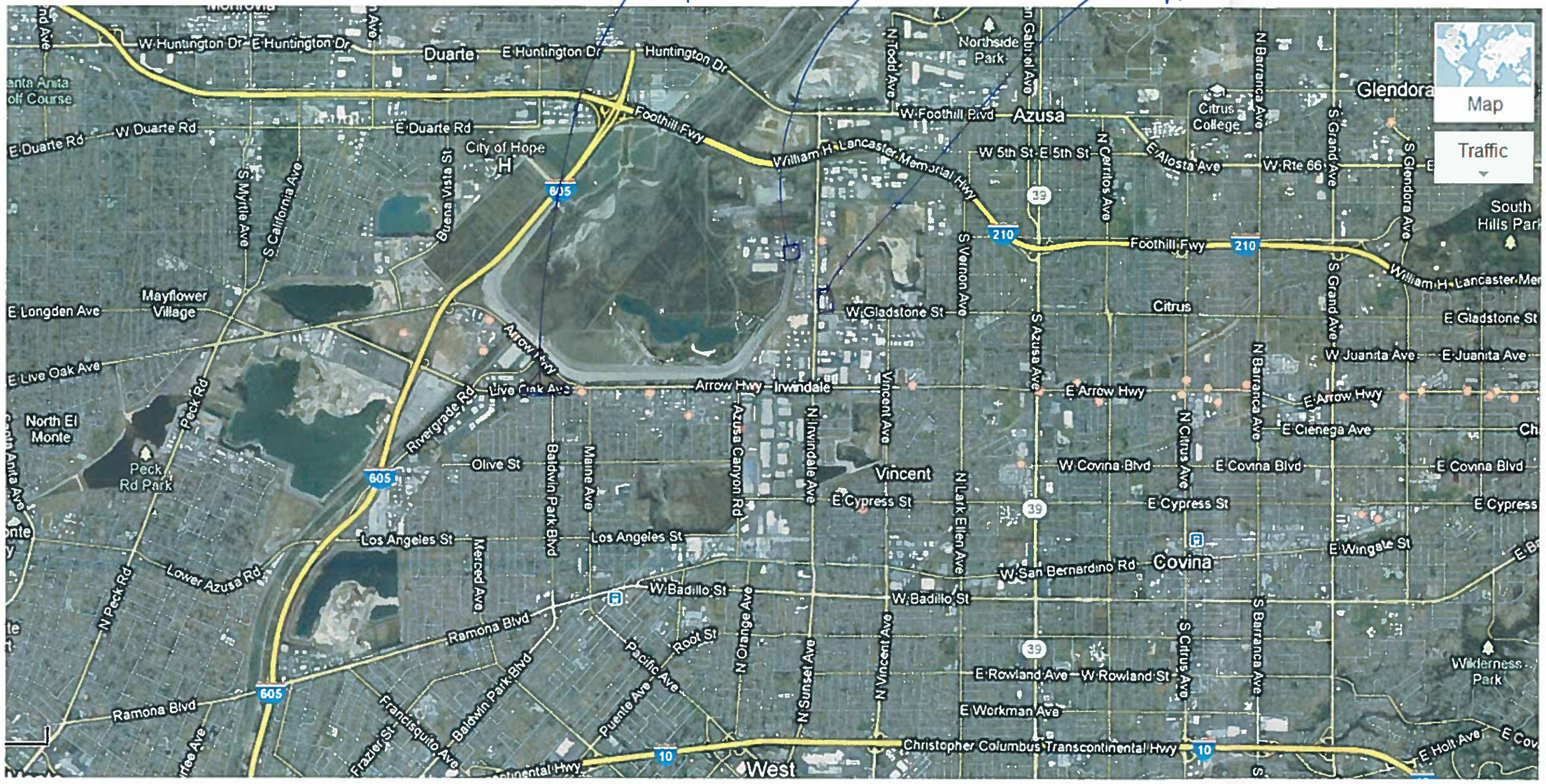
Attachment G

Google Map

Proposed TS/MRF Project

5820 Martin Rd (Cleantech)

1501 W. Gladstone Azusa (TS/MRF)



Attachment H

First Nandina Logistics Center EIR – GHG Analysis

Technical Appendix F
Greenhouse Gas Analysis

First Nandina Logistics Center

GREENHOUSE GAS ANALYSIS

CITY OF MORENO VALLEY

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APRIL 21, 2014

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LIST OF ABBREVIATED TERMS

(1)	Reference
ARB	California Air Resources Board
AQIA	Air Quality Impact Analysis
CAA	Federal Clean Air Act
CalEEMod	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resource Board
CAT	Climate Action Team
CBSC	California Building Standards Commission
CEC	California Energy Commission
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CFC	Chlorofluorocarbons
CFR	Code of Federal Regulations
CH4	Methane
CO	Carbon Monoxide
CO2	Carbon Dioxide
CO2e	Carbon Dioxide Equivalent
CPUC	California Public Utilities Commission
EPA	Environmental Protection Agency
EPS	Emission Performance Standard
GCC	Global Climate Change
GHGA	Greenhouse Gas Analysis
GWP	Global Warming Potential
HFC	Hydrofluorocarbons
LCA	Life-Cycle Analysis
MMs	Mitigation Measures
MMTCO2e	Million Metric Ton of Carbon Dioxide Equivalent
MTCO2e	Metric Ton of Carbon Dioxide Equivalent
N20	Nitrogen Dioxide
NIOSH	National Institute for Occupational Safety and Health
NOx	Oxides of Nitrogen
PFC	Perfluorocarbons
PM10	Particulate Matter 10 microns in diameter or less
PM2.5	Particulate Matter 2.5 microns in diameter or less

PPM	Parts Per Million
Project	First Nandina Logistics Center
RTP	Regional Transportation Plan
SB	Senate Bill
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
UNFCCC	United Nations' Framework Convention on Climate Change
VOC	Volatile Organic Compounds

1 INTRODUCTION

This report presents the results of the greenhouse gas analysis (GHGA) prepared by Urban Crossroads, Inc., for the proposed First Nandina Logistics Center ("Project"). The purpose of this GHGA is to evaluate Project-related construction and operational emissions and determine the level of greenhouse gas (GHG) impacts as a result of constructing and operating the proposed Project. This GHGA quantifies the GHG emissions associated with the Project for two scenarios: first, as if no actions to reduce emissions were taken as compared to the assumptions used in preparing the baseline 2020 emissions for the California Air Resources Board Scoping Plan (referred to herein as "Business as Usual") to implement Assembly Bill (AB) 32, and second as designed with applicable design features.

1.1 SITE LOCATION

The proposed First Nandina Logistics Center development is located at the southwest corner of Indian Avenue and Nandina Avenue in the City of Moreno Valley as shown on Exhibit 1-A. The Project site is currently vacant with the exception of a few building structures located in the middle of the site

1.2 STUDY AREA

The Project site is located within area developed mostly with commercial and industrial land uses. However, the study area includes several residential homes scattered throughout the project study area. The March Air Reserve Base / Inland Port Airport is located immediately west of the Project site. Existing surrounding land uses are graphically presented at Exhibit 1-B.

1.3 PROJECT DESCRIPTION

The Project is proposed to consist of approximately 1,450,000 square feet of high-cube distribution warehouse use within a single building. It is assumed that the Project will be constructed and occupied by 2015. Exhibit 1-C illustrates a preliminary conceptual site plan.

The project area is located within the currently adopted Moreno Valley Industrial Area Plan (SP No. 208). The proposed project is an allowable use under SP No. 208 and the property's Industrial (I) zoning classification.

1.4 SUMMARY OF FINDINGS

To date, the South Coast Air Quality Management District (SCAQMD) and CARB have not established significance thresholds for GHG emissions under the California Environmental Quality Act (CEQA)[1]. To evaluate the Project's GHG impacts the proposed Project's emissions are compared with a "Business as Usual" (BAU) scenario to determine if the development is

1 SCAQMD has adopted interim significance thresholds for industrial sources of 10,000 metric tons of carbon dioxide equivalent per year. The Board adopted these thresholds December 5, 2008. This threshold however was adopted by SCAQMD only for projects where it is the lead agency.

likely to be consistent with the Scoping Plan designed to implement AB 32 in California which calls for an approximate 28.5% reduction from BAU (1).

As shown in Table 1-1, the Project's GHG emissions result in an emissions reduction of 22.00% when compared to the BAU scenario. This reduction does not meet the target reduction percentage of 28.5% based on CARB's analysis supporting AB 32.

TABLE 1-1: SUMMARY OF GHG EMISSIONS FOR BAU VS PROJECT

Category	CO2e Emissions	
	BAU	Project (With regulatory requirements and applicable mitigation measures)
	Metric Tons per Year	
Construction	61.65	61.65
Area	0.05	0.05
Energy Use	1,562.85	1,054.82
Mobile Sources (Trucks)	18,914.21	15,273.14
Mobile Sources (Passenger Cars)	2,371.48	1,327.39
On-Site Equipment	462.01	384.26
Waste Disposed	620.05	620.05
Water Use	72.07	47.97
Total	**24,064.37**	**18,769.33**
Project Improvement over BAU	**22.00%**	

EXHIBIT 1-A: LOCATION MAP



EXHIBIT 1-B: PRELIMINARY SITE PLAN

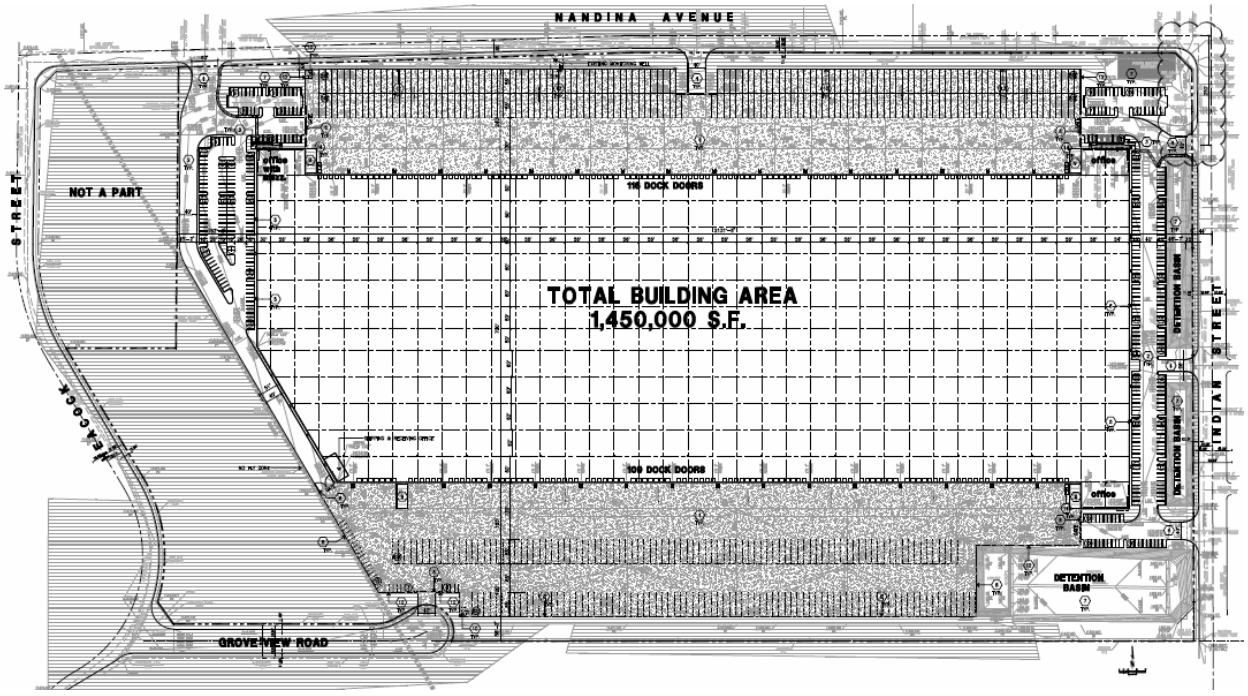
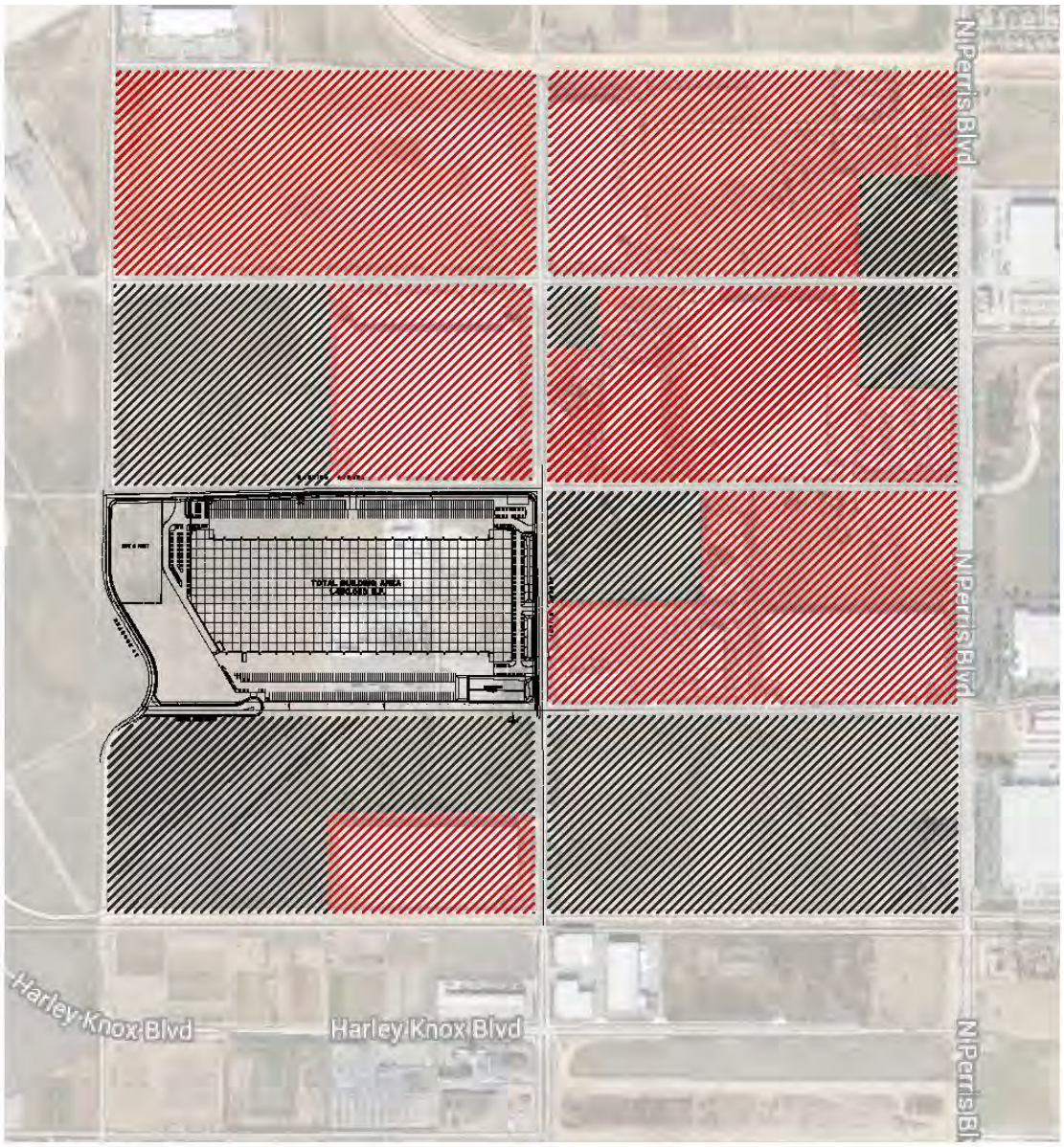


EXHIBIT 1-C: EXISTING LAND USES



1.4 REGULATORY REQUIREMENTS

The Project would be required to comply with all mandates imposed by the State of California and the South Coast Air Quality Management District aimed at the reduction of air quality emissions. Those that are applicable to the Project and that would assist in the reduction of greenhouse gas emissions are:

- Global Warming Solutions Act of 2006 (AB32)(2)
- Regional GHG Emissions Reduction Targets/Sustainable Communities Strategies (SB 375)(3)
- Pavley Fuel Efficiency Standards (AB1493). Establishes fuel efficiency ratings for new vehicles (4).
- Title 24 California Code of Regulations (California Building Code). Establishes energy efficiency requirements for new construction (5).
- Title 20 California Code of Regulations (Appliance Energy Efficiency Standards). Establishes energy efficiency requirements for appliances (6).
- Title 17 California Code of Regulations (Low Carbon Fuel Standard). Requires carbon content of fuel sold in California to be 10% less by 2020 (7).
- California Water Conservation in Landscaping Act of 2006 (AB1881). Requires local agencies to adopt the Department of Water Resources updated Water Efficient Landscape Ordinance or equivalent by January 1, 2010 to ensure efficient landscapes in new development and reduced water waste in existing landscapes (8).
- Statewide Retail Provider Emissions Performance Standards (SB 1368). Requires energy generators to achieve performance standards for GHG emissions (9).
- Renewable Portfolio Standards (SB 1078). Requires electric corporations to increase the amount of energy obtained from eligible renewable energy resources to 20 percent by 2010 and 33 percent by 2020 (10).
- Heavy Duty (Tractor-Trailer) Greenhouse Gas Regulation. In December 2008 CARB adopted a new regulation to reduce greenhouse gas emissions by improving fuel efficiency of heavy-duty tractors that pull 53-foot or longer box-types(11).

Promulgated regulations that will affect the Project's emissions are accounted for in the Project's GHG calculations provided in this report. In particular, the Pavley Standards, Low Carbon Fuel Standards, and Renewable Portfolio Standards (RPS) will be in effect for the AB 32 target year of 2020, and therefore are accounted for in the Project's emission calculations. The BAU scenario emissions do not include regulations designed to meet AB 32 standards; therefore these regulations were not included in the GHG emissions calculations for the BAU scenario.

1.5 OPERATIONAL-SOURCE MITIGATION MEASURES

MM AQ-3

Prior to the issuance of building permits, the Project applicant shall ensure that the Project is designed to achieve efficiency equal to or exceeding then incumbent (2013 or later) California Building Code Title 24 requirements.

MM AQ-4

To reduce water consumption and the associated energy-usage, the Project will be designed to comply with the mandatory reductions in indoor water usage contained in the incumbent CalGreen Code (12) and any mandated reduction in outdoor water usage contained in the City's water efficient landscape requirements. Additionally, the Project shall implement the following:

- Landscaping palette emphasizing drought tolerant plants;
- Use of water-efficient irrigation techniques;
- U.S. EPA Certified WaterSense labeled or equivalent faucets, high-efficiency toilets (HETs), and water-conserving shower heads.

MM AQ-5

The Project will reduce vehicle miles traveled and emissions associated with by implementing the following measures:

- Pedestrian and bicycle connections shall be provided to surrounding areas consistent with the City's General Plan.
- Implement a voluntary trip reduction program, for which all employees shall be eligible to participate.

2 CLIMATE CHANGE SETTING

2.1 INTRODUCTION TO GLOBAL CLIMATE CHANGE

Global Climate Change (GCC) is defined as the change in average meteorological conditions on the earth with respect to temperature, precipitation, and storms. GCC is currently one of the most controversial environmental issues in the United States, and much debate exists within the scientific community about whether or not GCC is occurring naturally or as a result of human activity. Some data suggests that GCC has occurred in the past over the course of thousands or millions of years. These historical changes to the Earth's climate have occurred naturally without human influence, as in the case of an ice age. However, many scientists believe that the climate shift taking place since the industrial revolution (1900) is occurring at a quicker rate and magnitude than in the past. Scientific evidence suggests that GCC is the result of increased concentrations of greenhouse gases in the earth's atmosphere, including carbon dioxide, methane, nitrous oxide, and fluorinated gases. Many scientists believe that this increased rate of climate change is the result of greenhouse gases resulting from human activity and industrialization over the past 200 years.

An individual project like the proposed Project evaluated in this GHGA cannot generate enough greenhouse gas emissions to effect a discernible change in global climate. However, the proposed Project may participate in the potential for GCC by its incremental contribution of greenhouse gasses combined with the cumulative increase of all other sources of greenhouse gases, which when taken together constitute potential influences on GCC. Because these changes may have serious environmental consequences, Section 3.0 will evaluate the potential for the proposed Project to have a significant effect upon the environment as a result of its potential contribution to the greenhouse effect.

2.2 GREENHOUSE GAS EMISSIONS INVENTORIES

Global

Worldwide anthropogenic (man-made) GHG emissions are tracked by the Intergovernmental Panel on Climate Change for industrialized nations (referred to as Annex I) and developing nations (referred to as Non-Annex I). Man-made GHG emissions data for Annex I nations are available through 2011. For the Year 2011 the sum of these emissions totaled approximately 25,285,543 Gg $CO2e$[2](13) (14). The GHG emissions in more recent years may differ from the inventories presented in Table 2-1; however, the data is representative of currently available inventory data.

[2] The global emissions are the sum of Annex I and non-Annex I countries, without counting Land-Use, Land-Use Change and Forestry (LULUCF). For countries without 2005 data, the UNFCCC data for the most recent year were used. United Nations Framework Convention on Climate Change, "Annex I Parties – GHG total without LULUCF,"

United States

As noted in Table 2-1, the United States, as a single country, was the number two producer of GHG emissions in 2011. The primary greenhouse gas emitted by human activities in the United States was CO2, representing approximately 83 percent of total greenhouse gas emissions (15). Carbon dioxide from fossil fuel combustion, the largest source of US greenhouse gas emissions, accounted for approximately 78 percent of the GHG emissions.

TABLE 2-1: TOP GHG PRODUCER COUNTRIES AND THE EUROPEAN UNION [3]

Emitting Countries	GHG Emissions (Gg CO2e)
China	8,715,307
United States	6,665,700
European Union (27 member countries)	4,550,212
Russian Federation	2,320,834
India	1,725,762
Japan	1,307,728
Total	**25,285,543**

State of California

CARB compiles GHG inventories for the State of California. Based upon the 2008 GHG inventory data (i.e., the latest year for which data are available) for the 2000-2008 greenhouse gas emissions inventory, California emitted 474 MMTCO2e including emissions resulting from imported electrical power in 2008 (16). Based on the CARB inventory data and GHG inventories compiled by the World Resources Institute (17), California's total statewide GHG emissions rank second in the United States (Texas is number one) with emissions of 417 MMTCO2e excluding emissions related to imported power.

2.3 GLOBAL CLIMATE CHANGE DEFINED

Global Climate Change (GCC) refers to the change in average meteorological conditions on the earth with respect to temperature, wind patterns, precipitation and storms. Global temperatures are regulated by naturally occurring atmospheric gases such as water vapor, CO2 (Carbon Dioxide), N2O (Nitrous Oxide), CH4 (Methane), hydrofluorocarbons, perfluorocarbons and sulfur hexafluoride. These particular gases are important due to their residence time (duration they stay) in the atmosphere, which ranges from 10 years to more than 100 years. These gases allow solar radiation into the Earth's atmosphere, but prevent radioactive heat from escaping, thus warming the Earth's atmosphere. GCC can occur naturally as it has in the past with the previous ice ages. According to the California Air Resources Board (CARB), the climate change since the industrial revolution differs from previous climate changes in both rate and magnitude (18).

[3] Used http://unfccc.int data for Annex I countries. Consulted the http://www.eia.gov site to reference Non-Annex I countries such as China and India.

Gases that trap heat in the atmosphere are often referred to as greenhouse gases. Greenhouse gases are released into the atmosphere by both natural and anthropogenic (human) activity. Without the natural greenhouse gas effect, the Earth's average temperature would be approximately 61° Fahrenheit (F) cooler than it is currently. The cumulative accumulation of these gases in the earth's atmosphere is considered to be the cause for the observed increase in the earth's temperature.

Although California's rate of growth of greenhouse gas emissions is slowing, the state is still a substantial contributor to the U.S. emissions inventory total. In 2004, California is estimated to have produced 492 million gross metric tons of carbon dioxide equivalent (CO2e) greenhouse gas emissions. Despite a population increase of 16 percent between 1990 and 2004, California has significantly slowed the rate of growth of greenhouse gas emissions due to the implementation of energy efficiency programs as well as adoption of strict emission controls(17).

2.4 GREENHOUSE GASES

For the purposes of this analysis, emissions of carbon dioxide, methane, and nitrous oxide were evaluated (see Table 3-4 later in this report) because these gasses are the primary contributors to GCC from development projects. Although other substances such as fluorinated gases also contribute to GCC, sources of fluorinated gases are not well-defined and no accepted emissions factors or methodology exist to accurately calculate these gases.

Greenhouse gases have varying global warming potential (GWP) values; GWP values represent the potential of a gas to trap heat in the atmosphere. Carbon dioxide is utilized as the reference gas for GWP, and thus has a GWP of 1.

The atmospheric lifetime and GWP of selected greenhouse gases are summarized at Table 2-2. As shown in the table below, GWP range from 1 for carbon dioxide to 23,900 for sulfur hexafluoride.

TABLE 2-2: GLOBAL WARMING POTENTIAL AND ATMOSPHERIC LIFETIME OF SELECT GHGS

Gas	Atmospheric Lifetime (years)	Global Warming Potential (100 year time horizon)
Carbon Dioxide	50-200	1
Methane	12 ± 3	21
Nitrous Oxide	120	310
HFC-23	264	11,700
HFC-134a	14.6	1,300
HFC-152a	1.5	140

PFC: Tetrafluoromethane (CH4)	50,000	6,500
PFC: Hexafluoroethane (C2F6)	10,000	9,200
Sulfur Hexafluoride (SF6)	3,200	23,900
Source: EPA 2006 (URL: http://www.epa.gov/nonco2/econ-inv/table.html)		

Water Vapor: Water vapor (H20) is the most abundant, important, and variable greenhouse gas in the atmosphere. Water vapor is not considered a pollutant; in the atmosphere it maintains a climate necessary for life. Changes in its concentration are primarily considered to be a result of climate feedbacks related to the warming of the atmosphere rather than a direct result of industrialization. A climate feedback is an indirect, or secondary, change, either positive or negative, that occurs within the climate system in response to a forcing mechanism. The feedback loop in which water is involved is critically important to projecting future climate change.

As the temperature of the atmosphere rises, more water is evaporated from ground storage (rivers, oceans, reservoirs, soil). Because the air is warmer, the relative humidity can be higher (in essence, the air is able to 'hold' more water when it is warmer), leading to more water vapor in the atmosphere. As a GHG, the higher concentration of water vapor is then able to absorb more thermal indirect energy radiated from the Earth, thus further warming the atmosphere. The warmer atmosphere can then hold more water vapor and so on and so on. This is referred to as a "positive feedback loop." The extent to which this positive feedback loop will continue is unknown as there are also dynamics that hold the positive feedback loop in check. As an example, when water vapor increases in the atmosphere, more of it will eventually also condense into clouds, which are more able to reflect incoming solar radiation (thus allowing less energy to reach the Earth's surface and heat it up).

There are no human health effects from water vapor itself; however, when some pollutants come in contact with water vapor, they can dissolve and the water vapor can then act as a pollutant-carrying agent. The main source of water vapor is evaporation from the oceans (approximately 85 percent). Other sources include: evaporation from other water bodies, sublimation (change from solid to gas) from sea ice and snow, and transpiration from plant leaves.

Carbon Dioxide: Carbon dioxide (CO2) is an odorless and colorless GHG. Outdoor levels of carbon dioxide are not high enough to result in negative health effects. Carbon dioxide is emitted from natural and manmade sources. Natural sources include: the decomposition of dead organic matter; respiration of bacteria, plants, animals and fungus; evaporation from oceans; and volcanic outgassing. Anthropogenic sources include: the burning of coal, oil, natural gas, and wood. Carbon dioxide is naturally removed from the air by photosynthesis, dissolution into ocean water, transfer to soils and ice caps, and chemical weathering of carbonate rocks (19).

Since the industrial revolution began in the mid-1700s, the sort of human activity that increases GHG emissions has increased dramatically in scale and distribution. Data from the past 50

years suggests a corollary increase in levels and concentrations. As an example, prior to the industrial revolution, CO2 concentrations were fairly stable at 280 parts per million (ppm). Today, they are around 370 ppm, an increase of more than 30 percent. Left unchecked, the concentration of carbon dioxide in the atmosphere is projected to increase to a minimum of 540 ppm by 2100 as a direct result of anthropogenic sources(20).

Methane: Methane (CH4) is an extremely effective absorber of radiation, though its atmospheric concentration is less than carbon dioxide and its lifetime in the atmosphere is brief (10-12 years), compared to other GHGs. No health effects are known to occur from exposure to methane.

Methane has both natural and anthropogenic sources. It is released as part of the biological processes in low oxygen environments, such as in swamplands or in rice production (at the roots of the plants). Over the last 50 years, human activities such as growing rice, raising cattle, using natural gas, and mining coal have added to the atmospheric concentration of methane. Other anthropocentric sources include fossil-fuel combustion and biomass burning.

Nitrous Oxide: Nitrous oxide (N2O), also known as laughing gas, is a colorless greenhouse gas. Nitrous oxide can cause dizziness, euphoria, and sometimes slight hallucinations. In small doses, it is considered harmless. However, in some cases, heavy and extended use can cause Olney's Lesions (brain damage) (21).

Concentrations of nitrous oxide also began to rise at the beginning of the industrial revolution. In 1998, the global concentration was 314 parts per billion (ppb). Nitrous oxide is produced by microbial processes in soil and water, including those reactions which occur in fertilizer containing nitrogen. In addition to agricultural sources, some industrial processes (fossil fuel-fired power plants, nylon production, nitric acid production, and vehicle emissions) also contribute to its atmospheric load. It is used as an aerosol spray propellant, i.e., in whipped cream bottles. It is also used in potato chip bags to keep chips fresh. It is used in rocket engines and in race cars. Nitrous oxide can be transported into the stratosphere, be deposited on the Earth's surface, and be converted to other compounds by chemical reaction

Chlorofluorocarbons: Chlorofluorocarbons (CFCs) are gases formed synthetically by replacing all hydrogen atoms in methane or ethane (C2H6) with chlorine and/or fluorine atoms. CFCs are nontoxic, nonflammable, insoluble and chemically unreactive in the troposphere (the level of air at the Earth's surface). CFCs are no longer being used; therefore, it is not likely that health effects would be experienced. Nonetheless, in confined indoor locations, working with CFC-113 or other CFCs is thought to result in death by cardiac arrhythmia (heart frequency too high or too low) or asphyxiation.

CFCs have no natural source, but were first synthesized in 1928. They were used for refrigerants, aerosol propellants and cleaning solvents. Due to the discovery that they are able to destroy stratospheric ozone, a global effort to halt their production was undertaken and was extremely successful, so much so that levels of the major CFCs are now remaining steady or declining. However, their long atmospheric lifetimes mean that some of the CFCs will remain in the atmosphere for over 100 years.

Hydrofluorocarbons: Hydrofluorocarbons (HFCs) are synthetic, man-made chemicals that are used as a substitute for CFCs. Out of all the greenhouse gases, they are one of three groups with the highest global warming potential. The HFCs with the largest measured atmospheric abundances are (in order), HFC-23 (CHF3), HFC-134a (CF3CH2F), and HFC-152a (CH3CHF2). Prior to 1990, the only significant emissions were of HFC-23. HFC-134a emissions are increasing due to its use as a refrigerant. The U.S. EPA estimates that concentrations of HFC-23 and HFC-134a are now about 10 parts per trillion (ppt) each; and that concentrations of HFC-152a are about 1 ppt (22). No health effects are known to result from exposure to HFCs, which are manmade for applications such as automobile air conditioners and refrigerants.

Perfluorocarbons: Perfluorocarbons (PFCs) have stable molecular structures and do not break down through chemical processes in the lower atmosphere. High-energy ultraviolet rays, which occur about 60 kilometers above Earth's surface, are able to destroy the compounds. Because of this, PFCs have very long lifetimes, between 10,000 and 50,000 years. Two common PFCs are tetrafluoromethane (CF4) and hexafluoroethane (C2F6). The U.S. EPA estimates that concentrations of CF4 in the atmosphere are over 70 ppt.

No health effects are known to result from exposure to PFCs. The two main sources of PFCs are primary aluminum production and semiconductor manufacture.

Sulfur Hexafluoride: Sulfur hexafluoride (SF6) is an inorganic, odorless, colorless, nontoxic, nonflammable gas. It also has the highest GWP of any gas evaluated (23,900). The U.S. EPA indicates that concentrations in the 1990s were about 4 ppt. In high concentrations in confined areas, the gas presents the hazard of suffocation because it displaces the oxygen needed for breathing.

Sulfur hexafluoride is used for insulation in electric power transmission and distribution equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas for leak detection.

2.5 EFFECTS OF CLIMATE CHANGE IN CALIFORNIA

Public Health

Higher temperatures may increase the frequency, duration, and intensity of conditions conducive to air pollution formation. For example, days with weather conducive to ozone formation could increase from 25 to 35 percent under the lower warming range to 75 to 85 percent under the medium warming range. In addition, if global background ozone levels increase as predicted in some scenarios, it may become impossible to meet local air quality standards. Air quality could be further compromised by increases in wildfires, which emit fine particulate matter that can travel long distances, depending on wind conditions. The Climate Scenarios report indicates that large wildfires could become up to 55 percent more frequent if GHG emissions are not significantly reduced.

In addition, under the higher warming range scenario, there could be up to 100 more days per year with temperatures above 90oF in Los Angeles and 95oF in Sacramento by 2100. This is a large increase over historical patterns and approximately twice the increase projected if

temperatures remain within or below the lower warming range. Rising temperatures could increase the risk of death from dehydration, heat stroke/exhaustion, heart attack, stroke, and respiratory distress caused by extreme heat.

Water Resources

A vast network of man-made reservoirs and aqueducts captures and transports water throughout the state from northern California rivers and the Colorado River. The current distribution system relies on Sierra Nevada snowpack to supply water during the dry spring and summer months. Rising temperatures, potentially compounded by decreases in precipitation, could severely reduce spring snowpack, increasing the risk of summer water shortages.

If temperatures continue to increase, more precipitation could fall as rain instead of snow, and the snow that does fall could melt earlier, reducing the Sierra Nevada spring snowpack by as much as 70 to 90 percent. Under the lower warming range scenario, snowpack losses could be only half as large as those possible if temperatures were to rise to the higher warming range. How much snowpack could be lost depends in part on future precipitation patterns, the projections for which remain uncertain. However, even under the wetter climate projections, the loss of snowpack could pose challenges to water managers and hamper hydropower generation. It could also adversely affect winter tourism. Under the lower warming range, the ski season at lower elevations could be reduced by as much as a month. If temperatures reach the higher warming range and precipitation declines, there might be many years with insufficient snow for skiing and snowboarding.

The State's water supplies are also at risk from rising sea levels. An influx of saltwater could degrade California's estuaries, wetlands, and groundwater aquifers. Saltwater intrusion caused by rising sea levels is a major threat to the quality and reliability of water within the southern edge of the Sacramento/San Joaquin River Delta – a major fresh water supply.

Agriculture

Increased temperatures could cause widespread changes to the agriculture industry reducing the quantity and quality of agricultural products statewide. First, California farmers could possibly lose as much as 25 percent of the water supply they need. Although higher CO2 levels can stimulate plant production and increase plant water-use efficiency, California's farmers could face greater water demand for crops and a less reliable water supply as temperatures rise. Crop growth and development could change, as could the intensity and frequency of pest and disease outbreaks. Rising temperatures could aggravate O3 pollution, which makes plants more susceptible to disease and pests and interferes with plant growth.

Plant growth tends to be slow at low temperatures, increasing with rising temperatures up to a threshold. However, faster growth can result in less-than-optimal development for many crops, so rising temperatures could worsen the quantity and quality of yield for a number of California's agricultural products. Products likely to be most affected include wine grapes, fruits and nuts.

In addition, continued global climate change could shift the ranges of existing invasive plants and weeds and alter competition patterns with native plants. Range expansion could occur in many species while range contractions may be less likely in rapidly evolving species with significant populations already established. Should range contractions occur, new or different weed species could fill the emerging gaps. Continued global climate change could alter the abundance and types of many pests, lengthen pests' breeding season, and increase pathogen growth rates.

Forests and Landscapes

Global climate change has the potential to intensify the current threat to forests and landscapes by increasing the risk of wildfire and altering the distribution and character of natural vegetation. If temperatures rise into the medium warming range, the risk of large wildfires in California could increase by as much as 55 percent, which is almost twice the increase expected if temperatures stay in the lower warming range. However, since wildfire risk is determined by a combination of factors, including precipitation, winds, temperature, and landscape and vegetation conditions, future risks will not be uniform throughout the state. In contrast, wildfires in northern California could increase by up to 90 percent due to decreased precipitation.

Moreover, continued global climate change has the potential to alter natural ecosystems and biological diversity within the state. For example, alpine and subalpine ecosystems could decline by as much as 60 to 80 percent by the end of the century as a result of increasing temperatures. The productivity of the state's forests has the potential to decrease as a result of global climate change.

Rising Sea Levels

Rising sea levels, more intense coastal storms, and warmer water temperatures could increasingly threaten the state's coastal regions. Under the higher warming range scenario, sea level is anticipated to rise 22 to 35 inches by 2100. Elevations of this magnitude would inundate low-lying coastal areas with salt water, accelerate coastal erosion, threaten vital levees and inland water systems, and disrupt wetlands and natural habitats. Under the lower warming range scenario, sea level could rise 12-14 inches.

2.6 HUMAN HEALTH EFFECTS

The potential health effects related directly to the emissions of carbon dioxide, methane, and nitrous oxide as they relate to development projects such as the proposed Project are still being debated in the scientific community. Their cumulative effects to global climate change have the potential to cause adverse effects to human health. Increases in Earth's ambient temperatures would result in more intense heat waves, causing more heat-related deaths. Scientists also purport that higher ambient temperatures would increase disease survival rates and result in more widespread disease. Climate change will likely cause shifts in weather patterns, potentially resulting in devastating droughts and food shortages in some areas (23). Exhibit 2-A presents the potential impacts of global warming.

Water Vapor: There are no known direct health effects related to water vapor at this time. It should be noted however that when some pollutants react with water vapor, the reaction forms a transport mechanism for some of these pollutants to enter the human body through water vapor.

Carbon Dioxide: According to the National Institute for Occupational Safety and Health (NIOSH) high concentrations of carbon dioxide can result in health effects such as: headaches, dizziness, restlessness, difficulty breathing, sweating, increased heart rate, increased cardiac output, increased blood pressure, coma, asphyxia, and/or convulsions. It should be noted that current concentrations of carbon dioxide in the earth's atmosphere are estimated to be approximately 370 parts per million (ppm), the actual reference exposure level (level at which adverse health effects typically occur) is at exposure levels of 5,000 ppm averaged over 10 hours in a 40-hour workweek and short-term reference exposure levels of 30,000 ppm averaged over a 15 minute period (24).

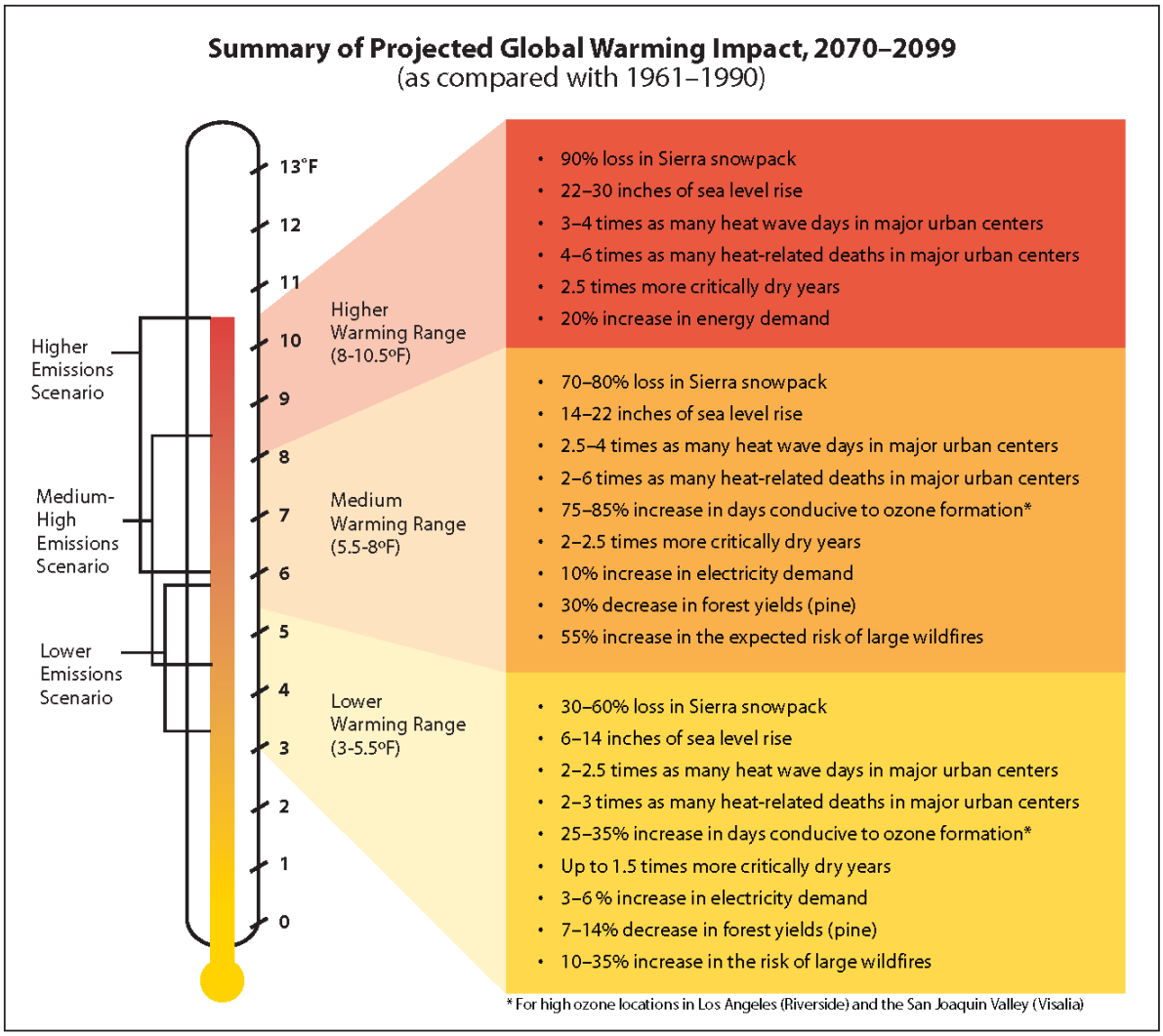
Specific health effects associated with directly emitted GHG emissions are as follows:

Methane: Methane is extremely reactive with oxidizers, halogens, and other halogen-containing compounds. Methane is also an asphyxiant and may displace oxygen in an enclosed space (25).

Nitrous Oxide: Nitrous Oxide is often referred to as laughing gas; it is a colorless greenhouse gas. The health effects associated with exposure to elevated concentrations of nitrous oxide include dizziness, euphoria, slight hallucinations, and in extreme cases of elevated concentrations nitrous oxide can also cause brain damage(25).

Fluorinated Gases: High concentrations of fluorinated gases can also result in adverse health effects such as asphyxiation, dizziness, headache, cardiovascular disease, cardiac disorders, and in extreme cases, increased mortality (24).

EXHIBIT 2-A: SUMMARY OF PROJECTED GLOBAL WARMING IMPACT



Aerosols: The health effects of aerosols are similar to that of other fine particulate matter. Thus aerosols can cause elevated respiratory and cardiovascular diseases as well as increased mortality (26).

2.7 REGULATORY SETTING

International Regulation and the Kyoto Protocol:

In 1988, the United Nations established the Intergovernmental Panel on Climate Change to evaluate the impacts of global warming and to develop strategies that nations could implement to curtail global climate change. In 1992, the United States joined other countries around the world in signing the United Nations' Framework Convention on Climate Change (UNFCCC)

agreement with the goal of controlling greenhouse gas emissions. As a result, the Climate Change Action Plan was developed to address the reduction of GHGs in the United States. The Plan currently consists of more than 50 voluntary programs for member nations to adopt.

The Kyoto protocol is a treaty made under the UNFCCC and was the first international agreement to regulate GHG emissions. Some have estimated that if the commitments outlined in the Kyoto protocol are met, global GHG emissions could be reduced an estimated five percent from 1990 levels during the first commitment period of 2008-2012. Notably, while the United States is a signatory to the Kyoto protocol, Congress has not ratified the Protocol and the United States is not bound by the Protocol's commitments. In December 2009, international leaders from 192 nations met in Copenhagen to address the future of international climate change commitments post-Kyoto.

Federal Regulation and the Clean Air Act:

Coinciding 2009 meeting in Copenhagen, on December 7, 2009, the U.S. Environmental Protection Agency (EPA) issued an Endangerment Finding under Section 202(a) of the Clean Air Act, opening the door to federal regulation of GHGs. The Endangerment Finding notes that GHGs threaten public health and welfare and are subject to regulation under the Clean Air Act. To date, the EPA has not promulgated regulations on GHG emissions, but it has already begun to develop them.

Previously the EPA had not regulated GHGs under the Clean Air Act (27) because it asserted that the Act did not authorize it to issue mandatory regulations to address global climate change and that such regulation would be unwise without an unequivocally established causal link between GHGs and the increase in global surface air temperatures. In Massachusetts v. Environmental Protection Agency et al. (127 S. Ct. 1438 (2007), however, the U.S. Supreme Court held that GHGs are pollutants under the Clean Air Act and directed the EPA to decide whether the gases endangered public health or welfare. The EPA had also not moved aggressively to regulate GHGs because it expected Congress to make progress on GHG legislation, primarily from the standpoint of a cap-and-trade system. However, proposals circulated in both the House of Representative and Senate have been controversial and it may be some time before the U.S. Congress adopts major climate change legislation. The EPA's Endangerment Finding paves the way for federal regulation of GHGs with or without Congress.

Although global climate change did not become an international concern until the 1980s, efforts to reduce energy consumption began in California in response to the oil crisis in the 1970s, resulting in the unintended reduction of greenhouse gas emissions. In order to manage the state's energy needs and promote energy efficiency, AB 1575 created the California Energy Commission (CEC) in 1975.

Title 24 Energy Standards:

The California Energy Commission (CEC) first adopted Energy Efficiency Standards for Residential and Nonresidential Buildings (5) in 1978 in response to a legislative mandate to reduce energy consumption in the state. Although not originally intended to reduce GHG emissions, increased energy efficiency, and reduced consumption of electricity, natural gas, and

other fuels would result in fewer GHG emissions from residential and nonresidential buildings subject to the standard. The standards are updated periodically to allow for the consideration and inclusion of new energy efficiency technologies and methods. The latest revisions were adopted in 2008 and became effective on January 1, 2010.

Part 11 of the Title 24 Building Standards Code is referred to as the California Green Building Standards Code (CALGreen Code) (12). The purpose of the CALGreen Code is to "improve public health, safety and general welfare by enhancing the design and construction of buildings through the use of building concepts having a positive environmental impact and encouraging sustainable construction practices in the following categories: (1) Planning and design; (2) Energy efficiency; (3) Water efficiency and conservation; (4) Material conservation and resource efficiency; and (5) Environmental air quality." The CALGreen Code is not intended to substitute or be identified as meeting the certification requirements of any green building program that is not established and adopted by the California Building Standards Commission (CBSC). The CBSC has released the 2010 California Green Building Standards Code on its Web site. Unless otherwise noted in the regulation, all newly constructed buildings in California are subject of the requirements of the CALGreen Code.

CALGreen contains both mandatory and voluntary measures, for Non-Residential land uses there are 39 mandatory measures including, but not limited to: exterior light pollution reduction, wastewater reduction by 20%, and commissioning of projects over 10,000 sf. There are two tiers of voluntary measures for Non-Residential land uses for a total of 36 additional elective measures.

California's Building Energy Efficiency Standards are updated on an approximately three-year cycle. The 2013 Standards will continue to improve upon the current 2008 Standards for new construction of, and additions and alterations to, residential and nonresidential buildings. The 2013 Building Energy Efficiency Standards are 25 percent more efficient than previous standards for residential construction and 30 percent better for nonresidential construction. The Standards, which take effect on January 1, 2014, offer builders better windows, insulation, lighting, ventilation systems and other features that reduce energy consumption in homes and businesses.

<u>California Assembly Bill No. 1493 (AB 1493):</u>

AB 1493 requires CARB to develop and adopt the nation's first greenhouse gas emission standards for automobiles. The Legislature declared in AB 1493 that global warming was a matter of increasing concern for public health and environment in California (4). Further, the legislature stated that technological solutions to reduce greenhouse gas emissions would stimulate the California economy and provide jobs.

To meet the requirements of AB 1493, ARB approved amendments to the California Code of Regulations (CCR) adding GHG emission standards to California's existing motor vehicle emission standards in 2004. Amendments to CCR Title 13 Sections 1900 (CCR 13 1900) and 1961 (CCR 13 1961) and adoption of Section 1961.1 (CCR 13 1961.1) require automobile manufacturers to meet fleet average GHG emission limits for all passenger cars, light-duty

trucks within various weight criteria, and medium-duty passenger vehicle weight classes beginning with the 2009 model year. Emission limits are further reduced each model year through 2016.

In December 2004 a group of car dealerships, automobile manufacturers, and trade groups representing automobile manufacturers filed suit against ARB to prevent enforcement of CCR 13 1900 and CCR 13 1961 as amended by AB 1493 and CCR 13 1961.1 (Central Valley Chrysler-Jeep et al. v. Catherine E. Witherspoon, in her official capacity as Executive Director of the California Air Resources Board, et al.). The suit, heard in the U.S. District Court for the Eastern District of California, contended that California's implementation of regulations that in effect regulate vehicle fuel economy violates various federal laws, regulations, and policies. In January 2007, the judge hearing the case accepted a request from the State Attorney General's office that the trial be postponed until a decision is reached by the U.S. Supreme Court on a separate case addressing GHGs. In the Supreme Court Case, Massachusetts vs. EPA, the primary issue in question is whether the federal CAA provides authority for USEPA to regulate CO2 emissions. In April 2007, the U.S. Supreme Court ruled in Massachusetts' favor, holding that GHGs are air pollutants under the CAA. On December 11, 2007, the judge in the Central Valley Chrysler-Jeep case rejected each plaintiff's arguments and ruled in California's favor. On December 19, 2007, the USEPA denied California's waiver request. California filed a petition with the Ninth Circuit Court of Appeals challenging USEPA's denial on January 2, 2008.

The Obama administration subsequently directed the USEPA to re-examine their decision. On May 19, 2009, challenging parties, automakers, the State of California, and the federal government reached an agreement on a series of actions that would resolve these current and potential future disputes over the standards through model year 2016. In summary, the USEPA and the U.S. Department of Transportation agreed to adopt a federal program to reduce GHGs and improve fuel economy, respectively, from passenger vehicles in order to achieve equivalent or greater greenhouse gas benefits as the AB 1493 regulations for the 2012–2016 model years. Manufacturers agreed to ultimately drop current and forego similar future legal challenges, including challenging a waiver grant, which occurred on June 30, 2009. The State of California committed to (1) revise its standards to allow manufacturers to demonstrate compliance with the fleet-average GHG emission standard by "pooling" California and specified State vehicle sales; (2) revise its standards for 2012–2016 model year vehicles so that compliance with USEPA-adopted GHG standards would also comply with California's standards; and (3) revise its standards, as necessary, to allow manufacturers to use emissions data from the federal CAFE program to demonstrate compliance with the AB 1493 regulations (CARB 2009, http://www.arb.ca.gov/regact/2009/ghgpv09/ghgpvisor.pdf) both of these programs are aimed at light-duty auto and light-duty trucks.

Executive Order S-3-05:

Executive Order S-3-05, which was signed by Governor Schwarzenegger in 2005, proclaims that California is vulnerable to the impacts of climate change (28). It declares that increased temperatures could reduce the Sierra's snowpack, further exacerbate California's air quality problems, and potentially cause a rise in sea levels. To combat those concerns, the Executive Order established total greenhouse gas emission targets. Specifically, emissions are to be

reduced to the 1990 level by 2020, and to 80% below the 1990 level by 2050. The Executive Order directed the Secretary of the California Environmental Protection Agency (CalEPA) to coordinate a multi-agency effort to reduce greenhouse gas emissions to the target levels. The Secretary also is required to submit biannual reports to the Governor and state Legislature describing: (1) progress made toward reaching the emission targets; (2) impacts of global warming on California's resources; and (3) mitigation and adaptation plans to combat these impacts. To comply with the Executive Order, the Secretary of the CalEPA created a Climate Action Team (CAT) made up of members from various state agencies and commission. CAT released its first report in March 2006. The report proposed to achieve the targets by building on voluntary actions of California businesses, local government and community actions, as well as through state incentive and regulatory programs.

California Assembly Bill 32 (AB 32):

In September 2006, Governor Arnold Schwarzenegger signed AB 32, the California Climate Solutions Act of 2006. AB 32 requires that statewide GHG emissions be reduced to 1990 levels by the year 2020 (2). This reduction will be accomplished through an enforceable statewide cap on GHG emissions that will be phased in starting in 2012. To effectively implement the cap, AB 32 directs CARB to develop and implement regulations to reduce statewide GHG emissions from stationary sources. AB 32 specifies that regulations adopted in response to AB 1493 should be used to address GHG emissions from vehicles. However, AB 32 also includes language stating that if the AB 1493 regulations cannot be implemented, then CARB should develop new regulations to control vehicle GHG emissions under the authorization of AB 32.

AB 32 requires that CARB adopt a quantified cap on GHG emissions representing 1990 emissions levels and disclose how it arrives at the cap; institute a schedule to meet the emissions cap; and develop tracking, reporting, and enforcement mechanisms to ensure that the state achieves reductions in GHG emissions necessary to meet the cap. AB 32 also includes guidance to institute emissions reductions in an economically efficient manner and conditions to ensure that businesses and consumers are not unfairly affected by the reductions.

In November 2007, CARB completed its estimates of 1990 GHG levels. Net emission 1990 levels were estimated at 427 MMTs (emission sources by sector were: transportation – 35 percent; electricity generation – 26 percent; industrial – 24 percent; residential – 7 percent; agriculture – 5 percent; and commercial – 3 percent). Accordingly, 427 MMTs of CO2 equivalent was established as the emissions limit for 2020. For comparison, CARB's estimate for baseline GHG emissions was 473 MMT for 2000 and 532 MMT for 2010. "Business as usual" conditions (without the 28.4 percent reduction to be implemented by CARB regulations) for 2020 were projected to be 596 MMTs.

In December 2007, CARB approved a regulation for mandatory reporting and verification of GHG emissions for major sources. This regulation covered major stationary sources such as cement plants, oil refineries, electric generating facilities/providers, and co-generation facilities, which comprise 94 percent of the point source CO2 emissions in the State.

On December 11, 2008, CARB adopted a scoping plan to reduce GHG emissions to 1990 levels. The Scoping Plan's recommendations for reducing GHG emissions to 1990 levels by 2020 include emission reduction measures, including a cap-and-trade program linked to Western Climate Initiative partner jurisdictions, green building strategies, recycling and waste-related measures, as well as Voluntary Early Actions and Reductions. Implementation of individual measures must begin no later than January 1, 2012, so that the emissions reduction target can be fully achieved by 2020.

Table 2-3 shows the proposed reductions from regulations and programs outlined in the Scoping Plan. While local government operations were not accounted for in achieving the 2020 emissions reduction, local land use changes are estimated to result in a reduction of 5 MMTons of CO2e, which is approximately 3 percent of the 2020 GHG emissions reduction goal. In recognition of the critical role local governments will play in successful implementation of AB 32, CARB is recommending GHG reduction goals of 15 percent of 2006 levels by 2020 to ensure that municipal and community-wide emissions match the state's reduction target. According to the Measure Documentation Supplement to the Scoping Plan, local government actions and targets are anticipated to reduce vehicle miles by approximately 2 percent through land use planning, resulting in a potential GHG reduction of 2 MMTons tons of CO2e (or approximately 1.2 percent of the GHG reduction target).

California Senate Bill No. 1368 (SB 1368):

In 2006, the State Legislature adopted Senate Bill 1368 ("SB 1368"), which was subsequently signed into law by the Governor (9). SB 1368 directs the California Public Utilities Commission ("CPUC") to adopt a greenhouse gas emission performance standard ("EPS") for the future power purchases of California utilities. SB 1368 seeks to limit carbon emissions associated with electrical energy consumed in California by forbidding procurement arrangements for energy longer than five years from resources that exceed the emissions of a relatively clean, combined cycle natural gas power plant. Due to the carbon content of its fuel source, a coal-fired plant cannot meet this standard because such plants emit roughly twice as much carbon as natural gas, combined cycle plants.

Accordingly, the new law will effectively prevent California's utilities from investing in, otherwise financially supporting, or purchasing power from new coal plants located in or out of the State. Thus, SB 1368 will lead to dramatically lower greenhouse gas emissions associated with California energy demand, as SB 1368 will effectively prohibit California utilities from purchasing power from out of state producers that cannot satisfy the EPS standard required by SB 1368.

CEQA Guidelines

CEQA Guideline § 15064.4(a)"A lead agency shall have discretion to determine, in the context of a particular project, whether to: 1. Use a model or methodology to quantify greenhouse gas emissions resulting from a project, and which model or methodology to use . . .; or 2. Rely on a qualitative analysis or performance based standards."

Also amended were CEQA Guidelines Sections 15126.4 and 15130, which address mitigation measures and cumulative impacts respectively. Greenhouse gas mitigation measures are referenced in general terms, but no specific measures are championed. The revision to the cumulative impact discussion requirement (Section 15130) simply directs agencies to analyze greenhouse gas emissions in an EIR when a Project's incremental contribution of emissions may be cumulatively considerable, however it does not answer the question of when emission are cumulatively considerable.

Section 15183.5 permits programmatic greenhouse gas analysis and later project-specific tiering, as well as the preparation of Greenhouse Gas Reduction Plans. Compliance with such plans can support determination that a Project's cumulative effect is not cumulatively considerable, according to proposed Section 15183.5(b).

CEQA emphasizes that the effects of greenhouse gas emissions are cumulative, and should be analyzed in the context of CEQA's requirements for cumulative impacts analysis. (See CEQA Guidelines Section 15130(f)).

Section 15064.4(b) of the CEQA Guidelines provides direction for lead agencies for assessing the significance of impacts of greenhouse gas emissions:

1. The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting;
2. Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project; or
3. The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions. Such regulations or requirements must be adopted by the relevant public agency through a public review process and must include specific requirements that reduce or mitigate the project's incremental contribution of greenhouse gas emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project.

TABLE 2-3: SCOPING PLAN GHG REDUCTION MEASURES TOWARDS 2020 TARGET

Recommended Reduction Measures	*Reductions Counted toward 2020 Target of 169 MMT CO2e*	*Percentage of Statewide 2020 Target*
Cap and Trade Program and Associated Measures		
California Light-Duty Vehicle GHG Standards	31.7	19%
Energy Efficiency	26.3	16%
Renewable Portfolio Standard (33 percent by 2020)	21.3	13%
Low Carbon Fuel Standard	15	9%
Regional Transportation-Related GHG Targets[1]	5	3%
Vehicle Efficiency Measures	4.5	3%
Goods Movement	3.7	2%
Million Solar Roofs	2.1	1%
Medium/Heavy Duty Vehicles	1.4	1%
High Speed Rail	1.0	1%
Industrial Measures	0.3	0%
Additional Reduction Necessary to Achieve Cap	34.4	20%
Total Cap and Trade Program Reductions	146.7	87%
Uncapped Sources/Sectors Measures		
High Global Warming Potential Gas Measures	20.2	12%
Sustainable Forests	5	3%
Industrial Measures (for sources not covered under cap and trade program)	1.1	1%
Recycling and Waste (landfill methane capture)	1	1%
Total Uncapped Sources/Sectors Reductions	27.3	16%
Total Reductions Counted toward 2020 Target	174	100%
Other Recommended Measures – Not Counted toward 2020 Target		
State Government Operations	1.0 to 2.0	1%
Local Government Operations	To Be Determined[2]	NA
Green Buildings	26	15%
Recycling and Waste	9	5%
Water Sector Measures	4.8	3%
Methane Capture at Large Dairies	1	1%
Total Other Recommended Measures – Not Counted toward 2020 Target	42.8	NA

Source: CARB. 2008, MMTons CO2e: million metric tons of CO2e

[1]Reductions represent an estimate of what may be achieved from local land use changes. It is not the SB 375 regional target.

[2]According to the Measure Documentation Supplement to the Scoping Plan, local government actions and targets are anticipated to reduce vehicle miles by approximately 2 percent through land use planning, resulting in a potential GHG reduction of 2 million metric tons of CO2e (or approximately 1.2 percent of the GHG reduction target). However, these reductions were not included in the Scoping Plan reductions to achieve the 2020 Target

Executive Order S-01-07:

On January 18, 2007 California Governor Arnold Schwarzenegger, through Executive Order S-01-07, mandated a statewide goal to reduce the carbon intensity of California's transportation fuel by at least ten percent by 2020 (29). The order also requires that a California specific Low Carbon Fuel Standard be established for transportation fuels.

Senate Bills 1078 and 107 and Executive Order S-14-08:

SB 1078 (Chapter 516, Statutes of 2002) requires retail sellers of electricity, including investor-owned utilities and community choice aggregators, to provide at least 20% of their supply from renewable sources by 2017 (30). SB 107 (Chapter 464, Statutes of 2006) changed the target date to 2010 (29). In November 2008 Governor Schwarzenegger signed Executive Order S-14-08, which expands the state's Renewable Energy Standard to 33% renewable power by 2020 (31).

Senate Bill 375:

SB 375, signed in September 2008 (Chapter 728, Statutes of 2008), aligns regional transportation planning efforts, regional GHG reduction targets, and land use and housing allocation. SB 375 requires metropolitan planning organizations (MPOs) to adopt a sustainable communities strategy (SCS) or alternative planning strategy (APS) that will prescribe land use allocation in that MPO's regional transportation plan. ARB, in consultation with MPOs, will provide each affected region with reduction targets for GHGs emitted by passenger cars and light trucks in the region for the years 2020 and 2035.

These reduction targets will be updated every 8 years but can be updated every 4 years if advancements in emissions technologies affect the reduction strategies to achieve the targets. ARB is also charged with reviewing each MPO's SCS or APS for consistency with its assigned targets. If MPOs do not meet the GHG reduction targets, transportation projects will not be eligible for funding programmed after January 1, 2012.

This law also extends the minimum time period for the regional housing needs allocation cycle from 5 years to 8 years for local governments located within an MPO that meets certain requirements. City or county land use policies (including general plans) are not required to be consistent with the regional transportation plan (and associated SCS or APS). However, new provisions of CEQA would incentivize (through streamlining and other provisions) qualified projects that are consistent with an approved SCS or APS, categorized as "transit priority projects."

The Southern California Association of Governments (SCAG) is required by law to update the Southern California Regional Transportation Plan (RTP) every four years. The 2012 draft plan has been released, this draft plan differs from past plans because it includes development of a SCS. The RTP/SCS incorporates land use and housing policies to meet the greenhouse gas emissions targets established by the California Air Resource Board (CARB) for 2020 (8% reduction) and 2035 (13% reduction). On April 4, 2012, the Regional Council of the Southern

California Association of Governments (SCAG) adopted the 2012-2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS): Towards a Sustainable Future.

CARB's Preliminary Draft Staff Proposal for Interim Significance Thresholds:

Separate from its Scoping Plan approved in December of 2008 (32), CARB issued a Staff Proposal in October 2008, as its first step toward developing recommended statewide interim thresholds of significance for GHGs that may be adopted by local agencies for their own use. CARB staff's objective in this proposal is to develop a threshold of significance that will result in the vast majority (approximately 90 percent statewide) of GHG emissions from new industrial projects being subject to CEQA's requirement to impose feasible mitigation. The proposal does not attempt to address every type of project that may be subject to CEQA, but instead focuses on common project types that, collectively, are responsible for substantial GHG emissions – specifically, industrial, residential, and commercial projects. CARB is developing these thresholds in these sectors to advance climate objectives, streamline project review, and encourage consistency and uniformity in the CEQA analysis of GHG emissions throughout the state. These draft thresholds are under revision in response to comments. There is currently no timetable for finalized thresholds at this time.

As currently proposed by CARB, a quantitative threshold of 7,000 metric tons (MT) of CO2e per year for operational emissions (excluding transportation), and performance standards yet to be defined for construction and transportation emissions are under consideration. However, CARB's proposal is not yet final, and thus cannot be applied to the Project.

South Coast Air Quality Management District Recommendations for Significance Thresholds:

In April 2008, the South Coast Air Quality Management District (SCAQMD), in order to provide guidance to local lead agencies on determining the significance of GHG emissions identified in CEQA documents, convened a "GHG CEQA Significance Threshold Working Group." The goal of the working group is to develop and reach consensus on an acceptable CEQA significance threshold for GHG emissions that would be utilized on an interim basis until CARB (or some other state agency) develops statewide guidance on assessing the significance of GHG emissions under CEQA.

Initially, SCAQMD staff presented the working group with a significance threshold that could be applied to various types of projects—residential; non-residential; industrial; etc (33). However, the threshold is still under development. In December 2008, staff presented the SCAQMD Governing Board with a significance threshold for stationary source projects where it is the lead agency. This threshold uses a tiered approach to determine a project's significance, with 10,000 metric tons of carbon dioxide equivalent (MTCO2e) as a screening numerical threshold for stationary sources. More importantly it should be noted that when setting the 10,000 MTCO2e threshold, the SCAQMD did not consider mobile sources (vehicular travel), rather the threshold is based mainly on stationary source generators such as boilers, refineries, power plants, etc. Therefore it would be misleading to apply a threshold that was developed without consideration for mobile sources to a Project where the majority of emissions are related to mobile sources. Thus there is no SCAQMD threshold that can be applied to this Project.

In September 2010(34), the Working Group released additional revisions that consist of the following recommended tiered approach:

- Tier 1 consists of evaluating whether or not the Project qualifies for applicable CEQA exemptions.
- Tier 2 consists of determining whether or not a Project is consistent with a greenhouse gas reduction plan. If a Project is consistent with a greenhouse gas reduction plan, it would not have a significant impact.
- Tier 3 consists of screening values at the discretion of the lead agency; however they should be consistent for all projects within its jurisdiction. Project-related construction emissions should be amortized over 30 years and should be added back the Project's operational emissions. The following thresholds are proposed for consideration:
    - 3,000 MTCO2e per year for all land use types

      or
    - 3,500 MTCO2e per year for residential; 1,400 MTCO2e per year for commercial; or 3,000 MTCO2e per year for mixed-use projects
- Tier 4 has the following options:
    - Option 1: Reduce emissions from business as usual by a certain percentage (currently undefined)
    - Option 2: Early implementation of applicable AB 32 Scoping Plan measures
    - Option 3: A project-level efficiency target of 4.8 MTCO2e per service population as a 2020 target and 3.0 MTCO2e per service population as a 2035 target. The recommended plan-level target for 2020 is 6.6 MTCO2e and the plan level target for 2035 is 4.1 MTCO2e
- Tier 5 involves mitigation offsets to achieve target significance thresholds

The SCAQMD has also adopted Rules 2700, 2701, and 2702 that address GHG reductions. However, these rules address boilers and process heater, forestry, and manure management projects, none of which are required by the Project

For Analysis Purposes, the Tier 4 Option 1 approach is utilized in this greenhouse gas analysis in order to determine the significance of the Project GHG emissions. An emissions reduction of 28.5% below a business as usual scenario was used as the determining threshold which is consistent with AB 32 reduction target.

2.8 SCAG REGIONAL TRANSPORTATION PLAN/SUSTAINABLE COMMUNITIES STRATEGY

The 2012 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) for the SCAG region was prepared to ensure that the Southern California region attains the per capita vehicle miles targets for passenger vehicles identified by CARB, as required by Senate Bill 375 (35). The Project would be consistent with the plan for integrating the transportation network and related strategies with an overall land use pattern that responds to projected growth, housing needs, changing demographics, and transportation demands. The Project's consistency

with the proposed RTP strategies would therefore not conflict with GHG reduction goals set forth in the SAG 2012 RTP/SCS.

2.9 CITY OF MORENO VALLEY GENERAL PLAN MEASURES

Although the City of Moreno Valley General Plan does not identify specific GHG or climate change policies or goal, a number of the measures identified in the General Plan's Air Quality Element act to reduce or control criteria pollutant emissions and peripherally reduce GHG emissions. The proposed Project has been evaluated for consistency with the City's General Plan Air Quality Element, as shown on Table 2-4.

TABLE 2-4: CITY OF MORENO VALLEY GENERAL PLAN CONSISTENCY

Objective 6.6: Promote land use patterns that reduce daily automotive trips and reduce trip distance for work, shopping, school, and recreation.	**Consistent.** *The Project site is located proximate to existing and proposed major roadways, acting to reduce vehicle trip lengths.*
Objective 6.7: Reduce mobile and stationary source air pollutant emissions.	**Consistent.** *The Project site is located proximate to existing and proposed major roadways, acting to generally reduce vehicle trip lengths, thereby reducing mobile source emissions. The Project will further reduce mobile source emissions by creating local employment opportunities, reducing commuter vehicle miles traveled (VMT) within the region. Additionally, the Project will implement energy efficient designs and operational programs meeting or surpassing California Code of Regulations (CCR) Title 24 Building Standards, including but not limited to compliance with or betterment of, energy conservation requirements identified at CCR Title 24, Part 6, Energy Code. Energy efficient designs and programs implemented by the Project reduce resources consumption with correlating reductions in stationary-source emissions.*
Policy 6.7.5: Require grading activities to comply with South Coast Air Quality Management District's Rule 403 regarding the control of fugitive dust.	**Consistent.** *The Project will be required to implement fugitive dust control measures consistent with SCAQMD Rule 403.*
Policy 6.7.6: Require building construction to comply with the energy conservation requirements of Title 24 of the California Administrative Code [California Code of Regulations].	**Consistent.** *Pursuant to City and State Building Code requirements, the Project will meet or surpass applicable CCR Title 24 energy conservation requirements.*

Source: City of Moreno Valley General Plan, Safety Element

2.10 CITY OF MORENO VALLEY ENERGY EFFICIENCY AND CLIMATE ACTION STRATEGY

The City of Moreno Valley released an Energy Efficiency and Climate Action Strategy (CAS) as well as a Greenhouse Gas Analysis for public review on May 8, 2012. The documents were approved on October 9, 2012. The CAS identifies ways that the City can reduce energy and water consumption and greenhouse gas emissions as an organization (its employees and the operation of its facilities) and outlines the actions that the City can encourage and community members can employ to reduce their own energy and water consumption and greenhouse gas emissions. The policies in the document are to reduce greenhouse gas emissions in 2010 by 15 percent by 2020. The following consists of an analysis of project consistency with the policies in the CAS.

- R2-T1: Land Use Based Trips and VMT Reduction Policies. Encourage the development of Transit Priority Projects along High Quality Transit Corridors identified in the SCAG Sustainable Communities Plan, to allow a reduction in vehicle miles traveled.

  Project consistency: Not applicable.

- R2-T3: Employment-Based Trip Reductions. Require a Transportation Demand Management (TDM) program for new development to reduce automobile travel by encouraging ride-sharing, carpooling, and alternative modes of transportation.

  Project consistency: Consistent with implementation of MM AQ-4.

- R2-E1: New Construction Residential Energy Efficiency Requirements. Require energy efficient design for all new residential buildings to be 10 percent beyond the current Title 24 standards. (Reach Code)

  Project consistency: Not applicable; this measure applies to residential projects.

- R2-E2: New Construction Residential Renewable Energy. Facilitate the use of renewable energy (such as solar (photovoltaic) panels or small wind turbines) for new residential developments. Alternative approach would be the purchase of renewable energy resources offsite.

  Project consistency: Not applicable; this measure applies to residential projects.

- R2-E5: New Construction Commercial Energy Efficiency Requirements. Require energy efficient design for all new commercial buildings to be 10% beyond the current Title 24 standards. (Reach Code)

  Project consistency: Not consistent; the buildings constructed in the project may not exceed Title 24 standards by 10 percent; however, MM AQ-2 encourages energy efficient design.

- R3-E1: Energy Efficient Development, and Renewable Energy Deployment Facilitation and Streamlining. Updating of codes and zoning requirements and guidelines to further implement green building practices. This could include incentives for energy efficient projects.

- Project consistency: Not applicable.

- R3-L2: Heat Island Plan. Develop measures that address "heat islands." Potential measures include using strategically placed shade trees, using paving materials with a Solar Reflective Index of at least 29, an open grid pavement system, or covered parking.

  Project consistency: Consistent; the Project will encourage vehicle parking areas are to be landscaped to provide a shade canopy (50 percent coverage at maturity).

- R2-W1: Water Use Reduction Initiative. Consider adopting a per capita water use reduction goal, which mandates the reduction of water use of 20 percent per capita with requirements applicable to new development and with cooperative support of the water agencies.

  Project consistency: Consistent. California Green Building Standards Code, Chapter 5, Division 5.3, Section 5.303.2 requires that indoor water use be reduced by 20 percent. Section 5.304.3 requires irrigation controllers and sensors. MM AQ-3 also requires water conservation.

- R3-W1: Water Efficiency Training and Education. Work with EMWD and local water companies to implement a public information and education program that promotes water conservation.

  Project consistency: Not applicable.

- R2-S1: City Diversion Program. For Solid Waste, consider a target of increasing the waste diverted from the landfill to a total of 75 percent by 2020.

  Project consistency: Not applicable.

As shown above and in Appendix 3.2, Project Consistency with Moreno Valley Energy Efficiency and Climate Action Strategy, of this report, many of the measures are not applicable to the project. The project is consistent with the applicable measures in the Strategy, with the

exception of R2-E5, New Construction Commercial Energy Efficiency Requirements. Therefore, the project is partially consistent with the CAS.

2.11 CONSISTENCY WITH CARB SCOPING PLAN

Table 3-5 below, presents the 39 Recommended Actions (qualitative measures) identified to date by CARB in its Climate Change Proposed Scoping Plan. Of the 39 measures identified, those that would be considered to be applicable to the Project would primarily be those actions related to transportation, electricity and natural gas use, green building design and industrial uses. Consistency of the Project with these measures is evaluated by each source-type measure below. Table 3-5 identifies which CARB Recommended Actions apply to the Project, and of those, whether the Project is consistent therewith. A discussion of how the Project is consistent with each applicable CARB Recommended Action is set forth after Table 3-5.

TABLE 2-5: RECOMMENDED ACTIONS FOR CLIMATE CHANGED PROPOSED SCOPING PLAN

ID #	Sector	Strategy Name	Applicable to Project?	Will Project Conflict With Implementation?
T-1	Transportation	Pavley I and II – Light-Duty Vehicle GHG Standards	NO	NO
T-2	Transportation	Low Carbon Fuel Standard (Discrete Early Action)	NO	NO
T-3	Transportation	Regional Transportation-Related GHG Targets	NO	NO
T-4	Transportation	Vehicle Efficiency Measures	NO	NO
T-5	Transportation	Ship Electrification at Ports (Discrete Early Action)	NO	NO
T-6	Transportation	Goods-movement Efficiency Measures	NO	NO
T-7	Transportation	Heavy Duty Vehicle Greenhouse Gas Emission Reduction Measure – Aerodynamic Efficiency (Discrete Early Action)	NO	NO
T-8	Transportation	Medium and Heavy-Duty Vehicle Hybridization	NO	NO
T-9	Transportation	High Speed Rail	NO	NO
E-1	Electricity and Natural Gas	Increased Utility Energy efficiency programs More stringent Building and Appliance Standards	YES	NO
E-2	Electricity and Natural Gas	Increase Combined Heat and Power Use by 30,000GWh	NO	NO
E-3	Electricity and Natural Gas	Renewable Portfolio Standard	NO	NO
E-4	Electricity and Natural Gas	Million Solar Roofs	YES	NO
CR-1	Electricity and Natural Gas	Energy Efficiency	YES	NO
CR-2	Electricity and Natural Gas	Solar Water Heating	NO	NO
GB-1	Green Buildings	Green Buildings	YES	NO
W-1	Water	Water Use Efficiency	YES	NO
W-2	Water	Water Recycling	NO	NO
W-3	Water	Water System Energy Efficiency	YES	NO
W-4	Water	Reuse Urban Runoff	NO	NO
W-5	Water	Increase Renewable Energy Production	NO	NO
W-6	Water	Public Goods Charge (Water)	NO	NO
I-1	Industry	Energy Efficiency and Co-benefits Audits for Large Industrial Sources	YES	NO
I-2	Industry	Oil and Gas Extraction GHG Emission Reduction	NO	NO
I-3	Industry	GHG Leak Reduction from Oil and Gas Transmission	NO	NO
I-4	Industry	Refinery Flare Recovery Process Improvements	NO	NO
I-5	Industry	Removal of Methane Exemption from Existing Refinery Regulations	NO	NO
RW-1	Recycling and Waste Management	Landfill Methane Control (Discrete Early Action)	NO	NO
RW-2	Recycling and Waste Management	Additional Reductions in Landfill Methane – Capture Improvements	NO	NO
RW-3	Recycling and Waste Management	High Recycling/Zero Waste	NO	NO
F-1	Forestry	Sustainable Forest Target	NO	NO
H-1	High Global Warming Potential Gases	Motor Vehicle Air Conditioning Systems (Discrete Early Action)	NO	NO
H-2	High Global Warming Potential Gases	SF_6 Limits in Non-Utility and Non-Semiconductor Applications (Discrete Early Action)	NO	NO
H-3	High Global Warming Potential Gases	Reduction in Perflourocarbons in Semiconductor Manufacturing (Discrete Early Action)	NO	NO
H-4	High Global Warming Potential Gases	Limit High GWP Use in Consumer Products (Discrete Early Action, Adopted June 2008)	NO	NO
H-5	High Global Warming Potential Gases	High GWP Reductions from Mobile Sources	NO	NO
H-6	High Global Warming Potential Gases	High GWP Reductions from Stationary Sources	NO	NO
H-7	High Global Warming Potential Gases	Mitigation Fee on High GWP Gases	NO	NO
A-1	Agriculture	Methane Capture at Large Dairies	NO	NO

SOURCE: CARB, 2008.

Discussion of the applicability of each measure and Project consistency with or support of its implementation follows. It also noted that certain measures and enforcement actions listed below are beyond the scope of control of the Project. Notwithstanding implementation and enforcement of these measures by the State or other responsible entity will act to reduce areawide GHG emissions.

Transportation

CARB's Scoping Plan identifies nine transportation-related recommended actions. Action T-1 concerns improvements to light-duty vehicle technology for the purposes of reducing GHG emissions. This action focuses on legislating improved controls for vehicle manufacturers and would not generally be considered applicable to the proposed Project. Implementation of the Pavley standards is dependent on implementation by the State on vehicle fuel economy standards.

Implementation of such a standard is not within the purview of this Project. Therefore, the proposed Project would not conflict with measures concerning the Pavley standards.

Action T-2 concerns implementation of a low carbon fuel standard. To reduce the carbon intensity of transportation fuels, CARB is developing a Low Carbon Fuel Standard (LCFS), which would reduce the carbon intensity of California's transportation fuels by at least ten percent by 2020 as called for by Governor Schwarzenegger in Executive Order S-01-07. LCFS will incorporate compliance mechanisms that provide flexibility to fuel providers in how they meet the requirements to reduce greenhouse gas emissions.

Implementation of such a standard is not within the purview of a this Project. Therefore, the proposed Project would not conflict with measures concerning the use of low carbon fuels.

Action T-3 addressees regional transportation targets for reducing GHG emissions. SB 375 requires CARB to develop, in consultation with metropolitan planning organizations (MPOs), passenger vehicle greenhouse gas emissions reduction targets for 2020 and 2035. It sets forth a collaborative process to establish these targets, including the appointment by CARB of a Regional Targets Advisory Committee to recommend factors to be considered and methodologies for setting greenhouse gas emissions reduction targets. SB 375 also provides incentives – relief from certain California Environmental Quality Act (CEQA) requirements for development projects that are consistent with regional plans that achieve the targets.

Implementation of such a standard is not within the purview of this Project. Therefore, the proposed Project would not conflict with measures concerning SB375.

Action T-4 is concerned with vehicle efficiency measures. The California Integrated Waste Management Board (CIWMB) with various partners continues to conduct a public awareness campaign to promote sustainable tire practices. CARB is pursuing a regulation to ensure that tires are properly inflated when vehicles are serviced. In addition, CEC in consultation with CIWMB is developing an efficient tire program focusing first on data gathering and outreach, then on potential adoption of minimum fuel-efficient tire standards, and lastly on the development of consumer information requirements for replacing tires. CARB is also pursuing

ways to reduce engine load via lower friction oil and reducing the need for air conditioner use. ARB is actively engaged in the regulatory development process for the tire inflation component of this measure.

Implementation of such a standard is not within the purview of this Project. Therefore, the proposed Project would not conflict with applicable measures.

Action T-5 addresses electrification of ships at ports and is not applicable to the proposed Project.

Action T-6 also primarily addresses port operations and is not applicable to the proposed Project.

Action T-7 requires existing trucks/trailers to be retrofitted with the best available technology and/or CARB-approved technology.

Implementation of such a standard is not within the purview of the proposed Project since various trucks fleets from numerous commercial entities may access the site. Therefore, the proposed Project would not conflict with this measure.

Action T-8 focuses on hybridization of medium- and heavy-duty vehicles. The implementation approach to Action T-8 is to adopt a regulation and/or incentive program that reduces GHG emissions by encouraging hybrid technology as applied to vocational applications that have significant urban, stop-and-go driving, idling, and power take-off operations in their duty cycle. Such applications include parcel delivery trucks and vans.

Implementation of such a standard is not within the purview of the proposed Project since various trucks fleets from numerous commercial entities may access the site. Therefore, the proposed Project would not conflict with this measure.

Action T-9 concerns implementation of a high speed rail system. This measure is not applicable to the Project.

Electricity and Natural Gas

Action E-1/CR-1, together with Action GB-1 (Green Building), aims to reduce electricity demand by increased efficiency of Utility Energy Programs and adoption of more stringent building and appliance standards.

The Project will comply with or surpass incumbent Title 24 Energy Efficiency Standards.. Therefore, the proposed Project would not conflict with this measure.

Action E-2 encourages an increase in the use of combined heat and power (CHP) use, or co-generation, facilities. California has supported CHP for many years, but market and other barriers continue to keep CHP from reaching its full market potential. Increasing the deployment of efficient CHP will require a multi-pronged approach that includes addressing significant barriers and instituting incentives or mandates where appropriate.

Implementation of such a standard is not within the purview of the proposed Project; therefore, the proposed Project would not conflict with this measure.

Action E-3 concerns Renewable Portfolio Standards for utilities and does not apply to development projects.

Action E-4 strives to promote solar generated electricity.

Project building designs will accommodate renewable energy sources, such as photovoltaic solar electricity systems, appropriate to their architectural design(s). The Project would therefore not conflict with the recommended measure.

Action CR-2 strives to promote solar water heaters (SWH). The ARB recommends that California pursue approaches with the goal of developing a viable SWH industry for 2020 and beyond.

Implementation of such a standard is not within the purview of the Project; therefore, the proposed Project would not conflict with this measure.

Water Use

Implementation of all but two of the Recommended Actions related to water use are not within the purview of the proposed Project. The two measures that apply are measures W-1 (Water Use Efficiency) and W-3 (Water System Energy Efficiency). However, since the proposed Project would not exceed the audit threshold of 25,000 MT CO_2 (36) from on-site combustion and related activities, the proposed Project is consistent with and would not obstruct the recommended actions.

Industrial Use

All but one of the Recommended Actions related to industrial use are specific to oil and gas extraction, refining and transmission and are not applicable to the proposed Project. The one other Action I-1 targets large emitters of GHGs (in excess of 0.5 million metric tons (MMT)/year of CO_2E (equivalent)) for auditing[4] (37). Because the proposed Project would not exceed the audit threshold, as set forth in Section 3.0, the proposed Project is consistent with and would not obstruct the recommended actions.

Consistency with GHG Emission Reduction Strategies set forth in the 2006 CAT Report

2.12 CONSISTENCY WITH GHG EMISSION REDUCTION STRATEGIES SET FORTH IN THE 2006 CAT REPORT

Table 2-6 sets forth the emission reduction strategies set forth in the 2006 CAT Report along with an explanation as to how the Project is consistent therewith. Table 3-6 also notes whether the strategy is applicable to the Project:

Although implementation of the CAT strategies would reduce GHG emissions to the extent possible, it is not possible to specifically quantify the reduction in GHG that will result from implementation of CAT strategies and programs. However, a project that is consistent with CAT

[4] Certain "covered sectors" of activities in California account for 85% of GHG emissions. Each source in these sectors will be subject to a system of declining GHG emissions allowances issued by CARB under a total emissions cap, as well as an allowance trading system. The Plan's lynch-pin is a cap-and-trade program that would apply to the electricity sector, the transportation sector, the commercial and residential sector, and large industrial sources (those emitting more than 0.5 million metric tons per year of carbon dioxide ("CO2") equivalents).

strategies is consistent with the strategies suggested to reduce California's emissions to the levels proposed by Executive Order S-3-05 and AB 32, and therefore the Project will result in a less than significant impact on GCC.

TABLE 2-6: PROJECT COMPLIANCE W/ APPLICABLE 2006 CAT REPORT GHG REDUCTION STRATEGIES

Strategy	Remarks
California Air Resource Board	
Vehicle Climate Change Standards AB 1493 (Pavley) required the state to develop and adopt regulations that achieve the maximum feasible and cost-effective reduction of climate change emissions emitted by passenger vehicles and light duty trucks. Regulations were adopted by the ARB in September 2004.	The noted measures are beyond the purview of the Project. Their implementation by the State and others will act to reduce areawide GHG emissions.
Other Light Duty Vehicle Technology New standards would be adopted to phase in beginning in the 2017 model.	
Heavy-Duty Vehicle Emission Reduction Measures Increased efficiency in the design of heavy-duty vehicles and an education program for the heavy-duty vehicle sector.	
Diesel Anti-Idling In July 2004, the CARB adopted a measure to limit diesel-fueled commercial motor vehicle idling.	Compliant. Heavy-duty diesel trucks that access the project site will be required to limit idling to no more than five minutes.
Hydrofluorocarbon Reduction 1) Ban retail sale of HFC in small cans; 2) Require that only low GWP refrigerants be used in new vehicular systems; 3) Adopt specifications for new commercial refrigeration; 4) Add refrigerant leak-tightness to the pass criteria for vehicular Inspection and Maintenance programs; 5) Enforce federal ban on releasing HFCs.	The noted measures are beyond the purview of the Project. Their implementation by the State and others will act to reduce areawide GHG emissions.
Transportation Refrigeration Units (TRUs), Off-Road Electrification, Port Electrification Strategies to reduce emissions from TRUs, increase off-road electrification, and increase use of shore-side/port electrification.	The noted measures are beyond the purview of the Project. Their implementation by the State and others will act to reduce areawide GHG emissions. Further, no refrigerated truck units will access the Project site, nor does the Project proposed refrigerated warehousing.
Alternative Fuels: Biodiesel Blends CARB would develop regulations to require the use of 1 to 4 percent biodiesel displacement of California diesel fuel.	The noted measures are beyond the purview of the Project. Their implementation by the State and others will act to reduce areawide GHG emissions.
Reduced Venting and Leaks in Oil and Gas Systems Rule considered for adoption by the Air Pollution Control Districts for improved management practices.	The noted measures are beyond the purview of the Project. Their implementation by the State and others will act to reduce areawide GHG emissions.
Hydrogen Highway The California Hydrogen Highway Network (CA H_2 Net) is a State initiative to promote the use of hydrogen as a means of diversifying the sources of transportation energy.	The noted measures are beyond the purview of the Project. Their implementation by the State and others will act to reduce areawide GHG emissions.
Integrated Waste Management Board	
Achieve 50 percent Statewide Recycling Goal Achieving the State's 50 percent waste diversion mandate as established by the Integrated Waste Management Act of 1989, (AB 939, Sher, Chapter 1095, Statutes of 1989), will reduce climate change emissions associated with energy intensive material extraction and production as well as methane emission from landfills. A diversion rate of 48 percent has been achieved on a statewide basis. Therefore, a 2 percent additional reduction is needed.	Compliant. The project is required to comply with the City's Source Reduction and Recycling Element (SRRE). To this end, the Project design includes provisions for tenants to recycle. In accordance with the California Solid Waste Reuse and Recycling Act of 1991 (Cal Pub Res. Code § 42911), the Project would provide adequate areas for collecting and loading recyclable materials where solid waste is collected. The collection areas are required to be shown on construction drawings and be in place before occupancy permits are issued.
Zero Waste - High Recycling Additional recycling beyond the State's 50 percent recycling goal.	
Department of Forestry	
Forest Management Strategies for storing more carbon through forest management activities can involve a range of management activities such as increasing either the growth of individual trees, the overall age of trees prior to harvest, or dedicating land to older age trees.	The noted measures are beyond the purview of the Project. Their implementation by the State and others will act to reduce areawide GHG emissions.
Forest Conservation	The noted measures are beyond the purview of the Project. Their

Conservation projects are designed to minimize/prevent the climate change emissions that are associated with the conversion of forestland to non-forest uses by adding incentives to maintain an undeveloped forest landscape.	implementation by the State and others will act to reduce areawide GHG emissions.
Fuels Management/Biomass Large, episodic, unnaturally hot fires are an increasing trend on California's wild lands because of decades of fire suppression activities, sustained drought, and increasing insect, disease, and invasive plans infestations. Actions taken to reduce wildfire severity through fuel reduction and biomass development would reduce climate change emissions from wildfire, increase carbon sequestration, replace fossil fuels, and provide significant economic development opportunities.	The noted measures are beyond the purview of the Project. Their implementation by the State and others will act to reduce areawide GHG emissions.
Urban Forestry A new statewide goal of planting 5 million trees in urban areas by 2020 would be achieved through the expansion of local urban forestry programs.	The Project does not involve or propose a formal urban forestry program. Nor has the City adopted or implemented an urban forestry program. Notwithstanding, the Project will construct landscaping improvements, including tree plantings, consistent with the City's landscape design guidelines.
Afforestation/Reforestation Projects Reforestation projects focus on restoring native tree cover on lands that were previously forested and are now covered with other vegetative types.	The noted measures are beyond the purview of the Project. Their implementation by the State and others will act to reduce areawide GHG emissions.
Department of Water Resources	
Water Use Efficiency Approximately 19 percent of all electricity, 30 percent of all natural gas, and 88 million gallons of diesel are used to convey, treat, distribute and use water and wastewater. Increasing the efficiency of water transport and reducing water use would reduce GHG emissions.	Compliant. The Project shall implement U.S. EPA Certified WaterSense labeled or equivalent faucets and high-efficiency toilets (HETs), and implement water-conserving shower heads where applicable.
California Energy Commission (CEC)	
Building Energy Efficiency Standards in Place and in Progress Public Resources Code 25402 authorizes the CEC to adopt and periodically update its building energy efficiency standards (that apply to newly constructed buildings and additions to and alterations to existing buildings).	Compliant. Project will be compliant with incumbent California Code of Regulations, Title 24 (Energy Efficiency Standards for Residential and Nonresidential Buildings).
Appliance Energy Efficiency Standards in Place and in Progress Public Resources Code 25402 authorizes the Energy Commission to adopt and periodically update its appliance energy efficiency standards (that apply to devices and equipment using energy that are sold or offered for sale in California).	Compliant. Appliances purchased for use in the Project will be consistent with all applicable energy efficiency standards.
Fuel-Efficient Replacement Tires & Inflation Programs State legislation (Chapter 912, Statues of 2001) directed the Energy Commission to investigate and to recommend ways to improve fuel efficiency of vehicle tires. The bill established a statewide program to encourage the production and use of more fuel efficient tires.	Not Applicable. The noted measures are beyond the purview of the Project. Their implementation by the State and others will act to reduce areawide GHG emissions.
Cement Manufacturing Cost-effective reductions to reduce energy consumption and to lower carbon dioxide emissions in the cement industry.	Not Applicable. The noted measures are beyond the purview of the Project. Their implementation by the State and others will act to reduce areawide GHG emissions.
Municipal Utility Strategies Includes energy efficiency programs, renewable portfolio standard, combined heat and power, and transitioning away from carbon-intensive generation.	Not Applicable. The noted measures are beyond the purview of the Project. Their implementation by the State and others will act to reduce areawide GHG emissions.
Alternative Fuels: non-Petroleum Fuels Increasing the use of non-petroleum fuels in California's transportation sector, as recommended in the CEC=s 2003 and 2005 Integrated Energy Policy Reports.	Not Applicable. The noted measures are beyond the purview of the Project. Their implementation by the State and others will act to reduce areawide GHG emissions.
Business Transportation and Housing	

Smart Land Use and Intelligent Transportation Systems (ITS) Smart land use strategies encourage jobs/housing proximity, promote transit-oriented development, and encourage high-density residential/commercial development along transit corridors. ITS is the application of advanced technology systems and management strategies to improve operational efficiency of transportation systems and movement of people, goods and services. Governor Schwarzenegger is finalizing a comprehensive 10-year strategic growth plan with the intent of developing ways to promote, through state investments, incentives and technical assistance, land use, and technology strategies that provide for a prosperous economy, social equity, and a quality environment.	Compliant. The Project is proximate to serving transportation corridors, thereby promoting operational efficiencies.
Measures to Improve Transportation Energy Efficiency Builds on current efforts to provide a framework for expanded and new initiatives including incentives, tools and information that advance cleaner transportation and reduce climate change emissions.	Compliant. The Project promotes transportation efficiencies through its location proximate to serving transportation corridors. Moreover, distribution warehouse uses such as those proposed by the Project act to consolidate regional transport and delivery of goods, thereby reducing VMT within the region, further improving transportation efficiencies. trips
Department of Food and Agriculture	
Conservation tillage/cover crops Conservation tillage and cover crops practices are increasingly being used by California farmers for a variety of reasons, including improved soil tilth, improved water use efficiency, reduced tillage requirements, saving labor and fuel, and reduced fertilizer inputs.	The noted measures are beyond the purview of the Project. Their implementation by the State and others will act to reduce areawide GHG emissions.
Enteric Fermentation Cattle emit methane from digestion processes. Changes in diet could result in a reduction in emissions.	Not Applicable. The noted measures are beyond the purview of the Project. Their implementation by the State and others will act to reduce areawide GHG emissions.
State and Consumer Services Agency	Not Applicable.
Green Buildings Initiative Green Building Executive Order, S-20-04 (CA 2004), sets a goal of reducing energy use in public and private buildings by 20 percent by the year 2015, as compared with 2003 levels.	Compliant. The Project will meet or surpass Title 24 Energy Efficiency standards, acting to reduce area source GHG emissions. Further, State mandated programs (Pavely et al.) will act to substantively reduce mobile-source GHG emissions. Additionally, the Project is required to comply with the mandatory provisions of the California Green Building Standards Code (CALGreen) pursuant to the California Code of Regulations, Title 24, which became effective on January 1, 2011.
Public Utilities Commission (PUC)	
Accelerated Renewable Portfolio Standard The Governor has set a goal of achieving 33 percent renewables in the State's resource mix by 2020. The joint PUC/Energy Commission September 2005 Energy Action Plan II (EAP II) adopts the 33 percent goal.	Not Applicable. The noted measures are beyond the purview of the Project. Their implementation by the State and others will act to reduce areawide GHG emissions.
California Solar Initiative Installation of 1 million solar roofs or an equivalent 3,000 MW by 2017 on homes and businesses; increased use of solar thermal systems to offset the increasing demand for natural gas; use of advanced metering in solar applications; and creation of a funding source that can provide rebates over 10 years through a declining incentive schedule.	Compliant. Project buildings will be designed to accommodate renewable energy sources, such as photovoltaic solar energy systems as is economically and physically feasible.
Investor-Owned Utility This strategy includes energy efficiency programs, combined heat and power initiative, and electricity sector carbon policy for investor owned utility.	Not Applicable. The noted measures are beyond the purview of the Project. Their implementation by the State and others will act to reduce areawide GHG emissions.

3 PROJECT GREENHOUSE GAS IMPACT

3.1 INTRODUCTION

The Project has been evaluated to determine if it will result in a significant greenhouse gas impact. The significance of these potential impacts is described in the following section.

3.2 STANDARDS OF SIGNIFICANCE

The criteria used to determine the significance of potential Project-related greenhouse gas impacts are taken from the Initial Study Checklist in Appendix G of the State CEQA Guidelines (14 California Code of Regulations §§15000, et seq.). Based on these thresholds, a project would result in a significant impact related to air quality if it would:

- Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?
- Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

In order to assess the significance of a proposed Project's environmental impacts it is necessary to identify quantitative or qualitative thresholds which, if exceeded, would constitute a finding of significance. As discussed above, while Project-related GHG emissions can be estimated, the direct impacts of such emissions on climate change and global warming cannot be determined on the basis of available science. There is no evidence at this time that would indicate that the emissions from a project the size of the proposed Project would directly or indirectly affect global climate change.

AB 32 states, in part, that "[g]lobal warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California (2)." Because global warming is the result of GHG emissions, and GHGs are emitted by innumerable sources worldwide, global climate change is considered to be a cumulative impact.

As previously discussed, CEQA guidelines indicate that a project would result in a significant impact on climate change if a project were to: a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment. Or b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

Based on the above factors (and particularly the adopted addition of CEQA Guideline § 15064.4, subdivisions (b)(2) and (b)(3), the City of Moreno Valley (the lead agency for the proposed project) has determined it is appropriate to rely on AB 32 implementation guidance as one benchmark for purposes of this analysis (38). In adopting AB 32, the legislature determined the necessary GHG reductions for the state to make in order to sufficiently offset its contribution to the cumulative climate change problem. Accordingly, the project's GHG emission levels will be analyzed to determine whether project approval would impede compliance with the GHG emissions reduction mandate established by AB 32 which requires that California's GHG

emissions limit be reduced to 1990 levels by 2020. As noted in the scoping Plan (39), a reduction of 28.5 percent below the "business as usual" scenario is required to meet the goals of AB 32 (40).

Specifically, to understand what percentage reduction in emissions would be required to achieve AB 32's goals, CARB first determined that the 1990 baseline GHG emission level is 427 (MMT) CO2E. CARB then estimated the statewide emissions that would be generated in the 2020 assuming (see Appendix F of CARB 2008). CARB's prediction for 2020 emissions is 596 MMT CO2E, assuming "business as usual." The 2020 business-as-usual forecast does not take any credit for reductions from GHG measures included in the Scoping Plan, including those enacted before AB 32. Accordingly, AB 32's mandated decrease in GHG emissions from 596 to 427 MMT CO2E is equivalent to a 28.5% emissions reduction. Thus, this AB 32 mandate would require a 28.5% reduction in emissions relative to the 2020 business-as-usual scenario by 2020.

Further, Section 15064(h) (3) of the CEQA Guidelines authorizes lead agencies to conclude that a project's incremental contribution to a cumulative effect is not cumulatively considerable:

> [I]f the project will comply with the requirements in a previously approved plan or mitigation program ... that provides specific requirements that will avoid or substantially lessen the cumulative problem within the geographic area in which the project is located. Such plans or programs must be specified in law or adopted by the public agency with jurisdiction over the affected resources through a public review process to implement, interpret, or make specific the law enforced or administered by the public agency.

Pursuant to Guidelines Section 15064(h)(3) for a project consistent with AB 32's goal, which would require a 28.5 percent or greater reduction from BAU, project specific and cumulative climate change impacts would be less than significant. This approach is consistent with guidance released by SCAQMD, Riverside County, San Joaquin Air Pollution Control District (SJVAPCD) and Bay Area Air Quality Management District (BAAQMD). The AB 32 consistency threshold was also upheld in Citizens for Responsible Equitable Environmental Development v. City of Chula Vista (2011) 197 Cal.App.4th 327. Section 15064.7 of the CEQA Amendments states that "[w]hen adopting thresholds of significance, a lead agency may consider thresholds of significant previously adopted or recommended by other public agencies or recommended by experts."

3.3 PROJECT RELATED GREENHOUSE GAS EMISSIONS

CEQA Guidelines 15064.4 (b) (1) states that a lead agency may use a model or methodology to quantify greenhouse gas emissions associated with a project (41).

On October 2, 2013, the SCAQMD in conjunction with the California Air Pollution Control Officers Association (CAPCOA) released the latest version of the California Emissions Estimator Model™ (CalEEMod™) v2013.2.2. The purpose of this model is to more accurately calculate construction-source and operational-source criteria pollutant (NO_x, VOC, PM_{10}, $PM_{2.5}$, SO_x, and CO) and greenhouse gas (GHG) emissions from direct and indirect sources; and quantify applicable air quality and GHG reductions achieved from mitigation measures (42). Accordingly,

the latest version of CalEEMod™ has been used for this Project to determine construction and operational air quality impacts. Output from the model runs for both construction and operational activity are provided in Appendix 3.1

3.4 CONSTRUCTION AND OPERATIONAL LIFE-CYCLE ANALYSIS

A full life-cycle analysis (LCA) for construction and operational activity is not included in this analysis due to the lack of consensus guidance on LCA methodology at this time. Life-cycle analysis (i.e., assessing economy-wide GHG emissions from the processes in manufacturing and transporting all raw materials used in the project development, infrastructure and on-going operations) depends on emission factors or econometric factors that are not well established for all processes. At this time a LCA would be extremely speculative and thus has not been prepared.

Additionally, the SCAQMD recommends analyzing direct and indirect project GHG emissions generated within California and not life-cycle emissions because the life-cycle effects from a project could occur outside of California, might not be very well understood or documented, and would be challenging to mitigate (43). Additionally, the science to calculate life cycle emissions is not yet established or well defined, therefore SCAQMD has not recommended, and is not requiring, life-cycle emissions analysis.

3.5 CONSTRUCTION EMISSIONS

Construction activities associated with the proposed Project will result in emissions of CO2 and CH4 from construction activities.

The report First Nandina Logistics Center Air Quality Impact Analysis Report, Urban Crossroads, Inc. (2013) contains detailed information regarding construction activity (44).

For construction phase Project emissions, GHGs are quantified and amortized over the life of the Project. To amortize the emissions over the life of the Project, the SCAQMD recommends calculating the total greenhouse gas emissions for the construction activities, dividing it by the a 30 year project life then adding that number to the annual operational phase GHG emissions (45). As such, construction emissions were amortized over a 30 year period and added to the annual operational phase GHG emissions.

3.6 OPERATIONAL EMISSIONS

Operational activities associated with the proposed Project will result in emissions of CO2, CH4, and N2O from the following primary sources:

- Building Energy Use
- Water Supply, Treatment and Distribution
- Solid Waste
- On-Site Equipment
- Vehicles

3.6.1 BUILDING ENERGY USE

GHGs are emitted from buildings as a result of activities for which electricity and natural gas are typically used as energy sources. Combustion of any type of fuel emits CO_2 and other GHGs directly into the atmosphere; these emissions are considered direct emissions associated with a building, the building energy use emissions do not include street lighting[5]. GHGs are also emitted during the generation of electricity from fossil fuels; these emissions are considered to be indirect emissions. Unless otherwise noted, CalEEMod default parameters were used.

3.6.2 WATER SUPPLY, TREATMENT AND DISTRIBUTION

Indirect GHG emissions result from the production of electricity used to convey, treat and distribute water and wastewater. The amount of electricity required to convey, treat and distribute water depends on the volume of water as well as the sources of the water. The Water Supply Assessment Report for the First Nandina Logistics Center (Eastern Municipal Water District, 2014) was used to determine the Project's water demand (46).

3.6.3 SOLID WASTE

Industrial land uses will result in the generation and disposal of solid waste. A large percentage of this waste will be diverted from landfills by a variety of means, such as reducing the amount of waste generated, recycling, and/or composting. The remainder of the waste not diverted will be disposed of at a landfill. GHG emissions from landfills are associated with the anaerobic breakdown of material. GHG emissions associated with the disposal of solid waste associated with the proposed Project were calculated by the CalEEMod™ model using default parameters.

3.6.4 ON-SITE EQUIPMENT

It is common for an industrial warehouse project to require cargo handling equipment to move empty containers and empty chassis to and from the various pieces of cargo handling equipment that receive and distribute containers. The most common type of cargo handling equipment is the yard truck which is designed for moving cargo containers. Yard trucks are also known as yard goats, utility tractors (UTRs), hustlers, yard hostlers, and yard tractors. Yard trucks have a horsepower (hp) range of approximately 175 hp to 200 hp. Based on the latest available information from SCAQMD (47), high-cube warehouse projects typically have 3.1 yard tractors per million square feet of building space. For this particular Project, on-site modeled operational equipment includes five 200 hp yard tractors operating at 8 hours a day for 260 days of the year. The most common fuel for yard trucks besides diesel is propane. In an abundance of caution to render a more conservative approach, we have assumed on-site yard trucks are powered by diesel. The emissions associated with on-site equipment were calculated using the CalEEMod model.

[5] The CalEEMod emissions inventory model does not include indirect emission related to street lighting. Indirect emissions related to street lighting are expected to be negligible and cannot be accurately quantified at this time as the is insufficient information as to the number and type of street lighting that would occur.

3.6.5 VEHICLES

GHG emissions will also result from mobile sources associated with the Project. These mobile source emissions will result from the typical daily operation of motor vehicles by visitors, employees, and customers.

Project mobile source emissions are dependent on both overall daily vehicle trip generation. Trip characteristics available from the report, First Nandina Logistics Center Traffic Impact Analysis (Urban Crossroads, Inc., 2013) were utilized in this analysis (48).

It should be noted that many do not consider traffic associated with new commercial or retail and existing residences to be "new" trips. This traffic already exists from the existing residences, and the construction of new commercial or retail uses does not increase traffic; rather, it displaces the trips from another area. Similarly, one component of SB 375 recognizes that the current traffic models inaccurately assume that every trip associated with a development project is new. SB 375 requires the California Transportation Commission to develop guidelines for traffic models so that they more accurately account for emissions (Gov't. Code § 14522.1). With the goal of better recognizing trip "transfers," as opposed to trip "creation," the new traffic model must, for example, address relationships between a project and complementary land uses. Accordingly, while the current traffic models assume that all trips associated with the project are new, in fact, many of these trips will merely be transferred from other areas.

Project operational (vehicular) impacts are dependent on both overall daily vehicle trip generation and the effect of the Project on peak hour traffic volumes and traffic operations. Project-related operational air quality impacts derive predominantly from mobile sources [approximately 94.23 percent (by weight) of all Project operational-source emissions are generated by mobile sources (vehicles). It should be noted that the Project's traffic study presents the total Project vehicle trips in terms of Passenger Car Equivalents (PCEs) in an effort to recognize and acknowledge the effects of heavy vehicles at the study area intersections. Notwithstanding, for purposes of the air quality study, the PCE trips were not used. Rather, to more accurately estimate and model vehicular-source emissions, the actual number of vehicles, by vehicle classification (e.g., passenger cars (including light trucks), heavy trucks) were used in the analysis. The vehicle fleet mix, in terms of actual vehicles, as derived from the traffic study for the Project is comprised of approximately 76% passenger cars and approximately 24% total trucks. For analysis purposes 12.5% of all trucks are assumed to be Light-Heavy-Duty (LHD), 12.5% of all trucks are assumed to be Medium-Heavy-Duty (MHD), and 75% of all trucks are assumed to be Heavy-Heavy-Duty (HHD). The Project was input as a single category or type of land-use (Unrefrigerated Warehouse-No Rail) in the CalEEMod™ emissions inventory model. The resulting estimated vehicle-source emissions are summarized at Table 3-5.

The SCAQMD has recently commented on numerous warehouse projects calling for the use of an inflated trip generation rate based on the 95th percentile of all high-cube warehouses, which the SCAQMD asserts is most appropriate according to a meta-analysis prepared by the SCAQMD as part of the CalEEMod™ emissions inventory model release, use of this inflated rate would mean that the Project would have a trip rate equivalent to the busiest 5% of all

warehouses in the study conducted by the SCAQMD, and thus, would significantly overestimate total trips. The Project-generated daily passenger car and truck trips utilized in this analysis were obtained from the Project's traffic impact analysis report and are derived from trip generation rates specified in the Institute of Transportation Engineers (ITE) Trip Generation Manual, 9th Edition, 2012. Use of the ITE rates are standard industry practice for the calculation of projected traffic volumes in traffic studies supporting CEQA documents throughout the State of California.

Furthermore, it is important to note that six of the seven trip generation studies included in the SCAQMD meta-analysis were also included as part of the dataset for estimating the daily and peak hour trip generation rates for ITE Land Use: 152 (high-cube warehouse) in ITE's 8th Edition of the *Trip Generation* manual. In addition, ITE also includes data from three additional studies performed in Livermore, California, Manalapan, New Jersey and Tampa, Florida for the purposes of estimating peak hour trip rates, which further expands the number of buildings included in the sample.

The SCAQMD Study acknowledges that a lack historical photographic coverage and/or business history make it difficult to discern the degree of correlation between the variation in site specific observations and the conclusion that the ITE rates may be understated. In addition, the use of a 95th percentile trip generation rate is not standard traffic engineering practice nor required by CEQA, as this approach will tend to significantly overstate site specific vehicle trips estimates and associated emissions. Therefore, it was determined that the trip generation rates for high cube warehouse use (Land Use 152) as published in the 9th Edition of ITE's *Trip Generation* manual, and currently widely accepted throughout Riverside and San Bernardino Counties, are the most appropriate trip rates to be utilized to calculate vehicle trips for the Project.

Similarly, the City of Perris has provided a comprehensive response to the SCAQMD for a similar comment that was provided on the Stratford Ranch Environmental Impact Report (State Clearinghouse No. 2012011037), July 27, 2013. Appendix L-3 to the Stratford Ranch DEIR, includes a December 2011 study by Crain & Associates that identifies numerous technical flaws in the SCAQMD Study, essentially discrediting it as a viable reference for trip generation rates of high-cube warehouses. A copy of the Crain & Associates study is appended to this technical study for purposes of the administrative record (see Appendix 3.3).

3.6.5.1 Trip Length

Background

A technical deficiency inherent in calculating the projected vehicle emissions associated with any project is related to the estimation of trip length and vehicle miles traveled (VMT). VMT for a given project is calculated by the total number of vehicle trips to/from the Project x average trip length. This method of estimating VMT for use in calculating vehicle emissions likely results in the over-estimation and double-counting of emissions because, for a distribution warehouse center such as the Project, the land use is likely to attract (divert) existing vehicle trips that are already on the circulation system as opposed to generating new trips. In this regard, the Project

would, to a large extent, redistribute existing mobile-source emissions rather than generate additional emissions within the Basin. As such, the estimation of the First Nandina Logistic Center's Project's vehicular-source emissions is likely overstated in that no credit for, or reduction in, emissions is assumed based on diversion of existing trips.

Provided below is a summary of the VMT recommendations of the SCAQMD and SCAG, followed by a description of the methodology used to calculate the VMT rates used in this GHGA.

SCAQMD Recommendation

In the last five years, the SCAQMD has provided numerous comments on the trip length for warehouse/distribution and industrial land use projects (49). The SCAQMD asserts that the model-default trip length in CalEEMod™ and the URBan EMISsions (URBEMIS) 2007 model (version 9.2.4) would underestimate emissions. The SCAQMD asserts that for warehouse, distribution center, and industrial land use projects, most of the heavy-duty trucks would be hauling consumer goods, often from the Ports of Long Beach and Los Angeles (POLA and POLB) and/or to destinations outside of California. The SCAQMD states that for this reason, the CalEEMod™ and the URBan EMISsions model default trip length (approximately 12.6 miles) would not be representative of activities at like facilities. The SCAQMD generally recommends the use of a 40-mile one-way trip length.

Southern California Association of Government (SCAG) Heavy Duty Truck Model

SCAG is comprised of six counties (Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura) and 190 cities in Southern California, and is the organization charged with addressing and resolving short- and long-term regional policy issues. The SCAG region also consists of 14 subregional entities recognized by the Regional Council as partners in the regional policy planning process. The SCAG region has more than 19 million residents and encompasses more than 38,000 square miles, representing the largest and most diverse region in the country.

SCAG maintains a regional transportation model. In its most recent (2008) transportation validation for the 2003 Regional Model, SCAG indicates the average internal truck trip length for the SCAG region is 5.92 miles for Light Duty Trucks, 13.06 miles for Medium Duty Trucks, and 24.11 miles for Heavy Duty Trucks.

Approach for Analysis of the Project

Trip lengths and VMT estimates employed in this GHGA report generate vehicular-source emissions that would represent a maximum impact scenario Other Environmental Impact Reports (EIRs) for similar land use projects within the City of Moreno Valley have utilized these same or similar estimates (50)(51) (52). To maintain analytic consistency and establish the maximum impact scenario noted above, the following approach has been utilized in calculating emissions associated with vehicles accessing the Project.

For passenger car trips, the Riverside County CalEEMod default for a one-way trip length of 9.5 miles was assumed as contained in the CalEEMod User's Guide version 2013.2.2. For heavy duty

trucks, an average trip length was derived from distances from the Project site to the far edges of the South Coast Air Basin (SCAB) as follows. It is appropriate to stop the VMT calculation at the boundary of the SCAB because any activity beyond that boundary would be speculative, this approach is also consistent with professional industry practice.

- Project site to the Port of Los Angeles/Long Beach: 80 miles;
- Project site to East on State Route 60: 30 miles;
- Project site to San Diego County line: 50 miles;
- Project site to Inland Empire: 50 miles;
- Project site to Perris destinations: 30 miles;
- Project site to Moreno Valley destinations: 10 miles;

Assuming that 50% of all delivery trips will travel to and from the Project and the Port of Los Angeles/Long Beach, 10% go East on the State Route 60, 20% go to San Diego, 10% go to the Inland Empire, 5% go to Perris destinations, and the remaining 5% go to Moreno Valley destinations. The average truck trip length is calculated to be approximately 61 miles.

Two separate model runs were utilized in order to more accurately model emissions resulting from vehicle operations. The first run analyzed passenger car emissions, which incorporated a default trip length of 9.5 miles for passenger cars within Riverside County and a fleet mix of 100% Light-Duty-Auto vehicles (LDA). The second run analyzed truck emissions, which incorporated an average truck trip length of 61 miles and a fleet mix of 12.5% LHD, 12.5% MHD, and 75% HHD. The estimated emissions resulting from vehicle operations are summarized in Table 3-5 (presented later in this report.) Detailed emission calculations are provided in Appendix "A".

3.7 EMISSIONS SUMMARY

The total amount of Project-related GHG emissions for BAU without accounting for any project design features or regulatory developments that would reduce GHG emissions from direct and indirect sources combined would total 24,064.37 MTCO2e as shown on Table 3-2.

The total amount of Project-related GHG emissions when accounting for applicable regulatory developments, project design features, and mitigation measures that would reduce GHG emissions from direct and indirect sources combined would total 18,769.33 MTCO2e as shown on Table 3-3. This results in a 22.00% reduction from BAU, thus with implementation of the Project's design features and regulatory developments, the Project's GHG reduction would not meet the AB 32 reduction target of 28.5% (2).

Table 3-2 also provides a comparison of the Project's emissions as a function of Service Population and compares emissions to the 4.8 metric ton CO2e per service population-based threshold that has also been considered by the SCAQMD. As shown on Table 3-2, the Project would result in an approximate 22.03 MTCO2e per service population and would exceed the 4.8 MTCO2e per service population threshold that the SCAQMD has considered.

TABLE 3-1: "BUSINESS AS USUAL" GREENHOUSE GAS EMISSIONS

Emission Source	Emissions (metric tons per year)			
	CO_2	CH_4	N_2O	Total CO_2E
Annual construction-related emissions amortized over 30 years	61.48	0.008	--	61.65
Area	0.05	2.20e-4	--	0.05
Energy	1,556.34	0.07	0.02	1,562.85
Mobile Sources (Trucks)	18,898.42	0.75	--	18,914.21
Mobile Sources (Passenger Cars)	2,367.14	0.21	--	2,371.48
On-Site Equipment	461.00	0.05	--	462.01
Waste	276.68	16.35	--	620.05
Water Usage	63.99	0.28	7.12e-3	72.07
Total CO_2E (All Sources)	**24,064.37**			

TABLE 3-2: 2020 GREENHOUSE GAS EMISSIONS WITH APPLICABLE REGULATORY DEVELOPMENTS, DESIGN FEATURES AND MITIGATION MEASURES

Emission Source	Emissions (metric tons per year)			
	CO_2	CH_4	N_2O	Total CO_2E
Annual construction-related emissions amortized over 30 years	61.48	0.008	--	61.65
Area	0.05	1.20e-4	--	0.05
Energy	1,049.17	0.06	0.01	1,054.82
Mobile Sources (Trucks)	15,271.09	0.10	--	15,273.14
Mobile Sources (Passenger Cars)	1,326.39	0.05	--	1,327.39
On-Site Equipment	381.67	0.12	--	384.26
Waste	276.68	16.35	--	620.05
Water Usage	41.50	0.22	5.72e-3	47.97
Total CO_2E (All Sources)	**18,769.33**			
SCAQMD Service Population (SP) Threshold	**4.8 MTCO2e/SP**			
Service Population	**852 employees**			
Metric Tons CO2e per Service Population	**22.03**			

Source: CalEEMod™ model output, See Appendix 3.1 for detailed model outputs.
Note: Totals obtained from CalEEMod™ and may not total 100% due to rounding.
Table results include scientific notation. *e* is used to represent *times ten raised to the power of* (which would be written as x 10^{b}") and is followed by the value of the exponent.

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5 CERTIFICATION

The contents of this greenhouse gas study report represent an accurate depiction of the greenhouse gas impacts associated with the proposed First Nandina Logistics Center Project. The information contained in this greenhouse gas report is based on the best available data at the time of preparation. If you have any questions, please contact me directly at (949) 660-1994 ext. 217.

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AEP – Association of Environmental Planners
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Planned Communities and Urban Infill – Urban Land Institute • June, 2011
Indoor Air Quality and Industrial Hygiene – EMSL Analytical • April, 2008
Principles of Ambient Air Monitoring – California Air Resources Board • August, 2007
AB2588 Regulatory Standards – Trinity Consultants • November, 2006
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APPENDIX 3.1:

CALEEMOD EMISSIONS MODEL OUTPUTS

APPENDIX 3.2:

PROJECT CONSISTENCY WITH CITY OF MORENO VALLEY CLIMATE ACTION STRATEGY

APPENDIX 3.3:

CRANE & ASSOCIATES STUDY

Response to Comment Letter 28

Response 28-1: The City acknowledges this letter is sent on behalf of Azusa Land Reclamations, Inc., and USW Waste of California, Inc., from its client Remy Moose Manley LLP. The City does not agree with the commenter's opinion regarding the adequacy of the EIR. It should be noted that Waste Management, Inc. is the parent corporation of each of these entities and operates ad Material Recovery Facility/Transfer Station in Azusa, California which would be a direct economic competitor of the proposed MRF/TS project. The City respectfully disagrees with the commenter's statement that the "Revised DEIR's analysis and conclusion particularly with respect to air quality and traffic, remain unsupported by substantial evidence and therefore inadequate under CEQA." As more fully set forth in the City's responses to the comments, the analysis in the Revised DEIR is fully supported with substantial evidence.

Response 28-2: The commenter contends that the project's proposed zoning code amendment that will permit the MRF/TS in the Heavy Manufacturing [M-2] requires the project EIR to consider, at least programmatically, the potentially significant adverse effects that could result throughout the City in the M-2 Zone from, for example, cumulative traffic and air quality impacts from additional MRF/TS uses. The commenter then cites to the cases of *City of Carmel-By-The-Sea v. Board of Supervisors* (1986) 183 Cal.App.3d 229 *Christward Ministry v. Superior Court* (1986) 184 Cal.App.3d 180, 185-195 and *San Diego Citizenry Group v. County of San Diego* (2013) 219 Cal.App.4th 1 to support its position. Each of these cases are distinguishable from this project. In *City of Carmel*, the Board of Supervisor's approved the rezoning of property on which a hotel was located and operating and adopted a negative declaration. The County contended that the purpose of the rezone was to merely bring the current use of the property in conformance with the County's Carmel Area Land Use Plan. The *Carmel* court stated this claim was inconsistent with the evidence in the record which revealed that the hotel had already submitted plans to expand the hotel before the Board of Supervisors had even approved the rezone and that this fact was referenced in the resolution adopting the zoning ordinance. The court then concluded that the record established the rezoning was a necessary first step to approval of a specific development project. (*City of Carmel, supra*, p. 244). Therefore, the court concluded that an environmental impact report that assessed the environmental impacts associated with the proposed development project needed to be prepared. In *Christward Ministry* the court determined that an environmental impact report was required for a proposed general plan amendment that would authorize potential new uses for a solid waste management facility as there was evidence in the record that the intent was to specifically allow for the construction of a trash-to-energy plant. (*Christward,supra*, at p.195.) Finally, in *San Diego Citizenry Group*, supra, the County of San Diego certified an EIR for the adoption of a text amendment to its zoning ordinance the objective of which was to allow the establishment of boutique wineries by right. The state objective of this text amendment was to promote the growth of grapes and the wine industry. In that context, it was understandable why the EIR attempted to analyze the potential environmental effects of the establishment of additional

boutique wineries as that was the objective of the text amendment and it was possible that such boutique wineries would not require a discretionary permit in order to be established.

The court in *Save Round Valley Alliance v. County of Inyo* stated the appropriate standard for determining whether subsequent projects must be analyzed as part of the initial project is whether the potential subsequent projects are a reasonably foreseeable consequence of the initial project based upon evidence in the record. The court stated absent such evidence, the alleged subsequent projects amount to speculation and lead agencies are not required to engage in sheer speculation as to future environmental consequences of the project. (Ibid, at p. 1451). In this case, the evidence establishes that the text amendment to the zoning ordinance to allow for MRF/TS facilities in the Heavy Industrial (M-2) with the approval of a development agreement was to allow for this project to be located at the proposed location. There is no evidence in the record of any other proposed MRF/TS projects in Irwindale, much less ones proposed for other locations zoned Heavy Industrial (M-2). As such, neither the DEIR nor the Recirculated DEIR were required to analyze the potential environmental effects of purely hypothetical MRF/TS facilities that could theoretically be constructed on other M-2 zoned property within Irwindale as such analysis would amount to speculation.

Response 28-3: The commenter questions the use of trip counts obtained in 2011 combined with a growth factor formulated by the traffic engineer at Urban Crossroads in order to provide a reasonably conservative estimate of 2013 existing conditions at the time the Notice of Preparation of the Draft EIR was released. The commenter then states, "The EIR is required to use actual existing conditions at the time of the NOP as the baseline" citing to CEQA Guidelines, section 15125. CEQA Guidelines, section 15125, which actually states, "An EIR must include a description of the physical environmental conditions in the vicinity of the project, as they exist at the time of the notice of preparation is published." This guideline does not set forth the exact methodology by which the lead agency determines the physical environmental conditions in the vicinity of the project. In fact, this determination is left to the discretion of the lead agency so long as it is supported with substantial evidence. (*Neighbors for Smart Rail. v. Exposition Metro Line Construction Authority* (2013) 57 Cal.4th 439, 457.)

As set forth at p. 3.12-20 through 3.12-23 of the Recirculated DEIR, to determine the existing conditions in 2013, the traffic engineering consultant obtained trip counts for key locations in 2013 and compared them to the traffic counts obtained in 2011 for these same key locations. This comparison revealed a decrease in PM peak hour traffic in 2013 by approximately 4 percent. The traffic engineer concluded that relying upon the 2013 traffic counts for PM peak hour traffic volumes risked providing a misleading baseline which could potentially understate the project's impacts on Level of Service. Accordingly, in consultation with City staff as part of the traffic study scoping package which is included in the Athens-Irwindale MRF and Transfer Station Traffic Impact Analysis (TIA) study dated February 27, 2014, Appendix A, page A-3, it was determined that a more conservative approach would be to apply a growth factor to the 2011 traffic

counts derived from empirical data and would actually reflect an increase in PM traffic counts in 2013, not a decrease. As such, the City has provided substantial evidence to support the methodology it utilized to determine the existing traffic conditions in 2013 at the time it published the Notice of Preparation for the Draft EIR. City staff believes that this methodology provides the public and decision makers the most accurate information on project impacts practically possible.

Finally, note that peak hour count data has been updated to 2016 conditions in the updated Traffic Impact Assessment prepared as a part of this FEIR, and accounting for the Irwindale Regional Shopping Center and the Olive Pit Mining and Reclamation Project. The TIA update was conducted to confirm that the conclusions regarding MRF/TS project impacts and mitigation measures were applicable and sufficient under the revised traffic count and cumulative project scenarios, and accounting for the traffic mitigation measures that were imposed upon the Regional Shopping Center Project.

Response 28-4: The commenter contends that the lead agency ignored the commenter's comments on the DEIR. In response, as set forth in the responses to Letter No. 13 which is commenter's comments on the DEIR, the City has not ignored those comments. The commenter also contends that the City ignored its own Policy Guidelines for Traffic Impact Reports in the preparation of the traffic impact study for this project. The City ensured that the traffic impact study prepared for the DEIR and Recirculated DEIR complied with the requirements of its Guidelines. As set forth in the TIS at p. 51 as part of the process of updating the June 2011 peak hour traffic counts contained in the 2012 Gibson traffic impact study, new traffic counts were obtained at key locations in January and May, 2013 during weekdays when school was in session. The TIS then explains how this new data was utilized as follows:

> In addition, link volume F comparison between 2011 and 2013 count indicates a 1.018 growth factor (equivalent to 1.8%) during the AM peak hour growth. However, the PM peak hour comparison presents a decrease in traffic (approximately -4.0%) between 2011 and 2013 counts. Therefore, a final adjustment of 1.018 growth is applied to the 2011 AM peak hour volumes only and 2011 PM peak hour counts were utilized as to reflect 2013 conditions. 2011 and 2013 Link volume growth comparison results are included in Appendix "C."
>
> The final Existing (2013) AM and PM Peak hour volumes are sown on Exhibit 3-E and Exhibit 3-F respectively.

Based upon the data gathered from the 2013 traffic counts, this approach to the analysis is considered conservative and reasonable for traffic impact analysis purposes and consistent with the City's Guidelines. In addition, Caltrans reviewed both the DEIR and Recirculated DEIR as well as the TIA. Caltrans' comment letter did not express any concerns regarding the approach used to determine existing traffic conditions in 2013; (see comment letters No. 2 and No. 18).

The Commenter also questions the City's use of the 2000 edition of the Highway Capacity Manual ("HCM2000") versus the 2010 edition ("HCM2010"). In response, the City's traffic consultant discussed use of the HCM2000 and other parameters used in the traffic study with Caltrans and the City of Irwindale technical staff members during the course of the traffic study preparation. Caltrans concurred with use of the HCM2000 for this particular traffic study as at the time of the preparation of this traffic study HCM2010 had not been fully implemented. Caltrans concurrence with this approach is reflected in the fact that it does not raise use of HCM2000 as a concern in its letters commenting on the DEIR and Recirculated DEIR.

Response 28-5: The commenter inquires regarding the funding and timing of implementation of Mitigation Measures T-1 and T-2, and asks whether the applicant will pay for the entire cost of these improvements or a fair share. Based on the City's Capital Improvement Program (CIP), the design of MM T-1, Northbound I-605 off-ramp to Live Oak Avenue, is in its final design phase, and pending approval by Caltrans. This improvement project is programmed in the City's CIP to begin construction in calendar year 2016.

Since Caltrans has exclusive jurisdiction over state highway improvements it is ultimately in control of the funding and timing of the proposed improvements. In Caltrans DEIR comment letters, dated 5/22/14 and 9/22/14, Caltrans acknowledges the project's off-site mitigation measures (MM T-1 and MM T-2 presented in the DEIR), and indicates that Caltrans will cooperate with the City of Irwindale and sponsors of the project to process an encroachment permit. However, since the City does not control the timing of the construction of the T-1 and T-2 improvements, the City cannot state with certainty that they will be completed prior to commencement of operations at the MRF/TS. For this reason, the Recirculated DEIR concludes that the impacts identified under impact threshold T-2 will be significant and unavoidable. With that said, it is the City's intent to work cooperatively with Caltrans and the applicant to ensure that these improvements are constructed and operational in close proximity to the date the MRF/TS becomes operational. As stated in the Recirculated DEIR at p. 3.12-67, the applicant shall be required to pay its fair share contribution toward the required 2035 improvements, as calculated utilizing the formula found on page 16 of the City's *Policy Guidelines for Traffic Impact Reports.*

The MM T-2, Southbound I-605 off-ramp to Arrow Highway, will be included in the City's future Capital Improvement Program to be constructed before the proposed Material Recovery Facility and Transfer Station reaches its maximum capacity.

As stated in the Recirculated DEIR at pp. 3.12-99 -3.12-100, Mitigation Measures T-3 through T-6 are to be constructed prior to commencement of operations at the MRF/TS.

Response 28-6: The commenter questions the adequacy of the analysis in the Recirculated DEIR related to the potential impacts associated with implementation of mitigation measures MM T-1 and MM T-2. In response, the City notes CEQA Guidelines, §15126.4, subd. (a) (1) (D) states "If a mitigation measure would cause one or more significant effects in addition to those that would

be caused by the project as proposed, the effects of the mitigation measure shall be discussed but in less detail than the significant effects of the project as proposed." Quantifying criteria pollutant and GHG emissions from the temporary construction of circulation improvements (mitigation measures) at an intersection is not required by CEQA and a less detailed discussion of air quality and GHG emissions impacts is appropriate. Based upon this standard the City provides the following additional discussion of such impacts to supplement the discussion found in the Recirculated Draft EIR at p. 3.12-69:

> Off-site circulation improvements (MM T-1 and T-2) at the I-605 (NS) / Live Oak Avenue (EW) intersection would involve temporary roadway construction. The intersection includes two I-605 northbound off-ramps, two Live Oak Avenue eastbound lanes and two Live Oak Avenue westbound lanes. The off-site circulation improvements would take place near a landfill, an open pit mine and the Irwindale Speedway. The nearest sensitive receptors are approximately 2,900 feet to the south and southwest.
>
> Air quality and GHG emissions impacts related to construction equipment and construction-related traffic from the temporary construction of the off-site circulation improvements would be short-term and would require minimal pieces of construction equipment and construction trips. Because there are no sensitive receptors within 2,900 feet, the air quality emissions from construction would not have local effects, as the concentration of any emissions would essentially be diluted back to the regional background concentrations by the time the emissions would be dispersed to the nearest sensitive receptors. With regard to regional emissions, the level of construction involved with constructing three lanes and a traffic signal would not be viewed as a major air pollution source, it would be short-term, it would result in long-term improvements to traffic flow (and lower air emissions), and would be consistent with on-going construction improvements of roadways throughout the region.
>
> Noise impacts from temporary construction of the off-site circulation improvements would be less than significant because there are no sensitive receptors (approximately 2,900 feet away) that would receive the noise from construction and the ambient noise level in the vicinity of the intersection would not be substantially increased due to the existing traffic noise on Live Oak Avenue and I-605. In terms of quantifying the construction noise levels, the construction equipment would generate noise levels of 89 dBA at 50 feet and would be reduced to approximately 54 dBA at 2,900 feet. At this location (the nearest sensitive receptor) and noise level, the construction noise would be masked by existing noise from vehicles on Live Oak Avenue and I-605.

Response 28-7: The commenter requests an explanation of how the average trip distance of 9.1 miles for the project variant was determined. In response, please note the project variant option is no longer under consideration as the Valley County Water District (VCWD) retracted its intent to purchase 1.9 acres of the project site; and therefore this comment requires no further response. Refer to Recirculated DEIR Comment Letter 20 [dated September 29, 2014] regarding the VCWD's withdrawal to acquire the aforementioned parcel.

That being said, as documented in the Recirculated DEIR (page 3.3-42), the trip distance for the Project Variant off-site trucks was estimated at 9.1 miles (same as the trip distance for the collection/roll-off trucks and verified as a reasonable estimate by the Applicant; although the specific location of the off-site parking was not determined).

The waste is estimated to be 46 percent landfill material, 35 percent recycling material, and 19 percent composting material for the Proposed Project. The average travel distances for the Proposed Project are estimated to be 9.1, 8.4, and 16.6 miles for the collection/roll-off trucks, self-haul trucks, and employees, respectively. For the Project Variant, a travel distance of 9.1 miles was used for the travel distance of the 23 vehicles to be parked off site.

Response 28-8: The commenter asks whether the project variant option pose conflicting turning movement that would require mitigation. In response, as stated in the response to Comment No. 28-7, the project variant option is no longer under consideration. As such, no further response is required.

Response 28-9: The commenter states that CleanTech Environment proposed used oil recycling and designated hazardous waste collection facility should have been included as one of the projects considered in the EIR's cumulative impact analysis. In response, the City notes that CEQA Guidelines, section 15130(b)(1)(A) states that the cumulative impact analysis need only include projects producing related or cumulative impacts. The City's traffic engineer evaluated the location of the CleanTech facility and determined that based on the location of the proposed CleanTech facility and its proximity to the I-210/Irwindale Avenue interchange, significant amount of trips from this cumulative project are not anticipated to be distributed within the study area. As such, not including this project does not affect the EIR's cumulative impact analysis.

Response 28-10: The commenter contends that the Recirculated DEIR's analysis air quality, GHG and health risks is in adequate and that the mitigation measures proposed to address these impacts are also inadequate. In response, please see Responses to Comments 19-3 and 25-19 which address commenter's concerns.

Response 28-11: The commenter contends that the City should not have utilized the SCAQMD's 10,000 MT CO_{2e} as a threshold in determining the impacts associated with GHG emissions and contends that the City was required to use a threshold based upon the project's contributions toward meeting the goals set forth in AB32 and California Air Resources Board's ("CARB") Scoping Plan. In response, the City respectfully disagrees with the commenter. CEQA Guidelines

section 15064.4 provides guidance to lead agencies in evaluation the significance of impacts from greenhouse gas emissions. First, it states, "A lead agency should make a good-faith effort, based to the extent possible on scientific and factual date, to describe, calculate or estimate the amount of greenhouse gas emissions resulted for a project." The City has complied with this requirement. This section then provides a lead agency with the discretion to utilize a quantitative or qualitative approach to assess the greenhouse gas impacts, so long as the approach is supported with substantial evidence. The CEQA Guidelines do not proscribe any one methodology for evaluating the significance of GHG impacts. Finally, since the SCAQMD released its "interim" GHG significance threshold of 10,000 MT CO2e in 2008, limiting its application to projects with GHG emissions for stationary sources, it has broadened its application to projects that include both stationary and mobile source emissions. The appropriateness of utilizing this threshold for projects with both stationary and mobile source emissions has been confirmed in consultation with the SCAQMD.

In addition, please see the City's response to Comment No. 38-1 which discusses the recent California Supreme Court opinion in *Center for Biological Diversity v. California Department of Fish and Wildlife* confirming that use of an established numerical threshold for purposes of GHG impact analysis is appropriate.

In addition, MM AQ-22 (Recirculated DEIR page 3.3-68) provides for mitigation of GHG emissions to a less than significant level:

Consistent with guidance received from the SCAQMD and the CEQA Guidelines, for the Proposed Project, the City is adopting the SCAQMD, 10,000 MT CO_2e per year industrial project screening threshold as the significance threshold in addition to the qualitative thresholds of significance from *Section VII of Appendix G to the CEQA Guidelines*. The SCAQMD screening threshold recommends that total construction emissions be amortized over a 30-year period or the project's expected lifetime if it is less than 30 years. The following summarizes the Recirculated DEIR's GHG analysis. Four types of analyses were used to determine whether the Proposed Project would be in conflict with the goals for reducing GHG emissions. The analyses are reviews of:

a. The potential conflicts with the CARB' thirty-nine (39) recommended actions identified in **Table 3.3-16 List of Recommended Actions by Sector**;

b. The proposed project emissions compared to the SCAQMD significance threshold of 10,000 MT CO_2e per year; and

c. The basic parameters of a project to determine whether its design is inherently energy efficient, will lead to wasteful energy use, or is neutral with regard to future energy use.

d. Potential conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

The Proposed Project construction plus operational GHG emissions would be approximately 58,834 metric tons of CO_2e per year. The Proposed Project would be classified as potentially significant (greater than 10,000 metric tons of CO_2e per year SCAQMD significance threshold). The construction emissions would be approximately 940 metric tons CO_2e (or 31 metric tons CO_2e amortized over 30 years).

MM AQ-22:

The Project Applicant shall purchase verifiable and certified GHG offset credits and provide verification to the City of the purchase annually. Off-set credits shall be purchased in an amount that is based on one of the following:

(1) Offset-credits for 48,803 metric tons or,

(2) Offset-credits in an amount computed on the basis of the Project's actual GHG emissions the previous year ~~compared to actual Project-related emissions~~ compared to emissions from the 2013 baseline condition minus 10,000 metric tons of CO_2e per year. The calculation must be prepared and certified by a professional Air Pollution expert, acceptable to the City as determined by the Director of Community Development.

When feasible, offset purchases would be prioritized by proximity to the Project Site, with greatest preference given to projects within the jurisdictional boundaries of the SCAQMD, then the State of California, and then nationally. Carbon offsets are widely available in a number of markets (e.g., GreenX and IntercontinentalExchange) and exists at levels that greatly exceed the potential needs of the Proposed Project.

The project is efficient with regard to energy use since project operations would reduce overall energy consumption by reducing the transfer truck trip mileage within the region and reducing the amount of solid waste material that is ultimately disposed of at a landfill. Additionally, the Project will be required to be LEED certifiable and built to the Green Building Code standards; whereas, the Proposed Project shall be conditioned by the City to be certifiable at the Silver level utilizing U.S. Green Building Council's LEED green building rating systems. Therefore, the buildings and facilities are expected to be energy efficient.

Response 28-12: The commenter cites to analysis contained in an EIR in which the City of Moreno Valley was the lead agency that discusses the reasons the 10,000 MT CO2e threshold was not utilized to evaluate GHG emissions. However, the rationale set forth in that EIR is based upon the incorrect determination that the SCAQMD continues to apply the 10,000 MT CO2e threshold only to projects with GHG emissions solely from stationary sources. This is not the case. See Response to Comment 28-11. The City of Irwindale is the lead agency for this project, not the City of Moreno Valley. The Proposed project would be required to mitigate for all emissions above the 10,000 MT CO_2e level, while projects that use the BAU approach only have to achieve a 29 percent reduction for all project emissions, including emissions above 10,000 MT CO_2e. With a total estimate of almost 50,000 MT of CO_2e annually, this project (the Irwindale MRF) would clearly require more mitigation at full operational levels.

Response 28-13: The commenter contends that the Recirculated DEIR's analysis of whether the project conflicts with any of CARB's recommended actions. (See Recirculated DEIR, p. 3.3-69) is inadequate. In response, please see response to Comment No. 28-11. Furthermore, the Recirculated DEIR confirms that the project was evaluated to determine whether it conflicted with any of CARB recommended actions and it was determined the project does not appear to conflict with any of CARB's recommended actions. The Recirculated DEIR's conclusion is therefore supported with substantial evidence in the record. Commenter has not submitted any evidence to the contrary.

Response 28-14: Commenter again challenges the City's use of the 10,000 metric tons of CO_{2e} as its GHG threshold. In response, please see response to Comment 28-11 which addresses this same concern.

Response 28-15: Commenter again contends the City was required to use as its GHG threshold, whether the project conflicts with any of the goals set forth in AB32. In response, the City again refers to commenter to is response to Comment 28-11 which addresses this comment. The commenter then cites to the case of *Sierra Club v. County of Fresno* (2014) 226 CalApp.4th 704, 751-752 as support for its contention that the Recirculated DEIR must "Prove up, and quantify, how the design features would reduce the GHG emissions." First, soon after the commenter submitted its letter, the Supreme Court granted review of the 5th District Court of Appeal opinion in *Sierra Club v. County of Fresno.* As such, it is not citable authority. Second, the law firm that requested the Supreme Court review the 5th District Court of Appeal's ruling in the *Sierra Club v. County of Fresno* case, is the commenter's law firm. In the commenter's Petition for Review submitted to the California Supreme Court, dated July 7, 2014, almost three months before its submitted its comment letter in this matter, it requested that the Supreme Court review the very holding for which it cites the *Sierra Club* case here. (See Petition for Review, p.35). Furthermore, according to the *Sierra Club* opinion, at p. 752 commenter actually argued, "Plaintiffs have cited no legal authority requiring an EIR to disclose the extent that mitigation would reduce impacts." However, in this case, the statement in the Recirculated DEIR that, "design features and regional efficiencies would reduce GHG emissions below what is stated in this analysis" is not relied upon as mitigation. This statement is made after the analysis concludes that implementation of Mitigation Measure AQ-22 will reduce the GHG impacts to less than significant. As such, no additional quantification of the reductions resulting from these design features or "regional efficiencies" is required. Based upon the arguments commenter's law firm made in its briefs associated with *Sierra Club v. County of Fresno*, commenter should agree.

Response 28-16: Commenter contends that mitigation measure AQ-22 is inadequate because it does not identify the adopted credit offset program from which the applicant must acquire the offsets, does not include an "annual due date or will enforce the measure. Finally, commenter again contends that an offsets should be geared toward meeting an AB32 compliance impact threshold. With regard to adequacy of the offset program, AQ-22 states that the program must provide certified GHG offset credits. CEQA does not require that the specific program be

identified. In addition, AQ-22 requires the applicant to provide verification of the purchase annually. With regard to the AB32 threshold comment, please see the response to Comment 28-11 that addresses this issue. Finally, the Mitigation Monitoring and Reporting Program that would be adopted for this project will provide the necessary detail and enforcement mechanisms. As the commenter's law firm stated in its Petition for Review to the Supreme Court in the *Sierra Club v. County of Fresno* case, the MMRP is the identified statutory mechanism for setting forth how a public agency ensures that a project proponent complies with adopted project changes or conditions of project approval during project implementation (Pub. Resources Code, section 21081.6, subd. (a)(1); *Lincoln Place Tenants Assn. v. City of Los Angeles* (2005) 130 Cal.App.4th 1491, 1509-1510. (See Petition for Review, p. 33.)

Rule 2701 (June 4, 2010): Establishes a voluntary program to encourage, quantify, and certify voluntary, high quality certified GHG emission reductions within the SCAQMD.

Rule 2702 (June 4, 2010): Creates a Greenhouse Gas Reduction Program for GHG emission reductions within the SCAQMD.

Response 28-17: Commenter again cites to *Sierra Club v. County of Fresno* (2014) 226 CalApp.4th 704, 750 for the standard of adequacy of specificity in a mitigation measure and then states that AQ-24 does not meet the standard, Again, as stated in the response to Comment 28-15, the *Sierra Club* case is not citable authority. Furthermore, please see response to Comment No. 28-16 which addresses the use of the Mitigation Monitoring and Reporting Program to set for operational details associated with implementation of a mitigation measure. The MMRP prepared for this project has addressed all of the operational concerns raised in this comment.

Response 28-18: Commenter cites again to *Sierra Club v. County of Fresno*, *supra*, 226 Cal.App.4th at 744-745 for its contention that the Revised DEIR is required to adequately discuss how air pollutants emitted by the Project (e.g. from PM and TACs) would impact public health. As stated previously, the Supreme Court granted review of the 5th District Court of Appeal opinion in *Sierra Club v. County of Fresno.* As such, it is not citable authority. Furthermore, in its Petition for Review to the Supreme Court at p. 20, the commenter's law firm stated requiring an EIR to include an analysis correlating the project's emissions to specific health impacts that will result, imposes new informational requirements for an EIR prepared pursuant to CEQA, which is directly contrary to the 1993 CEQA reform efforts by which the Legislature made clear the courts are prohibited from interpreting CEQA this way: "[i]t is the intent of the Legislature that courts, consistent with generally accepted rules of statutory interpretation , shall not interpret [CEQA or the CEQA Guidelines] in a manner that imposes procedural or substantive requirements beyond those explicitly stated in [CEQA or the CEQA Guidelines]." (Pub. Resources Code, section 21083.1). As such, it appears that commenter's comment in this regard is disingenuous. The City, therefore respectfully requests that the commenter formally withdraw this comment. In any event, the Recirculated DEIR in Table 3.3-2 identifies the health effects of concentrations of air pollutants that exceed the state and/or national standards. This complies with CEQA and is consistent with

commenter's interpretation of CEQA as set forth in it Petition for Review to the Supreme Court in the *Sierra Club v. County of Fresno* litigation.

In addition, the Revised DEIR provides a rather detailed analysis of regarding the ROG and NOX emissions. THRESHOLD AQ-2 acknowledges that the unmitigated ROG and NOx operational emissions are significant. The Project proposes MM AQ-12 through 18 to reduce the ROG and NOx emissions, however, these emissions remain significant and unavoidable.

A dispersion modeling analysis (THRESHOLD AQ-3 on page 3.3-47 of the RDEIR and THRESHOLD AQ-4 on page 3.3-52 of the RDEIR) of the local pollutant concentrations as a result of construction activities and haul truck and onsite equipment operations found that the project impacts would be less than the SCAQMD Significance Thresholds for all pollutants including NOx and $PM_{2.5}$ (with inclusion of MM AQ-1 through AQ-18). Notably, the SCAQMD Significance Thresholds for local pollutant concentrations are health-based and tied to the California Ambient Air Quality Standards.

A health risk assessment (THRESHOLD AQ-5 on page 3.3-55 of the RDEIR) found that impacts of air toxics such as diesel particulate matter from construction activities and haul truck and onsite equipment operations would be less than the SCAQMD Significance Thresholds (with inclusion of MM AQ-1 through AQ-18).

Thus, it would be expected that local project-related pollutant impacts would be less than significant and therefore, not adversely affect air quality and compliance with the Ambient Air Quality Standards.

NOx and ROG are ozone precursors and the health concern would be any increase in ozone, a regional pollutant. While all of the transportation-related emissions were considered new in the air quality analyses (for both local and regional emissions) a more likely scenario for the regional emissions is that the Irwindale MRF would be attracting market share from other MRFs in the region and any increase in overall regional emissions would be minimal (because discarded materials, in most cases, would otherwise go to another MRF in the region).

Response 28-19: Commenter contends that the Recirculated DEIR's discussion of cumulative air quality impacts remains insufficient and fails to apply any feasible mitigation measures to the significant and unavoidable cumulative impact associated with operational ozone precursors. In response, the City refers commenter to its response to 28-19 which summarizes the mitigation measures to address air quality impacts including the levels of ozone precursors. Mitigation Measures AQ-1 through AQ-18 do address operational ozone precursors. As such, the City has imposed feasible mitigation measures to address Ozone precursors.

With regard to the comment that the cumulative impact analysis is inadequate, the City responds as follows:

SCAQMD cumulative air quality threshold related to a project which would result in a cumulatively considerable net increase of any non-attainment pollutant (including releasing emissions that exceed quantitative thresholds for O_3 precursors). The Proposed Project would result in a significant ROG and NO_x impacts during operations. Therefore, the Proposed Project would result in a regional cumulative operations impact given that the Basin is in nonattainment for ozone and the Proposed Project would exceed the regional daily emissions threshold for ROG and NO_x, ozone precursors. The GHG emissions from this Proposed Project would be reduced to a less than significant impact by the mitigation measures. Since all GHG impacts are essentially cumulative impacts, this cumulative impact would be reduced to a less than significant impact.

Some of the potential cumulative impacts associated with the Proposed Project are more localized in nature and, thus, are analyzed at a project level (for example: cultural resources, geology and soils, noise). Other cumulative impacts are regional in nature and are, therefore, analyzed at a regional level rather than at a project level (for example, air quality, greenhouse gas emissions). As such, these impacts are evaluated on a regional basis to analyze potential cumulative impacts. Projects that may have a cumulative effect on the resources of this area are referred to as "related projects" in this cumulative impacts analysis. The "Cumulative Project List" was used as the basis of determining whether implementation of the Proposed project could result in incremental impacts that would be "cumulatively considerable" when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects (as defined by §15130).

As defined in the State CEQA Guidelines §15355, a cumulative impact consists of an impact that is created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts. The State CEQA Guidelines require the use of a list of past, present, and probable future projects and/or the use of adopted projections from a general plan, other regional planning document, or a certified EIR for such a planning provides the list of approved, proposed, and reasonably foreseeable projects used in the cumulative analysis.

Both the severity of impacts and the likelihood of their occurrence are to be reflected in the discussion, "but the discussion need not provide as great detail as is provided for the effects attributable to the project alone. The discussion of cumulative impacts shall be guided by standards of practicality and reasonableness, and shall focus on the cumulative impact to which the identified other projects contribute rather than the attributes of other projects which do not contribute to the cumulative impact." 14 Cal Code Regs §15130(b). Most of the cumulative projects are, or will be, required to undergo their own independent environmental review under either CEQA. Significant adverse impacts of the cumulative projects would be required to be reduced, avoided or minimized through the application and implementation of mitigation measures. The net effect of these mitigation measures is assumed to be a general lessening of the potential for a contribution to cumulative impacts. The key consideration is whether the remaining physical change or effect on the environment represents an adverse environmental impact.

See Response to Comment 25-21 regarding cumulative health impacts.

Response 28-20: The commenter identified typographical error with Table 3.3-4 on page 3.3-25 of the Recirculated Draft EIR. It has been corrected to include the table number (new text is underlined and ~~strikethrough~~ is used for deleted text):

"**Table 3.3-4 Ambient Air Quality Standards for Criteria Pollutants**"

Response 28-21: Commenter states that the columns for "HP" and "Load Factor" in Table 3.3-6 should be explained. In response the City state, that a load factor accounts for the average throttle setting relative to capacity. That is, a load factor of 0.62 equates to 62 percent of capacity during operation. The horsepower (HP) is the engine size rating of the equipment.

Response 28-22: The commenter questions why any demolition would be required if there are no structures on the site. The commenter also questions the location where the excess dirt will be taken that is within 20 miles of the site.

The City responds by stating the following:

Construction activities include site preparation, earthmoving, and general construction. Site preparation includes land clearing and grubbing. Earthmoving activities include cut-and-fill operations, soil compaction, and grading.

As the current project site is clear of structures, minimal demolition would be required. Secondly, the project site is level and thus, minimal site preparation (10 days) and grading (20 days) would be required. Site preparation would consist of land clearing and grubbing. Based on the information provided in the Preliminary Grading Plan, a total of 15,000 cubic yards of soil export is anticipated during construction. The export of soil (a total of 15,000 cubic yards involving 1,875 truck trips) is expected to occur during the grading phase (per CalEEMod) not the site preparation stage. It is not specifically known where haul trips would go and a CalEEMod default trip distance of 20 miles was used. However, it is anticipated that locations for disposal of the excess dirt that are within 20 miles of the site will be identified, based upon the previous experience of the City and applicant.

Given the existing conditions at the project site (minimal demolition, level surface, no significant structures), the estimated construction emissions during the initial phases (demolition, site preparation, grading) are expected to be overly conservative (over estimation), which would tend to overestimate the resultant LST analysis and health risk assessment for construction activities.

Response 28-23: The commenter asks for an explanation for the decreases in construction emission for 2016 in Table 3.3-9 and 3.3-10 in the Recirculated DEIR from what was reported in these same tables in the DEIR. The responds by stating the construction emissions inventory was revised for the RDEIR to address comments on the duration of the construction, the size of the construction footprint, the inclusion of haul trucks, etc, as documented in THRESHOLD AQ-1. These changes resulted in higher estimated construction emissions during 2015 but slightly lower estimated construction emissions during 2016. The results remained less than significant with mitigation (see Table 3.3-10 on page 3.3-31).

Response 28-24: The commenter asks for an explanation of the dust control efficiencies referenced in the first two paragraphs on page 3.3-31. The City responds as follows:

MM AQ-1 through AQ-11 identify emission reduction measures associated with construction fugitive dust and combustion emissions.

It is mandatory for all construction projects in the South Coast Air Basin to comply with SCAQMD Rule 403 for fugitive dust. Specific Rule 403 control requirements include, but are not limited to, applying water in sufficient quantities to prevent the generation of visible dust plumes, applying soil binders to uncovered areas, reestablishing ground cover as quickly as possible, utilizing a wheel washing system to remove bulk material from tires and vehicle undercarriages before vehicles exit the project site, and maintaining effective cover over exposed areas.

Erosion control measures and water programs are typically undertaken to minimize these fugitive dust and particulate emissions. A dust control efficiency of 75 percent due to daily watering and other measures was estimated. Application of water reduces fugitive dust emissions by a factor of approximately 34 to 68 percent (per SCAQMD *CEQA Air Quality Handbook*). It is assumed that one water application per day reduces fugitive dust by 34 percent, two water applications per day reduces fugitive dust by 50 percent, and three water applications per day reduces fugitive dust by 68 percent. Applying soil stabilizers to inactive areas reduces fugitive dust by 84 percent. Additional measures would allow for a total fugitive dust control efficiency of at least 75 percent and compliance with SCAQMD Rule 403. Furthermore, application of appropriate emission control devices, the use of newer equipment, or other exhaust mitigation measures would reduce exhaust particulate matter by 50 percent.

SCAQMD Rule 403 requires extensive measures be followed to control fugitive dust. Within CalEEMod specific mitigations measures and control efficiencies include soil stabilizer for unpaved roads (84 percent), replace ground cover of area disturbed (5 percent), water exposed area with frequency of three times daily (61 percent), and limit vehicle speed on unpaved roads to 15 mph (57 percent).

Response 28-25: The commenter questions the removal of the DEIR's mitigation measure AQ-3 from the RDEIR. In response, the City determined that mitigation measure AQ-3 and AQ-5 were determined to be redundant. As such, AQ-5 was kept and AQ-3 was removed. The City does not believe that mitigation measure AQ-5 should be modified to expressly identify construction equipment as it currently states, "Heavy equipment operations shall be discontinued during first and second stage smog alerts." This would include the operation of construction equipment.

The commenter also questions why mitigation measure AQ-7 only requires compliance with Tier 2 or better emission control devices for construction equipment. In response, the City determined that Construction emissions were found to be less than significant with the application of Tier 2 or better equipment; the use of Tier 3 was not needed to reduce construction activity impact below the significance thresholds. Mitigation measure AQ-17 is designed for operational equipment, for which Tier 3 equipment is readily available.

In response to the commenter concerns regarding mitigation measure AQ-8, that mitigation measure, found on page 3.3-33 of the Recirculated Draft EIR, is revised as follows (new text is underlined and ~~strikethrough~~ is used for deleted text):

"MM AQ-8

Prior to commencement of operations, t~~T~~he Applicant ~~project~~ shall develop and implement a plan, to the reasonable satisfaction of the City, demonstrating that the off-road equipment (more than 50 horsepower) to be used in the construction project (i.e., owned, leased, and subcontractor vehicles) would achieve a project wide fleet-average 20 percent NO_x reduction and 85 percent PM reduction compared to the most recent CARB fleet average (i.e., Tier 2 equipment or better). Acceptable options for reducing emissions include the use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, add-on devices such as particulate filters, and/or other options as such are available."

Response 28-26: The commenter suggests that the discussion of Threshold AQ-1 be modified. In response the City states a majority of the construction ROG emissions are related to the application of architectural coatings. As such, the Recirculated DEIR, at p. 3.3-31 states, "The Applicant shall limit ROG construction emissions during the application of architectural coatings and solvents pursuant to the provisions of SCAQMD Rule 1113 (MM AQ-10 and AQ-11)." This statement makes it apparent that MM AQ-10 and AQ-11 were proposed to reduce the impacts to less than significant. However, MM AQ-2 through AQ-9 would also reduce ROG emissions from combustion activities related to construction. As such, no modifications to the Recirculated DEIR are necessary in response to this comment.

Response 28-27: The commenter suggests that the Recirculated DEIR's discussion of 4,360 tons per day of throughput is unclear and recommends that it be modified. In response, the City supplements the discussion of this topic in the Recirculated DEIR on p. 3.3-35 with the following: "To assess air quality impacts from off-site vehicle emissions that will foreseeably result from the Project, the Draft EIR published in April 2014 assumed a baseline condition that took into consideration these existing relocated emissions [4,360 tons per day]. However, to be extremely conservative and to avoid under-representing any potential air quality impacts from the Proposed Project, the City has analyzed all the trips to be new trips in this Recirculated DEIR [thus removing these 4,360 tons per day from the baseline]."

Response 28-28: The Commenter states that the entirety of Table 3.3-13 should be deleted and requests clarification of the information contained in the last paragraph of 3.3-38 regarding average travel distances. In response, the Commenter is correct that the entirety of Table 3.3-13 displayed on p. 3.3-38 was to be removed. In addition, the average travel distances for collection/roll-off trucks, self-haul trucks, and employees were based on *Proposed Irwindale MRF – Regional Efficiency Study, May 28, 2009* for haul trucks and CalEEMod for employees. See Response to Comment 28-7 for basis of 9.1 mileage for the vehicles that will be parked off site under the Project Variant. As stated previously, the Project Variant has been eliminated as an alternative.

Response 28-29: The commenter states the values in Table 3.3-13 (page 3.3-40) and Table 3.3-14 (page 3.3-41) should be expressed in pounds per day. In response, the title of these Tables in the Recirculated Draft EIR are revised as follows (new text is underlined and ~~strikethrough~~ is used for deleted text):

"Table 3.3-13 Estimated Daily Unmitigated Proposed Project Emissions from Project Operation (pounds/day)"

"Table 3.3-14 Estimated Daily Unmitigated Proposed Project Emissions from Project Variant (pounds/day)"

The commenter also questions the analysis that concludes that the unmitigated emissions for the Project and the Project Variant would be very similar. First, as stated previously, the Project Variant is no longer under consideration. Second, the Project and the Project Variant would result in very similar operational emissions. The only difference is the estimated emissions designated as Collection Trucks (local) where the Project Variant is slightly higher.

The commenter then states that Appendix C does not appear to include the emissions calculations, or even a summary of the total calculations. Furthermore, Appendix C provides emission factors for only some vehicles, not all of the vehicles that would be operating as part of this project. In response, the operational emissions from haul trucks were developed based on EMFAC2011 emission factors. Operational emissions from employees and service station visitors/deliveries were developed based on CaLEEMod.

The emission factors for CNG and propane onsite equipment were based on the California Emissions Estimator Model, *User's Guide (July 2013)*, Appendix D, (September 2013): Table 3.4 (OFFROAD Equipment Emission Factors), and Table 3.6 (Percent Reduction in Diesel Emission Factors for Compressed Natural Gas Equipment). This information is found at http://www.caleemod.com/. As such, the emissions have not been understated in the Recirculated DEIR.

Response 28-30: The commenter questions the travel distance of 9.1 miles under the Project Variant as discussed on p. 3.3-42. In response the City refers the commenter to the response to Comment 28-7 for basis of 9.1 mileage for the vehicles that will be parked off site under the Project Variant. As stated previously, the Project Variant has been eliminated as an alternative.

The commenter then contends that the following sentence should be removed, "The regional efficiencies would reduce both criteria pollutants and GHG emissions below what I is stated in this analysis because existing transfer trucks occur between an existing transfer station and landfill." In response the City states with regard to regional efficiency, in all likelihood all the trips to the Irwindale MRF would not be new trips, because the operation of the new MRF/TS would not create new waste to be processed. The trip lengths to the Irwindale MRF/TS would be less than the trip lengths to some competing MRFs but would be more than the trip lengths to other competing MRFs. However, because the Proposed Project does not include reducing waste

volumes going to other MFR/TS or reducing the permits at other MRF/TS locations, the most conservative analysis is to assume all the trips to the Irwindale MRF/TS would be new trips

Response 28-31: Commenter states that the modifications to mitigation measure AQ-17 in the Recirculated DEIR should not have been made and states the mitigation language in the DEIR should have been retained. In addition, the commenter asks why Tier 4 equipment is not required now that it is available for on and off-site mobile equipment/haulers. In response, the City has modified MM AQ-17 in the Recirculated Draft EIR as follows (new text is underlined and ~~strikethrough~~ is used for deleted text):

"**MM AQ-17**

The Project Applicant shall require all on-site off-road heavy-duty equipment (loaders, excavators, skid steer) to meet USEPA Tier 3 emissions standards (or Tier 4 emission standards, based on availability at the initiation of the Project).[33] In addition, these on-site off-road construction equipment used in operation of the Project shall be outfitted with the Best Available Control Technology (BACT) devices certified by CARB. Any emissions control device used by the applicant shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations. A copy of the certified tier specification for each piece of heavy-duty equipment, BACT documentation, and CARB or SCAQMD operating permit shall be provided to the City prior to operation of the Project."

Commenter then asks if the City requiring Tier 4 as a condition of future hauling and construction contracts for third-party haulers. In response, the City did consider this as a possibility and determined that it would be counter productive as it would hinder haulers utilizing Tier 3 vehicles from using this MRF/TS facility even if it was closer than another MRF/TS facility that does not have this requirement. For instance, the Waste Management MRF/TS in Azusa has not implemented such a requirement. As such, the City has determined that imposing such a requirement as mitigation is not feasible.

Response 28-32: The commenter states that Table 3.3-15 needs to be corrected to show that its values are in pounds per day. In response, the City has modified Table 3.3-15 (Estimated Daily Mitigated Proposed Project Emissions from Project Operations) to specify that the values represent

[33] The first federal standards (Tier 1) for new nonroad (or off-road) diesel engines were adopted in 1994 for engines over 37 kW (50 hp), to be phased-in from 1996 to 2000. In 1998, the USEPA signed the final rule introducing Tier 1 standards for equipment under 37 kW (50 hp) and increasingly more stringent Tier 2 and Tier 3 standards for all equipment with phase-in schedules from 2000 to 2008. The Tier 1-3 standards are met through advanced engine design, with no or only limited use of exhaust gas after treatment (oxidation catalysts). Tier 3 standards for NOx+HC are similar in stringency to the 2004 standards for highway engines. In 2004, the USEPA signed the final rule introducing Tier 4 emission standards, which are to be phased-in over the period of 2008 to 2015. The Tier 4 standards require that emissions of PM and NOx be further reduced by about 90 percent. Tier 2 engines reduce NOx emissions by approximately 37 percent compared to Tier 1 engines, while Tier 3 engines achieve a 62 percent reduction in NOx-HC emissions.

pounds per day. The Table Title in the Recirculated Draft EIR is revised as follows (new text is underlined and ~~strikethrough~~ is used for deleted text):

"**Table 3.3-15 Estimated Daily Mitigated Proposed Project Emissions from Project Operation (pounds/day)**"

The commenter then claims that the Recirculated DEIR does not appear to include mitigated Project emissions numbers for the Project Variant. In response, the City states the emissions associated with self-haul trucks were revised in the Recirculated Draft EIR due to an adjustment in the travel distance. Emissions from onsite equipment were revised in the Recirculated Draft EIR to reflect an updated list of equipment. However, as stated previously, the Project Variant has been eliminated as an alternative, and this issue is moot.

Response 28-33: The commenter states that the City should require as a mitigation measure that the applicant to use, and contract with third parties to use, alternatively fueled trucks and equipment.. In response, the City states MM AQ-1 states that "In the event third party collection haulers were required, all diesel truck operators that use the facility would be encouraged to apply in good faith for funding from an established CARB or SCAQMD funding program to either retrofit or replace engines."

The use and/or purchase of all alternative fueled vehicles beyond what is required by Rule 1193 as part of this Proposed Project is infeasible due to the high cost of refuse collection vehicles and existing requirement that alternatively fueled vehicles replace existing vehicles to comply with the SCAQMD Rule 1193. The SCAQMD rule considers what is economically feasible for purposes of imposing Rule 1193 on solid waste operators. For example, Rule 1193 includes provisions for economic hardship of small private fleet operators that can allow two one-year extensions to acquire rule compliant vehicles. Also, the transfer trucks are still primarily diesel fueled because at this time there are no suppliers that can deliver feasible alternatives (alternative-fueled transfer trucks). Rule 1193 requires fleet operators to go through a procurement process for alternative-fueled transfer trucks, but bids generally are not responded to because alternative-fueled vehicles don't meet other bid specifications (Cole, 2014). The process is outlined in Rule 1193 (f)(3)(A). As alternative-fueled vehicles with appropriate specifications needed for transfer trucks become available, Rule 1193 requirements will ensure that fleets will add these vehicles for future replacements. Furthermore, it should be noted that Waste Management's Azusa MRF/TS was not required to contract with third parties to use alternatively fueled vehicles. (See Waste Management Material Recovery Facility/Transfer Station and Household Hazardous Waste Facility Environmental Impact Report, Mitigation Measure AQ-3.)

Response 28-34: The commenter requests clarification of the discussion in the last paragraph of p. 3.3-48 regarding the analysis of CO and NO_2 concentration. The City responds by stating that in order to determine if the concentrations of CO, SO_2, and NO_2 (attainment pollutants) would be below the ambient air quality standards, the maximum background concentrations for NO_2 and CO from 2010 through 2012 at the Azusa monitoring station were determined from the data

summarized in Table 3.3-1. These concentrations were then added to the maximum modeled project-related concentrations for these pollutants to determine the combined project and background concentrations. The total concentration (project plus background was compared to the significance threshold for NO_2 and CO). Per SCAQMD guidance, for PM_{10} and $PM_{2.5}$ the project modeled concentrations were not added to background concentrations. The concentration thresholds are displayed in Table 3.3-4. This was completed for construction and operations. This LST analysis and ambient monitoring data were provided in Appendix C.

Response 28-35: The commenter first asks whether the SO levels set forth in the first paragraph of p. 3.3-49 include background concentrations. In response, the LST analysis for SO_2 included background concentrations.

In response to commenter's suggestion that the third full paragraph on p. 3.3-49 should specify that it is discussing operational impacts, the City has modified that paragraph as follows (new text is underlined and ~~strikethrough~~ is used for deleted text):

"For operations, t~~T~~he project-related CO impacts including background concentrations are 3.2 and 1.4 ppm for the 1-hour and 8-hour averaging periods, respectively; well below the thresholds of 20 and 9 ppm, respectively. The project-related NO_2 impacts including background concentrations are 0.19 and 0.02 ppm for the 1-hour and annual averaging periods, respectively. The 1-hour NO_2 impact is above the threshold of 0.18 ppm. The SO_2 impacts are less than 0.01 ppm as a result of ultra-low sulfur diesel. Diesel fuel does not contain lead emissions and gasoline fuel is unleaded."

Commenter then states that the fifth paragraph on p. 3.3-49 should specify what ambient air quality standards are exceeded by the Project. In response, the City states that without implementation of mitigation measures the air quality impacts of NOx and PM_{10} emissions from the Proposed Project would be potentially significant. However, with implementation of **MM AQ-14** through **MM AQ-18**, air quality impacts from NOx and PM_{10} emissions from the Proposed Project are less than significant (see pages 3.3-49 and 3.3-50).

The commenter then states that it is unclear if the NO_2 and PM_{10} concentrations set forth in the last paragraph of p. 3.3-49 are after mitigation. In response the City has modified this last paragraph as follows:

"MM AQ-1 through MM AQ-11 would further reduce the construction impacts. For example, the mitigated NO_2 impacts including background concentrations are 0.13 and 0.02 ppm for the 1-hour and annual averaging periods, respectively. The mitigated project construction incremental PM_{10} impacts are 1.7 for 24-hour impact and 0.2 $\mu g/m^3$ for annual impacts. The mitigated project construction incremental $PM_{2.5}$ impacts are 0.9 $\mu g/m^3$ for 24-hour impacts.

Operational p~~P~~roject-related air quality impacts from NOx and PM_{10} emissions would be significant; and therefore, the project is required to adhere to **MM AQ-1~~2~~4** through **MM AQ-18**.

With imposition of **MM AQ-1~~2~~4** through **MM AQ-18**, the mitigation program would reduce the 1-hour NO2 impacts including background concentrations to 0.15 ppm; which is below the

threshold of 0.18 ppm. The mitigated 24-hour PM_{10} and $PM_{2.5}$ impacts would be 1.1 µg/m3; below the 24-hour threshold of 2.5 µg/m3. Thus, air quality impacts from NOx and PM_{10} emissions from the Proposed Project are less than significant with mitigation."

Response 28-36: The commenter states that the first sentence on p. 3.3-50 should specify that operation of the Project would result in significant air quality impacts. In response the City states that without implementation of mitigation measures the air quality impacts of NOx and PM_{10} emissions from the Proposed Project would be potentially significant. However, with implementation of **MM AQ-14** through **MM AQ-18**, air quality impacts from NOx and PM_{10} emissions from the Proposed Project are less than significant (see pages 3.3-49 and 3.3-50).

The commenter then asks how MM AQ-1 through MM AQ-18 will lessen the CO, NOx and PM10 emissions. The City responds by referring commenter to the City's response to Comment 28-35.

Response 28-37: The commenter states that on p. 3.3-57, the references to the mitigation measures designed to lessen cancer risks were incorrect. In response, the City has modified the third sentence of the second paragraph as follows (new text is underlined and ~~strikethrough~~ is used for deleted text):

"The project is required to adhere to **MM AQ-12** through **MM AQ-18** which have been designed to further reduce combustion emissions such as diesel particulates and thus reduce the cancer risks."

The commenter states the values set forth on p. 3.3-57 for maximum incremental cancer risks during construction and operation activities as well as the maximum chronic hazard index do not appear in the Health Risk Assessment and state and that they should be included. In response the City states that the health risk assessment methodology, assumptions and supporting data including emission calculation spreadsheets, dispersion modeling analysis, and toxicity evaluations is contained within Appendix C of the Recirculated Draft EIR and its supporting electronic files. Collectively, these data provide the basis for the health risk assessment and the calculations of the results for the cancer risks, chronic and acute hazard indices, and the cancer burden values for the Proposed Project construction and operations. The health risk assessment results were prepared for various receptor types (recreational areas, offsite workers, residential, and schools) for the unmitigated and mitigated conditions as detailed in within Appendix C of the Recirculated Draft EIR and its supporting electronic files.

Response 28-38: The commenter states that the following sentence on p. 3.3-68 should be deleted, "That is, estimated maximum throughput for the Baseline Condition s 4,360 tons per day (based on market share, waste amounts, and trip distances) but conservatively evaluated at 0 tons per day. In response, the City does not believe the sentence needs to be removed as it accurately states that the baseline used for purposes of evaluation was 0 tons per day.

Response 28-39: The commenter contends that the alternatives analysis fails to identify the construction impacts of the Reduced Tonnage Capacity Alternative which it is contended makes it impossible to compare the nature and extent of its construction impacts to those of the project.

In response, the City states the Recirculated DEIR provides the information about each alternative to allow for meaningful evaluation, analysis and comparison with the proposed project (State CEQA Guideline Section 15126.6(d)). The City recognizes the EIR alternatives discussion focuses on operational effects; however, the EIR is compliant with the "rule of reason" regarding the alternatives being selected and discussed to provide for meaningful public participation, and for informed decision making.

The City determined the Reduced Tonnage Capacity Alternative would provide a similar land development project as required for the construction and operation of the proposed MRF/TS (page 5.0-27). The Reduced Tonnage Capacity Alternative was discussed to reduce air impacts related to the SCAQMD thresholds. This alternative involves a 25% reduction of tonnage capacity to 4,500 tons per day. The project footprint is estimated to be reduced by approximately 10-15% rather than a corresponding 25% since some sizing parameters are related to efficient movement of materials and trucks into, through, and out of the facility that are not directly related to tonnage capacity. The Recirculated Draft EIR (page 5.0-27) summarized: "The Reduced Tonnage Alternative would result in lessened environmental impacts compared to the Proposed Project by reducing the total traffic volume and related air emissions and traffic noise. However, this alternative does not capture the full potential to recover materials from the local and regional waste stream prior to transfer and/or disposal…..".

Response 28-40: In response to commenters that the third sentence on p. 5.0-6 is incomplete, the City has revised the text as follows (new text is <u>underlined</u> and ~~strikethrough~~ is used for deleted text):

"In addition, the Pit has not yet undergone reclamation to allow for development of the site, and based upon the City's experience with properly compacted backfill reclamation at multiple sites (Reliance, Nuway and Manning pits for example), reclamation of this site will take up to a decade or more, including initial reclamation planning and independent environmental review to ensure proper backfill and compaction to support subsequent development ~~would require separate~~."

Response 28-41: The reduced tonnage capacity alternative discussed in the Draft EIR (a 56% reduction in tons per day (tpd) from the Proposed Project) was analyzed because it could achieve reductions in ROG and NOx emissions to a level below the SCAQMD significance thresholds, thus reducing significant and unavoidable air quality impacts to a less-than-significant level.

However, the Draft EIR Air Quality Analysis used an Estimated Daily Baseline Emissions condition that assumed 50% of truck trips from the Proposed Project are already currently occurring in the Air Basin, thus Estimated Daily Project-Related emissions were calculated by subtracting Estimated Daily Proposed Project Emissions from Estimated Daily Baseline Emissions.

The Recirculated Draft EIR Air Quality Analysis used a Zero Baseline Condition and neither the 56% nor the 25% reduction in tpd would reduce ROG and NOx emissions to a less-than-significant

level. The City modified the reduced tonnage capacity alternative discussed in the Draft EIR and analyzed the 25% reduction in tpd in the Recirculated Draft EIR because staff ultimately determined that the 56% reduction alternative did not meet most of the main objectives of the Proposed Project. The 25% reduction still achieves some of the benefits of the 56% reduction in tpd alternative analyzed in the Draft EIR (such as pollutant emission reductions) while also achieving most of the basic objectives of the Proposed Project.

Response 28-42: The City does not agree with the comment. Please refer to Response 38-39. The discussion of a Source-Separated MRF Alternative addressed air quality and truck trips on pages 5.0-29, 5.0-30, and 5.0-32. As indicated in the text for the Source-Separated MRF Alternative, it was included in part because other comments on the Draft EIR. Specifically the Los Angeles Alliance for a New Economy (LAANE) believed analysis of this alternative would be helpful in the Alternatives Chapter.

Response 28-43: The commenter requests to receive copies of all future public notices issued in relation to the proposed project. In response, he City will provide all future notices to Andrea K. Leisy at RMM regarding this project, as requested. The comment letters will be provided within Chapter 8.0 of the Final EIR.

Response 28-44: Commenter states that the project traffic impact analysis use of the 2011 trip counts from the Gibson traffic impact study and then adjusting those trip counts by a factor based upon obtaining new trip counts in 2013 is flawed. In response, the City refers commenter to its response to Comments 28-3 and 28-4. Commenter then states that trip counts taken in 2013 for the AM peak hour at several study locations revealed the trips increased by 6 and 9 times what is reflected in the adjustment factor used in the City's traffic impact analysis. In response, the City states that the methodology employed was developed in consultation with and approval of the City Engineer, and was discussed with Caltrans who had no criticism of the methodology as evidenced by their comment letters on the DEIR and RDEIR. Finally, note that peak hour count data has been updated to 2016 conditions in the updated Traffic Impact Assessment prepared as a part of this FEIR, and accounting for the Irwindale Regional Shopping Center and the Olive Pit Mining and Reclamation Project. The TIA update was conducted to determine whether the conclusions regarding MRF/TS project impacts and mitigation measures were still applicable and sufficient under the revised traffic count and cumulative project scenarios, and accounting for the shopping center's traffic mitigation measures. The study concludes that with the mitigation measures imposed on the Regional Shopping Center Project, the MRF/TS impacts are unchanged, and that MM T-1 and MM T-2 are adequate and applicable to mitigation the Proposed Projects effects at the I-605/Live Oak Avenue ramps.

Response 28-45: The commenter states that the traffic projects for the years 2016 and 2035 are deficient because they are based upon invalid existing conditions data and the growth factors used are inconsistent. In response, the City states that per CMP document, the growth factors presented

in Appendix D, Exhibit D-1 are based on *regional modeling* efforts, and estimate the general effect of cumulative development and other socioeconomic changes on traffic throughout the region.

The 2040 peak hour data from the *Traffic Study Report for I-605/Live Oak Avenue/Arrow Highway Interchanges (December 14, 2012)*, prepared by Advantec Consulting Engineers is used for comparison purposes to present the relationship between applying CMP growth factor to develop Long Range 2035 and using the Southern California Association of Governments (SCAG) 2008 and 2035 traffic demand models to develop the 2040 peak hour data. Data review between Long Range 2035 peak hour data and 2040 peak hour data indicated an average growth of 2% per year (for 5 years) for the intersections along Arrow Highway during the AM peak hour. However, the 2040 AM peak hour data revealed a decrease (in comparison to 2035) of approximately *652 fewer trips* along Live Oak Avenue. Therefore, applying the LA CMP growth factor (1.106) to existing counts, *in addition* to the cumulative project / other development data to develop the Long Range 2035 baseline peak hour data is deemed conservative and reasonable for traffic impact analysis purposes.

Response 28-46: The commenter contends that the City failed to comply with its Policy Guidelines for Traffic Impact Reports by relying upon the HCM2000 rather than the HCM2010. In response, the City refers responding party to City's response to Comment 28-4.

Response 28-47: The commenter notes that the traffic analysis evaluated intersection level of service using the Highway Capacity Manual and the Intersection Capacity Utilization method. In describing the two methods, the Recirculated DEIR states the ICU method is more meaningful when identifying a project's impact. Yet the traffic analysis bases its conclusions regarding project-related impacts solely on the HCM analysis while totally ignoring the ICU analysis results. The commenter concludes that this indicates the traffic analysis serves to understate the project's traffic impacts. In response the City states that the HCM results were emphasized because they present a more accurate representation of the intersection operational level, as noted in Chapter 3.12 of the DEIR, page 3.12-73 and again at 3.12-80.

Response 28-48: The commenter states that the City used a capacity value of 1,900 vehicles per lane per hour, which exceeds the 2010 CMP documents maximum value of 1,600 vehicles per lane by 19 percent. The commenter states that this serves to understate the project's traffic impacts. In response, the City states that the commenter is confusing methodologies, and the HCM methodology utilized in the TIA is much more robust than the Intersection Capacity Utilization (ICU) method, and is therefore more appropriate and does not understate traffic impacts. The 1,900 vehicles per lane per hour for the HCM intersection analysis is the standard for the Highway Capacity Manual methodology, and was confirmed in consultation with the City Engineer at the onset of the study. In addition, Caltrans had no objections in their review of the TIA (see Caltrans letters (comment letter No. 2; May 22, 2014; and comment letter No. 2, September 22, 2014). The HCM method is generally preferred by Caltrans and the City since it accounts for a more complex set of variables that affect intersection performance.

Response 28-49: The commenter states that the traffic analysis deducts the pass-by trips from the overall project trip generation estimate, which is incorrect, as the total volume of traffic generated by the proposed project will travel through the project's driveways regardless of the pass-by percentage. In response, the City states that pass-by trips are by definition not new trips on the road network, and are instead existing traffic flow that stops at a shopping location for convenience purposes.

The commenter then states that the traffic analysis states that 63 percent of the convenience market trips have been defined as pass-by trips without any explanation as to the choice of the 63 percent figure. Commenter states that the project trips to the convenience store have been inappropriately reduced resulting in inaccurate estimates for level of service and queue length. In response, the City states that the 63 percent figure is based upon the ITE Trip Generation Handbook (2nd Edition, 2004) as cited in footnote 4 of Table 2-2 of the TIA (Project Buildout (2016) Trip Generation Summary); (p.37 of the March 2016 Updated TIA), and represents a reasonable average figure for this type of convenience store use.

There are instances when the total number of trips generated by a site is different from the amount of new traffic added to the street system by the generator. Retail-oriented developments such as service stations and convenience markets are often located adjacent to busy streets in order to attract the motorists already on the street. These sites attract a portion of their trips from traffic passing the site on the way from an origin to an ultimate destination. Pass-by trips are made as intermediate stops on the way from an origin to a primary trip destination without a route diversion. Pass-by trips are attracted from traffic passing the site on an adjacent street or roadway that offers direct access to the generator, and are therefore not diverted from another roadway. Pass-by trips do not involve a route diversion to enter the site driveway.

Response 28-50: The commenter states that the traffic analysis used the incorrect Caltrans standard for determining impacts to Caltrans facilities which is transition between LOS C and LOS D. Commenter states the traffic analysis utilized a standard of LOS D. In response, the City states that for State Highway facilities, the Caltrans Guide for the Preparation of Traffic Impact Studies (December 2002) states that Caltrans endeavors to maintain a target LOS at the transition between LOS"C" and LOS "D", however, Caltrans acknowledges that this may not always be feasible and recommends that the lead agency consult with Caltrans to determine the appropriate target LOS. The project team met with Caltrans during the course of the traffic study preparation, and City of Irwindale technical staff members have been participating with Caltrans and on-going improvement planning process for the I-605 / Arrow Highway interchange and I-605 / Live Oak Avenue interchange. The Caltrans Guide acknowledges that if an existing State highway facility is operating at less than the appropriate target LOS, the existing Measure of Effectiveness (MOE) should be maintained. Therefore, LOS "D" is used as the maximum acceptable threshold for study area ramp intersections and freeway mainline and ramp segments. Caltrans concurrence in the use of the standard of LOS D is evidenced by its letters to the City commenting on this project and the traffic analysis that do not raise any concern with the City's use of the LOS D standard.

Response 28-51: The commenter again raises concerns with the City's use of LOS D as the standard for evaluating impacts freeway mainline segments. In response, the City refers commenter to the City's response to 28-50.

Response 28-52: The commenter expresses concerns that neither the DEIR nor the Recirculated DEIR provides any analysis or discussion regarding of auto-truck conflicts and the potential safety issues associated with mixing automobile traffic with a considerable amount of heavy-vehicle traffic. In response, the City states that the auto-truck safety issues are implicit in the methodology, and are the very reason to employ a conservative passenger car equivalent (PCE) multiplier when evaluating the effects of heavy trucks on the road system. In the analysis of highway capacity and traffic service levels, PCE values have been used in the traffic impact analysis to convert flows of mixed traffic into equivalent flows of passenger cars. For the Project, conservative PCE factors are used: 1.5 for Self-Haul Trucks, 2.7 for Collection Trucks and 3.7 for Transfer Trucks. These PCE values are consistent with numerous other Solid Waste Facility Permits (SWFPs) available for review on the CalRecycle website.

Response 28-53: The commenter states that the Recirculated DEIR identifies mitigation measures to address significant impacts to various Caltrans facilities which would reduce the impacts to less than significant. However, because the facilities are under Caltrans exclusive jurisdiction the City cannot control whether or when the mitigation measures are implemented. In response the City agrees with commenter. As such, the Recirculated DEIR states that the impacts to the Caltrans facilities remain significant and unavoidable. (See Recirculated DEIR, p. ES-44). However, per Caltrans DEIR comment letter, dated 5/22/14, Caltrans acknowledges the project's off-site mitigation measures (MM T-1 and MM T-2 presented in the DEIR), and indicates that Caltrans will cooperate with the City of Irwindale and sponsors of the project to process an encroachment permit.

The City of Irwindale appreciates your participation in the public review process.

Comment Letter 29

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September 22, 2014

RE: Draft Program Environmental Impact Report for Irwindale Materials Recovery Facility and Transfer Station Project, State Clearinghouse #2013051029

Dear Ms. Kelly,

On behalf of the Los Angeles Alliance for a New Economy, we submit these comments on the recirculated Environmental Impact Report (EIR). LAANE is a tax-exempt, non-profit, organization that has spent over 20 years working with communities across Los Angeles County to develop good jobs, thriving communities and a healthy environment for everyone. Nearly four years ago, LAANE launched the Don't Waste LA Coalition, made up of over 35 organizations and small businesses, to establish region-wide standards in the waste and recycling industry. 1

We incorporate our prior comments submitted on May 16, 2014 by reference. Overall, we continue to be concerned with the flawed analysis for this project. The following two issues are raised as a result of the Recirculated EIR ("REIR).

I. The Inadequate Analysis of the Source-Separated Materials Recovery Facility (MRF) Project Alternative Violates the California Environmental Quality Act (CEQA). 2

We are deeply concerned with the EIR's analysis of a Source-Separated Materials Recovery Facility (MRF) option. It is improper to reject an alternative as infeasible based upon the preferences of a project applicant. To paraphrase the court in *Save Round Valley Alliance v. County of Inyo* (2007) 157 Cal.App.4th 1437, 1460, n. 10, because certain reduced development alternatives were not acceptable to Real Parties, Real Parties were apparently only *willing* to develop one specific project.

As the court noted:

> [T]he willingness or unwillingness of a project proponent to accept an otherwise feasible alternative is not a relevant consideration. (*Uphold Our Heritage v. Town of Woodside* (2007) 147 Cal.App.4th 587, 602 . . . .) If development of the [alternative project] will satisfy the basic objectives of the project and mitigate the environmental impacts of the project as proposed, [Respondents] could deny the permit for the project. That is, although [Respondents] cannot compel [Real Parties] to accept a [specific alternative], they can withhold their approval of the proposed [Project if Real Parties do not agree to the alternative].

2 con't

Id. The Source-Separated MRF was rejected simply because of the "*willingness*" of the Project Proponent, not on any objective standard of feasibility. This demonstrates the fatal flaw in the EIR's analysis and subsequent rejection of a Source-Separated MRF. The REIR acknowledges that this type of project meets the project objectives. *See* REIR at 5.0-29. In fact, the REIR articulates that it will have the same impacts as the proposed project.[1] *See* REIR at 5.0-30 -32. The rejection of this alternative comes down to the "preference" of the Project Applicant, and CEQA is not concerned with ensuring that the "business model" of the Project Applicant is preserved. Rather, CEQA simply serves to provide decision-makers with information about the impacts of a project on the environment. Accordingly, the REIR's inadequate attempt to reject a clearly environmentally superior alternative does not comply with CEQA's mandates of informed analysis.

II. The Mitigation Needs to be Strengthened for Air Quality.

3

The recirculated EIR does not adequately address concerns previously raised about the mitigation of significant air quality impacts. Specifically, given the adjusted baseline of air emissions in the REIR, the REIR recognizes there are greater significant air quality impacts than previously described, such as emissions of ROG and NOx due to project operations. We are concerned that there are not adequate additional mitigation measures to address this acknowledged increase in significant air emissions, such as requiring the use of cleaner trucks, including replacement of older transfer trucks. The REIR does not address or incorporate requiring alternative fueled trucks, which was requested in the prior comments.

We looking forward to working with the City to fix this flawed project. Please do not hesitate to contact us if you have questions about these comments.

Sincerely,

Jackie Cornejo
Project Director, Don't Waste LA
Los Angeles Alliance for a New Economy

Adriano Martinez
Staff Attorney
Earthjustice

[1] Commenters do not agree with the conclusion the analysis of impacts will be the same. Rather, we think source separation could result in less impacts for many categories of impacts.

Response to Comment Letter 29

Response 29-1: The City acknowledges the commenter's identification and previously submitted letter on the Draft EIR, included as Comment Letter 12 above.

Response 29-2: The project application submitted by the proposed project owner/operator involves construction and operation of a mixed-waste processing facility. As such, the EIR analyzed the project as a mixed-waste facility.

As a project alternative, the City analyzed a facility that would only receive loads of materials that are source-separated [referred to as a "source-separated" processing facility]. Refer to Section 5.7 Source-Separated MRF Alternative for discussion.

The Source-Separated MRF Alternative was included in the Recirculated Draft EIR based on comments on the previously published Draft EIR. The Source-Separated MRF Alternative discussion in Section 5.7 concluded that the Source-Separated MRF would have approximately equal impacts in comparison to the Proposed Project.

LAANE provides no analysis to support its belief that a source separated waste system is environmentally superior to mixed-waste processing. Removing higher percentages of organics from the waste stream (a statewide goal for CalRecycle) may be more achievable using advanced equipment in a mixed-waste processing facility. The Proposed Project would allow for advanced solid waste reduction facilities such as anaerobic digesters, because the mixed-waste processing facility could use new technologies to separate organic materials that could become feedstock for an anaerobic digester. Existing source separated waste systems (like those proposed by LAANE) are not well designed for maximizing the removal of organic materials (essentially wet garbage, including food wastes) from the waste stream.

Response 29-3: See Responses to Comments 19-3B and 19-17.

Comment Letter 30

To: Paula Kelly, Senior Planner

City of Irwindale,

5050 North Irwindale Ave.

Irwindale, Ca. 91706

We the undersigned "concerned" citizens of Baldwin Park would like to oppose the building of the proposed Transfer Station at the corner of Live Oak Ave. and Arrow Highway. 1

This facility should not be constructed at this location considering the close proximity to a large Residential area here in Baldwin Park. This area for the most part consists of private residences and 2 schools that should not be subjected to the increase in heavy truck traffic with the additional noise, soot, smoke and lung damaging effects of diesel fumes, not to mention the stench of another garbage plant to complicate the quality of life in our neighborhood. Your own RDEIR states that there will be "Significant Effects" to the areas of our concerns!

We already have one at the corner of Stewart Ave. and Live Oak Ave., one on Arrow Highway and a new one on Irwindale Blvd. and Gladstone St. How many do you need? We think you could find a more suitable location within your own City to place this Station. How about the old rock pit on Vincent Ave. just south of Arrow Highway that is in the process of being filled, with hundreds of trucks per day traveling mostly on Live Oak Ave. and Arrow Highway already!

We ask for your courtesy and consideration on this very serious impact on our Citizens!

Signed:

Name	Address
Bonnetta Ingram	4854 Jerry Ave. B.P.
Tonya S. Bowles	4954 Jerry Ave. BP
Joe Zuñiga	13838 Calais St. B.P.
Rebecca Zuniga	13838 Calais St BP.
Wayne Baldwin	4906 Jerry Ave B.P.
James Baldwin	4906 Jerry Ave B.P. 91706
	4902 Jerry Ave, B.P. 91706
Phan Hay	4902 Jerry Ave, 91706
Adriana Ubina	4912 Jerry Ave 91706
[illegible]	4912 JERRY AVE
A[illegible] P Ubina	4912 JERRY AVE.
[illegible]	4912 Jerry AVE BP 91706

(12)

Signed:

Name	Address
Jessica Acevedo	4337 Center st B.P.
J. Felix DeLoera	4119 Benham ave B.P
Jesus Sanchez	4819 Bresee ave. B.P.
NATHAN J FERNANDEZ	4819 BRESEE AVE, BALDWIN PARK, CA 91706
Jose Luis Fernandez	4819 Bresee Ave Baldwin Park
HOPE FERNANDEZ	4819 Bresee Ave. Baldwin Pk. Ca 91706
Laura DeLoera	4119 Benham ave B.P
Carmen Egure	4818 Jerry Ave. B.P.
JASON ACCLEDO	4337 CENTER ST. BP CA 91706
Tasiena Acevedo	4337 Center St BP CA 91706
Tiffany Acevedo	4337 Center St Baldwin Park, CA 91706
Pedro Acevedo	4337 Center St Baldwin PARK CA 91706
VAZQUEZ LUIS. E	4839 BRESEE AV BP. 91706
Carmen Vazquez	4839 Bresee AVE. B.P. 91706
Diana Jimenez	4835 Bresee Ave. B.P. 91706

Signed:

Name	Address
Patricia Nixon	4829 Benham Ave Baldwin Park
Margaretha Pieters	13834 Mashie Baldwin Park
Edwin Cortes	12735 Ledford st Baldwin Park
Aida Rivas	14118 Calais st B.P.
José Ramirez	4914 Benham St. B. Pk 91706
Guadalupe Albino	5036 Landis Ave Baldwin Park Ca 91706
Martha Leon	14029 Benbow St. Baldwin Park Ca
GABRIEL MEDRANOS	5045 LANDIS AVE. B.P.
Zaira E. Pineda	5124 Landis Ave. Baldwin Park
Claudia Cortes	5134 Landes Ave Baldwin Pk.
Luz Maria Ramirez	5131 Landis ave Baldwin Park
Ana L. Garcia T.	14337 Joanbridge st. Baldwin Park
LORENA MAYA S.	14337 Joanbridge st. Baldwin Park
Reginalda Pineda	14337 Joanbridge st. Baldwin Park.
Veronica Espinoza	5118 Wimmer Ave B.P. CA 91706

We the undersigned "concerned" citizens of Baldwin Park would like to oppose the building of the proposed Business Transfer Station at the corner of Live Oak Ave. and Arrow Highway.

1.	14314 E. Arrow Hwy	Baldwin Park	CA
2.	"	"	"
3.	"	"	"
4	14312 Arrow Hwy	BP	
5	14312 Arrow Hwy		
6.	14312 ARRow Hwy		
7.	14316 Arrow Hwy	Baldwin Park	
8.	14316 Arrow Hwy	Baldwin Park	
9.	14316 Arrow Hwy	Baldwin Park	
10.	14316 Arrow Hwy	Baldwin Park	
11.	5122 MARIE AVE	BALDWIN PARK	

We the undersigned "concerned" citizens of Baldwin Park would like to oppose the building of the proposed Transfer Station at the corner of Live Oak Ave. and Arrow Highway.

1. Erika R. Ruiz 4858 Jerry Ave Baldwin Park CA 91706
2. Carmen Chase 4858 Jerry Ave Baldwin Park CA 91706

Signed:

Name	Address
William Nakashima	13862 Masline St
Nuelito A. Patacsil	13856 Masline St.
Ella Tiu	13856 Masline St.
[illegible]	4753 Edra Ave
Michael Collins	4753 Edra Ave
Katherine Collins	4753 Edra Ave
Ashley Collins	4753 Edra Ave
[illegible]	4753 Edra Ave
[illegible]	4753 Edra Ave
Esperanza A. Sanchez	4819 Bresee Ave.
Alexandra De Leera	4119 Benham Ave.
Jesus Sanchez	4819 Bresee ave.
Naomi Martin Fernandez	4819 Bresee Avenue
Mcodens Family	4819 BRESEE AVE. BP

Signed:

Name	Address
Leticia Jimenez	13910 Masline st. B.P. Ca. 91706
MANUE/ MARTINEZ	4834/ JERRY AVE B.P. CA 9170
Junior Martinez	4834 Jerry Ave BP CA 91706
Karolina Gonzalez	4834 Jerry Ave., BP. CA 91706
Maria J. Gonzalez	13834 Nubia Baldwin Pk
Jesus Gonzalez	13834 NUBEA CT BALDWIN PARK
Ramon Perez	13812 NUBIA ST BALDWIN PARK
Yolanda C Ramirez	14012 E. Rockenback St. Bal. Park
Herma C. Marin	4933 Beese St. Bal. Park
Rosa Velarde	4834 JERRY AVE. B PK
Norberto Lopez	13838 ANADA ST BALDWIN PARK
Enriqueta Lopez	13838 ANADA ST BALDWIN PARK

Signed:

Name	Address
Yesenia [illegible]	13834 Anada St Baldwin Pk. CA. 91706
Rosa Velez	13829 Anada St. Baldwin Park CA 91706
Cristina Velasco	13829 Anada st Baldwin Park CA.
Jocelyn Velasco	13829 Anada st. Baldwin Park CA
Ofelia Velasco	13829 ANADA ST. BALDWIN PARK, CA. 91706
Gloria L. Servin	13829 Anada St. Baldwin Park, CA 91706
Luz A-Fones	13825 Anada St. Baldwin park ca. 91706
Francisco Rodriguez	13813 ANADA BALDWIN PARK CA 91701
Jose Rodriguez	13813 Anada st park ca 91706
ALEJANDRO OBREGON	4541 HORNBEAK AVE BALDWIN PARK CA 91706
Selma Garcia	13812 Masline St. Baldwin Park, CA 91706
Pablo [illegible]	13812 Masline St. Baldwin Park, CA 91706
Mayra Jimenez	13910 Masline St, Baldwin Park, CA 91706
Salvador Zamudio	1519 W. San Bernardino Rd West Covina CA 91

We the undersigned "concerned" citizens of Baldwin Park would like to oppose the building of the proposed Transfer Station at the corner of Live Oak Ave. and Arrow Highway.

1.	Josefina Garcia	4528 Landis Ave. Baldwin Park Ca	91706
2.	George Rodriguez	5125 Lanny Ave Baldwin Park Ca	
3	Lorraine Tanahara	14230 Los Angeles st Baldwin park,	
4.	Maria del Carmen Hernandez	14420 clark ST Apt 26 Baldwin park.	91706
5	Joanna Ramirez	3387 Paddy Ln Baldwin Park	91706
6	Pedro Ramirez	14220 CLARK ST BALDWIN PARK	91706
7	CELINA Rodriguez	4935 Alusa Canyon Baldwin park	91706
8	Nancy Marquez	4946 maine Baldwin park CA	91706
9.	Maria Leon	4926 maine Baldwin Park Ca	91706
10	Saira Tornero	14750 12 Maine Ave. Baldwin Park CA	91706
11.	MARIE ROSE PARRA	4818 ELDON ST. BP	91706
12.	Javier Florez	15125 Olive st B.P.	91706
13	Monique Robarte	14226 Los Angeles st B.P.	91706
14	Cricelva Rodriguez	4860 Benham AVE Baldwin Park	91706
15	Claudia Estrada	14306 School St Baldwin Park, CA	91706
16	Esmeralda Macias	4917 La Sena Ave. Baldwin Park.	91706
17	[illegible]	3649 Paddy Ln. Baldwin Park, CA	91706
18	Claudia Mendoza	14123 Olive st Baldwin Park CA	91706
19.	Maria Sanchez	4903 Stewart Ave. Baldwin Park Ca.	91706
20.	Rosa Covarrubias	14116 arada ST	
21.	Hortencia Montano	14122 Baldwin Par. Ca.	91706
22.	Hilda Camboa	4594 kenmore Baldwin Park	
23.	Josefa Martinez	14133 Calais ST Baldwin Park	
24.	Pablo Mendez	13909 NUBIA ST.	
25.	Maura Moran	14021 CRAGMONT ST. BALDWIN PARK CA.	91706
26.	JORGE MORAN	14021 CRAGMONT ST B.P.	91706
27.	JULIA ZEPEDA	5077 BENHAM AV. BALDWIN PARK	
28.	Juana Sanchez	5074 Benham Ave Baldwin Park	
29.	Maria E Felix	5054 Benham Ave B.P.	91706
30.	[illegible]	5046 Benham Ave B.P.	91706

We the undersigned "concerned" citizens of Baldwin Park would like to oppose the building of the proposed Transfer Station at the corner of Live Oak Ave. and Arrow Highway.

1. Maria Lopez Baldwin Park 4949 Elizabeth ST
2. Juana Tapia Baldwin Park 4968 Maine Ave.
3. [illegible] Baldwin Park [illegible]
4. Lourdes Nunez Baldwin park 14518 california AV
5. Maibeb Gonzalez Baldwin Park 14530 Los Angeles St.
6. Alicia Muñoz Baldwin Park 4144 monterey Ave. St.
7. Maricela Moran Baldwin Park 14590 California AV
8. Erika Contreras Baldwin park 14590 California Ave.
9. Brenda Rojo Baldwin park 4639 Stewart Ave.
10. Elida Contreras 4907 Benham Ave Baldwin Park
11. Eduardo Mendoza 5043 Larry Ave Baldwin Park
12. Maria Hernandez 14108 olive st Baldwin Park
13. [illegible]
14. Arthur Garcia 14015 Cragmont st
15. Erica Muro 5073 Benham Ave Baldwin Park CA 91706
16. Aurora Caro 4864 Jerry Ave Baldwin Park CA 91706
17. ANTONIO CARO 4864 Jerry Ave. Baldwin Park
18. GUSTAVO CARO 4864 JERRY AVE. B.P. 91706 CA. 91706
19. Evelyn Caro 4864 Jerry Ave. Baldwin Park CA. 91706

Response to Comment Letter 30

Response 30-1: The City acknowledges this letter is submitted by a citizen's group in opposition to the proposed project. Comments noted. Please refer to Chapter 5.0 Alternatives on the extensive list on alternative project sites initially examined. The City acknowledges that the proposed project could have potentially significant and unavoidable impacts, and has identified a wide variety of mitigation measures and project design adjustments to mitigate adverse effects to the extent feasible.

In comparison to the Proposed Project site, the Vincent Avenue site suggested in the comment lies adjacent to residences and is the same distance as the proposed site to a public school. The Vincent Avenue site is also in the process of being back-filled and would not be suitable for development for several years. Therefore, the Vincent Avenue site is determined to be unsuitable to meet the goals and objectives of the Proposed Project.

The City appreciates your participation in the public review process.

Comment Letter 31

Lead Agency: City of Irwindale, Community Development Dept.
Contact Person: Paula Kelly Senior Planner
Project Title Materials Recovery Facility and Transfer Station Project 1
Location 2200 ARROW Highway, City of Irwindale, County of L.A.
Project Location-Specific: Located at the Northwestern intersection of Live Oak Ave and ARROW Hwy.

We Oppose Athens Services 2200 ARROW Highway City of Irwindale, County of Los Angeles Due to air quality, Traffic and Noise. Will Cover the Mountains Views, the building. The schools near by, all the children and adults when out side. All the residents, some of us been here for yrs. Again We do not want Athens Services built.
Thank You for Your Concern for our well being:
Carmen Chase

1. x Carlos Diaz 14112 Nubia St
2. (626)736-8720 Baldwin Park CA 91706
3.
4. Marica Castaneda 5040 Baldwin Park Blvd g.p.
5. Alejandro Freso 5130 Landis Av.
6. Sandra Peñaloza 5130 Landis Av.
7. Linda Freso 5130 Landis Av.
8. Victoria Camara 5121 Landis Av
9. Feliciano Ozaeta 5135 Landis ave Baldwin Park
10. Jesus Ramirez 5137 " " " "
11. Luz " " " " " "
12. Lorena " " " " " "
13. Alex " " " " " "

We Oppose the building Proposed Transfer Station at the Corner of Live Oak Ave. and ARROW Highway.

1 Martin Berumen 14357 Joanbridge St. Baldwin
2 Maria Berumen 14357 Joanbridge St Baldwin
3 RAUL NAVARRO 5137 WIMMER AVE BALDWIN PA
4 ROSA Aldaco 5134 WIMMER AVE BALDWIN PA
5 Alicia Aldaco 5134 Wimmer Ave Baldwin Pa
6 Rosa Olmos 5134 Wimmer Ave Baldwin Pa
7 Barie Gonzales 5122 Wimmer Ave B.P.
8 William Rodriguez 5122 Wimmer Ave B.P.
9 MANUEL DELGADO 5112 WIMMER AV BP
10 Irene Arias 5121 wimer Ave B.P. CA 9170
11 Eugene Field 5115 Wimmer Ave B.P. Ca 9170
12 David Gonzalez 5105 wimmer Ave B.P. CA 9170
13 [illegible] 5025 Wimmer B P CA 91706
14. [illegible] Carillas 5031 Wimmer Ave B.P. CA 917
15. Kendra Drosco 5013 Wimmer Ave B.P. CA 91706
16. Maria Rodriguez 5008 Wimmer Ave B P CA 91
17. William Rossd 5019 Landis Ave B.P CA 917
18. Elva Garcia 13851 NUBIA ST BALDWIN Park CA 9170
19. Rosa Molina 4942 Jerry Ave Baldwin Park Ca 9170
20. Ana Mendoza 13903 Nubia St Baldwin Park CA 917
21 [illegible] 13925 Nubia st. Baldwin Park CA 917
22. [illegible] 13925 Nubia st. Baldwin Park CA 917
23 [illegible] 13925 Nubia St Baldwin Park 917
24 Sergio [illegible] 13925 Nubia st Baldwin
25 Angel Arechiga 4943 Cutler Ave Baldwin Park 91706
26. Maria Arechiga 4943 cutler ave B.P.
27. 4423 center st. 91706 Maria Serrano
28. URIEL RUIZ 4926 Bresee B.P. 91706
4926 BRESEE AVE B.PK. CA 91706
29 Maria Ruiz [redacted] 4926 Bresee Ave BP 91706
30. Raylene Ruiz 4926 Bresee Ave B P 91706

Response to Comment Letter 31

Response 31-1: The City acknowledges this letter is submitted by a citizen's group in opposition to the proposed project. Comments noted. Please see Response to Comment 11-7 regarding mountain views. The City acknowledges that the proposed project could have potentially significant and unavoidable impacts, and has identified a wide variety of mitigation measures and project design adjustments to mitigate adverse effects to the extent feasible.
The City appreciates your participation in the public review process.

Comment Letter 32

August 26, 2014

Ms. Paula Kelly, Senior Planner
5050 North Irwindale Avenue
Irwindale CA. 91706

Dear Ms. Kelly:

RECIRCULATION OF THE ENVIRONMENTAL IMPACT REPORT
IRWINDALE MATERIALS RECOVERY FACILITY AND TRANSFER STATION

Thank you for the opportunity to review the Recirculated Environmental Impact Report for the proposed Irwindale Materials Recovery Facility and Transfer Station (MRF/TS). The project proposes to construct and operate a regional facility where residential, commercial, and/or industrial municipal solid waste and recyclable materials are delivered by commercial and non-commercial haulers, and sorted and processed prior to delivery at end use distributors. 1

Although residents of Baldwin Park support state mandated recycling efforts, we strongly oppose the location of the proposed project for the following reasons:

1. As indicated under *Significant Unavoidable Adverse Impact* section of the REIR: the proposed facility will result in significant and unavoidable impacts to air emissions (which includes an increase ROG and NOx chemical agents known to be harmful to human health), noise and traffic. Does disclosure of this information make it okay/fair for Baldwin Park residents who stand to be most affected with this project? Current air quality, noise levels, and bad odors surrounding our residences are already well beyond acceptable levels due nearby I-605 and I-210 Freeways to the west and north of proposed site; several recycling facilities on Live Oak; and a Waste Management Corporation yard on Steward Avenue. San Gabriel Valley already has the worst air condition in the entire County; no need to add more pollutants to the air we breathe.

2. The proposed facility will bring down the value of our properties due to its adverse impacts to air quality; increased bad odors, noise, and traffic. Current, truck traffic levels on Live Oak and on Arrow Highway are much higher that on other roads of similar characteristics, mainly due to the type of business that operate in the City of Irwindale. The bad odor that emits from the Waste Management Corporation yard on Steward Avenue is more than we can live with, and the smog produced by the thousands of vehicles that travels daily on nearby freeways already do the job of providing our residents with the worst air quality in the region. Enough is enough, please stop this madness. 2

As stated on document, the proposed project would result in a significant ROG and NOx impacts during operations. Following is some information pertaining to the presence of these two chemicals and their effect on human health.

> Volatile Organic Compounds (VOCs), also know as ROGs, are dangerous to human health and may cause long term health effects. NOx is a generic term for mono-nitrogen oxides NO and NO2 (nitric oxide and nitrogen dioxide). They are produced from the reaction of nitrogen and oxygen gases in the air during combustion, especially at high temperatures. When NOx and VOCs react in the presence of sunlight, they form a significant form of smog, especially in the summer. Children, people with lung diseases such as asthma, and people who work or exercise outside are particularly susceptible to adverse effects of smog such as damage to lung tissue and reduction in lung function.

2 con't

Does anyone care about human health anymore? Recently the City of Irwindale made news voicing its residents' concerns regarding strong odors coming from Sriracha hot sauce plant. Who in their right mind would now support a project that would have far more impacts to human health than a hot spicy odor? The City of Irwindale should look for an alternate location; perhaps closer to its residents, for this project just not on our backyard.

Passionately, I'm quite disappointed with City of Baldwin Park's involvement with this proposal. Baldwin Park residents live within 300 feet from project's location, do City officials even care about how this project will degrade human health and jeopardize the quality of life of its residents. Baldwin Park residents do not stand to benefit from this. On the contrary, we will have to put up with bad odors, increased traffic, worsen air pollution, and exposure to hazardous material which represent a high health risk. Please, please reconsider an alternate location.

3

Baldwin Park residents will oppose any project that worsens air quality and puts at risk public health.

4

If you have any questions regarding these comments, please contact Bella Hernandez at (626) 715-6383 or bllhernandez13@gmail.com.

Sincerely;

Bella A. Hernandez
Baldwin Park Resident

Response to Comment Letter 32

Response 32-1: The City acknowledges that this letter is submitted in opposition to the location of the proposed project.

MM AQ-1 through AQ-11 (page 3.3-31 of the RDEIR) are identified to address potentially significant impacts associated with fugitive dust and combustion emissions due to construction activities. With these mitigation measures imposed as conditions of project approval, the resulting construction emissions are reduce to less than the SCAQMD Significance Thresholds.

MM AQ-12 through AQ-18 (page 3.3-43 of the RDEIR) are identified to address potentially significant impacts associated with combustion emissions due to haul trucks and onsite equipment operations. With these mitigation measures imposed as conditions of project approval, the resulting operational emissions are reduced to less than the SCAQMD Significance Thresholds for all pollutants except NOx and ROG which are identified as significant and unavoidable.

A dispersion modeling analysis (THRESHOLD AQ-3 on page 3.3-47 of the RDEIR and THRESHOLD AQ-4 on page 3.3-52 of the RDEIR) of the local pollutant concentrations as a result of construction activities and haul truck and onsite equipment operations found that the project impacts would be less than the SCAQMD Significance Thresholds for all pollutants including NOx and $PM_{2.5}$ (with inclusion of MM AQ-1 through AQ-18). Notably, the SCAQMD Significance Thresholds for local pollutant concentrations are health-based and tied to the California Ambient Air Quality Standards.

A health risk assessment (THRESHOLD AQ-5 on page 3.3-55 of the RDEIR) found that impacts of air toxics such as diesel particulate matter from construction activities and haul truck and onsite equipment operations would be less than the SCAQMD Significance Thresholds (with inclusion of MM AQ-1 through AQ-18).

THRESHOLD AQ-6 (page 3.3-58 of the RDEIR) provides for On-site Management Plans, compliance with SCAQMD Rule 410 requirements and MM AQ-19 through AQ-21 to further assure that there will be less than significant impacts from the odor emissions from the Project.

Lastly, THRESHOLD AQ-7 (page 3.3-66 of the RDEIR) provides for MM AQ-22 to reduce GHG emission impacts to less than the SCAQMD Significance Thresholds.

Response 32-2: See Response to Comment 32-1.

Response 32-3: Comment noted.

Response 32-4: Comment noted.

The City appreciates your participation in the public review process.

Comment Letter 33

Paula Kelly
5050 North Irwindale Ave
Irwindale, CA 91706

We oppose the MRF/TS project because of

Our water quality
Air quality
Noise from trucks etc.
Traffic generation

We have 5 schools near the project - Margaret Heath - Holland - Santa Fe - in particular

We have hundreds of resident adjacent to the project property -

Jim and Bette Lowe
14122 Chiloal St
B.P. Ca 91706
626-337-4043

Former Mayor of Baldwin Park

1

Response to Comment Letter 33

Response 33-1: The City acknowledges this commenter opposes the Proposed Project. Comment noted. All comments will be taken into consideration in the decision-making process for this proposed project.

The City appreciates your participation in the public review process.

Comment Letter 34

Aug. 28, 2014

Paul Lin
5122 N. Wimmer Ave.,
Baldwin Park, CA 91706

City of Irwindale
5050 N. Irwindale Ave.,
Irwindale, CA 91706

Re: Disagree to the proposed Materials Recovery Facility and Transfer Station Project near by City of Baldwin Park

To City of Irwindale:

After studied and researched regarding the influence of the Materials Recovery Facility and Transfer Station Project. I discovered several points can not be and impossible succeeded by the Facility and the City of Irwindale. The following points should be considered by the City and the residents and can never be resolved by any kind of protective improvement. 1

1. **Air Pollution, Smell condition**---will severe destroy people' health. MRF never control air & smell issue for the other facilities. So no credit to let us believe they can do well. A facility of Athens Waste Services at Valley Blvd. City of La Puente area is a very bad example. Bad smell is all around the area. Especially when raining day and hot day.
2. **Environment**---vision violent along with air and smell problem. 2
3. **Traffic**---605 & Arrow Hwy already very busy how to afford the big quantity traffic come in the same area every day? 3
4. **Image**---nobody will feel comfortable if this kind facility is your neighbor. And you? 4
5. **Quality of Community**---total community quality will be affected strongly. 5
6. **Property Value**---will drop deeply and this kind loss the City of Irwindale & the Facility Company will hold the big responsibility. 6

Lots of points must be concerned especially the residents health & safety, future & benefit. The City of Irwindale and the Facility Company can not be so selfish just for the reason of saving money and making profit for your own and sacrifice the people live in the City of Irwindale & Baldwin Park . 7

To avoid a lot of arguments and **law suits** in the future my **suggestion** to the City of Irwindale and the Facility Company is:

(1) Build the facility in the area where nobody lives around (Non-Residential area).
(2) Always care about Human's & People's Right. Just very simple think about **if you are the residence of the neighborhood how do you feel**.

I strongly believe after you do this adjustment you will really success in the future. Nobody will against you. Your kind attention will be highly appreciated.

Sincerely yours

8-28-14

C&R-570

Response to Comment Letter 34

The City acknowledges the commenter is in opposition to the proposed project. All comments will be taken into consideration in the decision-making process for this proposed project.

Response 34-1: Comment noted. See Response to Comment 32-1.

Response 34-2: Comment noted.

Response 34-3: Comment noted.

Response 34-4: Comment noted.

Response 34-5: Comment noted.

Response 34-6: Comment noted.

Response 34-7: The City acknowledges that the commenter opposes the location of the proposed project.

The City appreciates your participation in the public review process.

-----Original Message-----
From: rraul24@yahoo.com [mailto:rraul24@yahoo.com]
Sent: Fri 8/29/2014 10:56 AM
To: Paula Kelly
Cc: raul rodriguez
Subject: Comment About Project MRF/TS

I think that we already have the company of Allen Co. and that we already have enough trash and many trucks doing all kinds of noises. I think that we do not need more contamination in our city. You would do us a grand favor to take the project to some other place far away from our city. Thank you for considering the comments of all residents of Baldwin Park. 1

RAUL NAVARRO

5137 WIMMER AVE.

BALDWIN PARK, CA 91706

Sent from Windows Mail

ATTN; PAULA KELLY SENIOR PLANNER.

COMENTARI ACERCA DE EL PROYECTO MRF/TS DE IRWINDALE

Creo que deve considerer qua ya tenemos la compania de recycaje Allen co. y que ya tenemos sufisiente basura y muchos camiones aciendo todo tipo de ruidos, creo que no necesitamos mas contaminacion en nuestra ciudad, nos haria un gran favor al llevase esta proyecto a Algun otro lugar mas lejos de nuestra ciudad. Gracias por considerar el comentario de los recidentes de BALDWIN PARK Attentamente

2

RAUL NAVARRO

5137 WIMMER AVE.

BALDWIN PARK, CA. 91706

(English Translation of original Spanish version)

ATTN: Paula Kelly, Senior Planner

Comments regarding the MRF/TS project of Irwindale

I believe you need to consider that we already have the Allen recycling company and that we have sufficient trash and many trucks making all sorts of noise. I believe we don't need any more contamination in our city. You would do us a grand favor taking this project to another place further from our city. Thank you for considering the comments of the residents of Baldwin Park. Attentively,

2 con't

Raul Navarro

5137 Wimmer Ave.

Baldwin Park, CA 91706

Response to Comment Letter 35

Response 35-1: The City acknowledges that the commenter opposes the proposed project. Comment noted. All comments will be taken into consideration in the decision-making process for this proposed project.

The City appreciates your participation in the public review process.

Comment Letter 36

Paula Kelly

From: Gerry Sigala [gerrysigala@yahoo.com]
Sent: Wednesday, August 13, 2014 11:57 AM
To: Paula Kelly
Subject: Project: Irwindale Materials Recovery Facility and Transfer Station Project

Hello Paula,

My name is Gerry Sigala. I'm a resident near the Arrow Hwy and Live Oak Ave intersection for over 28 years. I've seen many people, businesses and buildings come and go over my years. However, seeing a project of this magnitude and type is my first. As a community leader and a fellow neighbor, this project will have a significant negative impact to our homes (value & appearance), way of living (traffic & outdoor odors) and, more importantly, personal health (chemical/waste release to the open air for nearby residents to breathe/live around). I will NOT allow this to happen. I will be one of the many voices around this area protecting the community of such harm. 1

I am strongly against this project. I will communicate this message (again) to the many residents that share the same concerns I do.

I look forward to further details surrounding this project.

C&R-506

Best,

Gerry Sigala

Response to Comment Letter 36

Response 36-1: The City acknowledges that the commenter opposes the proposed project. Comment noted. All comments will be taken into consideration in the decision-making process for this proposed project.

The City appreciates your participation in the public review process.

Paula Kelly

From: joanne arango [soulphantom_1@hotmail.com]
Sent: Monday, August 11, 2014 8:14 PM
To: Paula Kelly
Subject: Athens Services- mrf/ts facility-Do not build it near us!

Comment Letter 37

To whom it may concern;

We got your notice in the mail regarding the company Athena Services wanting to build their "waste collection" or MRF/TS facility near our town's water supply/the Santa fe damn/ and less then 1 ½ miles from homes and schools. This is not the correct place to have this, if this was the case why not build this near the city of Irwindale's water supply, homes and schools? This will cause more issues then it would service. If this space is to be used open it for business to use, make it a meter parking lot to be used who take walks at the Santa fe damn, or even Build a center for the youth in the near by cities? This MRF/TS Facility needs to be build else where in the City . Not near our homes and water supply. Is your city going to pay for the health effects that might possibly cause? Being a Recycling center there is possibly that there can be chemical run off when cleaning/maintenance is done. 1

C&R-578

Arango Family
14314 Gates st
Baldwin park ca 91706

Response to Comment Letter 37

Response 37-1: The City acknowledges the commenter opposes the proposed project. All comments will be taken into consideration in the decision-making process for this proposed project.

The City appreciates your participation in the public review process.

Comment Letter 38

RMM

REMY | MOOSE | MANLEY LLP

Andrea K. Leisy
aleisy@rmmenvirolaw.com

April 3, 2015

VIA ELECTRONIC & REGULAR MAIL
Paula Kelly
Senior Planner
City of Irwindale Planning Department
5050 North Irwindale Avenue
Irwindale, CA 91706
paulakelly@ci.irwindale.ca.us

Re: Additional Comments on MRF/TS Project (SCH No. 2013051029) Re: Cumulative Traffic Analysis & Recent Case Law Relating to GHG Analysis for the Recirculated Draft EIR

Dear Ms. Kelly:

We submit this letter on behalf of our clients: (i) Azusa Land Reclamation, Inc. (ALRI); and (ii) USA Waste of California, Inc. (doing business as Nu-way Arrow Reclamation, Inc.) (collectively referred to as "Waste"), for your consideration in the EIR being prepared by the City of Irwindale (City) for the proposed Irwindale Materials Recovery Facility and Transfer Station Project (MRF/TS or Project).

As the City may be aware, two recent published cases bear on the Recirculated Draft EIR's analysis: *Center for Biological Diversity, et al. v. California Department of Fish and Wildlife* (2014) 224 Cal.App.4th 1105 (review granted July 9, 2014, S217763) and *Sierra Club v. County of San Diego* (2014) 231 Cal.App.4th 1152.

This letter also provides additional comments on the Recirculated Draft EIR's cumulative traffic impact analysis in light of the City's current review of the proposed Irwindale Regional Shopping Center, which would be located across the freeway and in near proximity to the MRF/TS. (See Attachment A, Shopping Center DEIR, pp. 2-17, 2-19, 3-1.)

A. The City should consider *Center for Biological Diversity, et al. v. California Department of Fish and Wildlife* and *Sierra Club v. County of San Diego* in its preparation of the Project's EIR.

Since the time we submitted our September 22, 2014 letter on the Recirculated Draft EIR, the appellate courts have published two decisions implicating an agency's environmental analysis of a project under the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.).

1

The first relevant case from the Second District Court of Appeal is *Center for Biological Diversity, et al. v. California Department of Fish and Wildlife*. The relevant issue in that case is whether a public agency may utilize a "Business as Usual" (BAU) approach when considering a project's contribution of greenhouse gas emissions (GHG), or whether public agencies must use the existing baseline (no GHG emissions from a project), from which to consider whether a project will result in significant adverse GHG related impacts. The Supreme Court has granted review of this issue. We therefore recommend that the City consider including a dual-pronged approach to its consideration of GHG impacts from construction and operation of the Project. In light of the current uncertainty in the law, we recommend the City analyze GHG impacts by looking at (1) the project's impacts against an existing conditions baseline *and* (2) the project's impacts in comparison with a BAU approach. 1 cont.

The second relevant case is the Fourth District Court of Appeal's decision in *Sierra Club v. County of San Diego*. That case instructs that an EIR must include specific, enforceable mitigation measures that would achieve reductions in GHG emissions. (*Sierra Club, supra,* 231 Cal.App.4th at pp. 1167-1170.) The general plan update at issue in *Sierra Club v. County of San Diego* also did not comply with Executive Order No. S–3–05 (requiring emissions reduction through 2050) and would thus have significant impacts that had not been addressed.

As we noted in our earlier comment letters on the EIR, the City's analysis fails to include adequate GHG mitigation measures. For example, mitigation measure AQ-22 remains inadequate because it fails to identify the adopted credit offset program from which the applicant must acquire the offsets, does not include an "annual" due date or who will enforce the measure. The Recirculated Draft EIR also fails to explain how the offsets would ensure actual reductions in GHG emissions. Similarly, mitigation measure AQ-24 fails to specify when and how compliance with Title 24 and CAPCOA's GHG Registry shall be assured. Considering the import of the *Sierra Club v. County of San Diego* decision, we ask the City revisit the Project's GHG analysis and also consider whether the Project complies with Executive Order No. S–3–05. 2

B. The Recirculated Draft EIR must adequately consider the proposed Irwindale Regional Shopping Center in the cumulative Traffic and Air impacts analysis. 3

The City is currently performing environmental review of the proposed Irwindale Regional Shopping Center, to be located at 500 Speedway Drive.[1] Although the Recirculated Draft EIR includes the proposed shopping center project in the cumulative projects list (Recirculated DEIR, p. 3.0-6), neither the EIR's traffic chapter nor the Traffic Impact Assessment appears to have actually considered the proposed shopping center in its calculation of related traffic impacts. The City cannot shirk its duties to

[1]/ The City released the draft EIR for the shopping center project in July 2014 and final EIR in early March 2015.

consider all reasonably foreseeable cumulative impacts in the Project's EIR. (*Mountain Lion Coalition v. Fish & Game Com.* (1989) 214 Cal.App.3d 1043, 1051 ["A cumulative impact analysis which understates information concerning the severity and significance of cumulative impacts impedes meaningful public discussion and skews the decisionmaker's perspective concerning the environmental consequences of the project, the necessity for mitigation measures, and the appropriateness of project approval"].) 3 cont.

The proposed Irwindale Regional Shopping Center is not an insignificant project. The City considers the proposed shopping center project as having "statewide, regional or area-wide significance" under CEQA Guidelines, section 15206, subdivision (b). (Attachment A, Shopping Center DEIR, pp. 2-4 to 2-5 [discussion of regionally significant projects].)

The proposed shopping center will add a substantial amount of traffic to the City's roadway network, generating approximately "469 net new a.m. peak hour trips, 778 net new p.m. peak hour trips, 1,272 net new Saturday peak hour trips, and 17,788 net new weekday daily trips." (Attachment A, Shopping Center DEIR, p. 4.7-24.) On both Saturday and Sunday, the shopping center project is expected to generate a total of 27,408 daily trips. (Attachment A, Shopping Center DEIR, pp. 4.1-18, 6-14.)

Important to the MRF/TS's environmental analysis is the fact that the proposed shopping center's vehicle trips would occur on Interstate 605 (I-605) and Live Oak Avenue, among other city streets. I-605 and Live Oak Avenue will also be used by vehicles accessing the MRF/TS. (Recirculated DEIR, Appendix G, pp. 25, 27-33 [project access and trip distribution discussion]; Attachment A, Shopping Center DEIR, pp. 4.7-23 to 4.7-24.) But the Recirculated Draft EIR does not appear to accurately characterize the proposed shopping center project and does not appear to include that project in its cumulative traffic analysis.

The Recirculated Draft EIR characterizes the proposed Irwindale Regional Shopping Center as a 650,000 square-foot "outlet mall." (Recirculated DEIR, p. 3.0-6.) In fact, that project will be 700,000 square feet on 63.5 acres – 50,000 square feet larger than listed in the Recirculated Draft EIR. (Attachment A, Shopping Center DEIR, p. 3-12.) 4

The proposed "outlet mall" will also include more land uses than simply retail uses which would likely generate more traffic. The shopping center project also proposes "ancillary amenities including a central plaza for public gatherings, entryway features, an outdoor entertainment/performance area, and a food court." (Attachment A, Shopping Center DEIR, p. 3-12.) How many people would be expected to attend an outdoor performance? How and where were these special events included in the cumulative traffic analysis? As noted above, all of these additional uses will attract a significant number of patrons and vehicle trips, none of which appear to be factored into the cumulative traffic analysis for the MRF/TS. 5

The Recirculated Draft EIR states that "trip distributions for each of the cumulative development projects are included as Appendix H within Appendix G of the EIR." (Recirculated DEIR, p. 3.12-44.) Appendix G is the Traffic Impact Assessment. Appendix G, however, does not appear to consider the proposed shopping center and its anticipated vehicle trips in Recirculated Draft EIR's cumulative traffic analysis. (Recirculated DEIR, Appendix G, pp. 73, 77, 79-83, H-1 to H-9 [discussion of cumulative projects].) The only shopping center in the Traffic Impact Assessment's cumulative projects list for the MRF/TS appears to be the Westfield Mall expansion. (Recirculated DEIR, Appendix G, p. 80.) 6

Nor can the traffic assumptions for the proposed Irwindale Regional Shopping Center be found in the Recirculated Draft EIR itself. For the Interim Year 2016 and Long Range Year 2035[2] With and Without Project scenarios, the Recirculated Draft EIR concludes that the MRF/TS would result in less-than-significant impacts (with mitigation in some scenarios) to the I-605/Live Oak Avenue intersection (southbound and northbound on- and off-ramps) and Arrow Highway/Live Oak intersection. (Recirculated DEIR, pp. 4.7-73 to 4.7-80.)

The EIR's discussion of freeway mainlines and ramps also shows that impacts to I-605 will be less than significant. (Recirculated DEIR, pp. 3.12-81 to 3.12-91.) Because the Recirculated Draft EIR appears to ignore the shopping center's expected vehicle trips in its modeling assumptions, the EIR understates the cumulative traffic impacts at these relevant (605/Live Oak Avenue and Arrow Highway/Live Oak) intersections, junctions, and ramps which may need to be reanalyzed. If that is the case, it is also not clear whether the traffic mitigation measures would be adequate to mitigate the cumulative traffic impacts to less than significant. Please explain. 7

Finally, we note that the Recirculated Draft EIR's discussion of cumulative traffic impacts states that the MRF/TS is expected to contribute significant and unavoidable cumulative impacts to existing or projected deficiencies to the freeway merge/diverge ramp junction of I-605 Northbound – Off-Ramp at Live Oak Avenue, among other junctions. (Recirculated DEIR, p. 3.12-103.) Despite that conclusion, the Recirculated Draft EIR still does not appear to have considered the proposed Regional Shopping Center as part of the cumulative scenario. Moreover, to the extent that the shopping center also impacts the air quality and GHG cumulative impacts analyses, the City should also include an updated discussion considering the proposed shopping center project. 8 9

[2]/ The Recirculated Draft EIR traffic scenarios for the Interim Year (2016) and Long Range Year (2035) include consideration of cumulative projects. (Recirculated DEIR, Appendix G, pp. 73, 77-83, 93.)

Thank you in advance for your consideration of our comments. For your convenience, we have attached the relevant excerpts of the Regional Shopping Center EIR, and a copy of the *Sierra Club v. County of San Diego* decision (see Attachment B).

Very truly yours,

Andrea K. Leisy

Encl.
cc: Ms. Laura Nieto, City Clerk (lnieto@ci.irwindale.ca.us)
Fred Galante (fgalante@awattorneys.com)

Attachment A

DRAFT ENVIRONMENTAL IMPACT REPORT

STATE CLEARINGHOUSE NO. 2014071042

IRWINDALE REGIONAL SHOPPING CENTER
CITY OF IRWINDALE
LOS ANGELES COUNTY, CALIFORNIA

LSA

December 22, 2014

proposed on 63.5 acres by the Lindom Company, as well as infrastructure improvements associated with the proposed project. As permitted under the *CEQA Guidelines* (Section 15084[d-e]), consultant LSA Associates, Inc. (LSA) has prepared the EIR under the direction of professional City planning staff. However, prior to certification, the Planning Commission and the City Council must independently review the methodologies used, and conclusions reached in the EIR. The City is undertaking an independent review of this EIR by having City planning staff work with LSA on the EIR. If certified by the City, the information included in and the conclusions reached in the EIR will therefore represent the City's independent judgment.

This EIR has been prepared utilizing information from City planning and environmental documents, technical studies prepared by LSA, applicant-provided technical studies, and other publicly-available data. Alternatives to the proposed project are also discussed and mitigation measures that would offset, minimize, or otherwise avoid significant environmental impacts from the proposed project have been identified. This EIR has been prepared in accordance with CEQA, California Public Resources Code §21000 *et seq.*; the *Guidelines for California Environmental Quality Act* (California Code of Regulations, Title 14, Chapter 3); and the rules, regulations, and procedures for implementing CEQA as adopted by the City. The objective of the EIR is to inform City decision-makers, representatives of other affected/responsible agencies, the public, and other interested parties of the potential environmental consequences that may be associated with the approval and implementation of the proposed project.

2.3 REGIONALLY SIGNIFICANT PROJECT

When an EIR is prepared for any project that is considered to be of statewide, regional, or area-wide significance, as defined by *CEQA Guidelines* Section 15206, then the Draft EIR must be submitted to the State Clearinghouse and the appropriate metropolitan area council of governments for review and comment. A project is considered to be of statewide, regional, or area-wide significance if it meets any of the following criteria:

(1) A proposed local general plan, element, or amendment thereof for which an EIR was prepared.

(2) A project has the potential for causing significant effects on the environment extending beyond the city or county in which the project would be located. Projects of this nature would include:

  (a) A proposed residential development of more than 500 dwelling units.

  (b) A proposed shopping center or business establishment employing more than 1,000 persons or encompassing more than 500,000 square feet of floor space.

  (c) A proposed commercial office building employing more than 1,000 persons or encompassing more than 250,000 square feet of floor space.

  (d) A proposed hotel/motel development of more than 500 rooms.

  (e) A proposed industrial, manufacturing, processing plant, or industrial park planned to employ more than 1,000 persons, occupying more than 40 acres of land, or encompassing more than 650,000 square feet of floor area.

(3) A project which would result in cancellation of an open space contract made pursuant the California Land Conservation Act of 1965 (Williamson Act) for any parcel of 100 or more acres.

(4) A project for which an EIR has been prepared that is located in and would substantially affect areas of critical environmental sensitivity.

(5) A project which would substantially affect sensitive wildlife habitats and habitats for endangered, rare, or threatened species.

(6) A project that would interfere with the attainment of regional water quality control standards as stated in the approved area-wide waste treatment management plan.

(7) A project that would provide housing, jobs, or occupancy for 500 or more persons within 10 miles of a nuclear power plant.

The Irwindale Regional Shopping Center, as proposed, would be considered a "project of statewide, regional or area-wide significance" per criteria 2(b) in that it consists of a shopping center anticipated to employ more than 1,000 persons and would encompass more than 500,000 square feet of floor space. Therefore, the NOP was and the Draft EIR and NOC will be transmitted to the State Clearinghouse and the appropriate metropolitan area council of governments, which in this case is the Southern California Association of Governments (SCAG), for review and comment.

2.4 INCORPORATED DOCUMENTS

CEQA (§15150) permits the incorporation by reference of all or portions of other documents that are generally available to the public. Any document incorporated by reference shall be made available to the public for inspection at a public place or public building and requires that the EIR state where the incorporated documents will be made available for public inspection. The following documents have been incorporated by reference:

- City of Irwindale General Plan Update, adopted June 2008.
- City of Irwindale Zoning Map, last updated 1988.
- *City of Irwindale Commercial and Industrial Design Guidelines*, January 14, 2009.
- City of Irwindale Municipal Code (various chapters), approved through Ordinance 661 and last updated March 2013.
- City of Irwindale. Irwindale Materials Recovery Facility and Transfer Station Recirculated Draft EIR. July 2014.

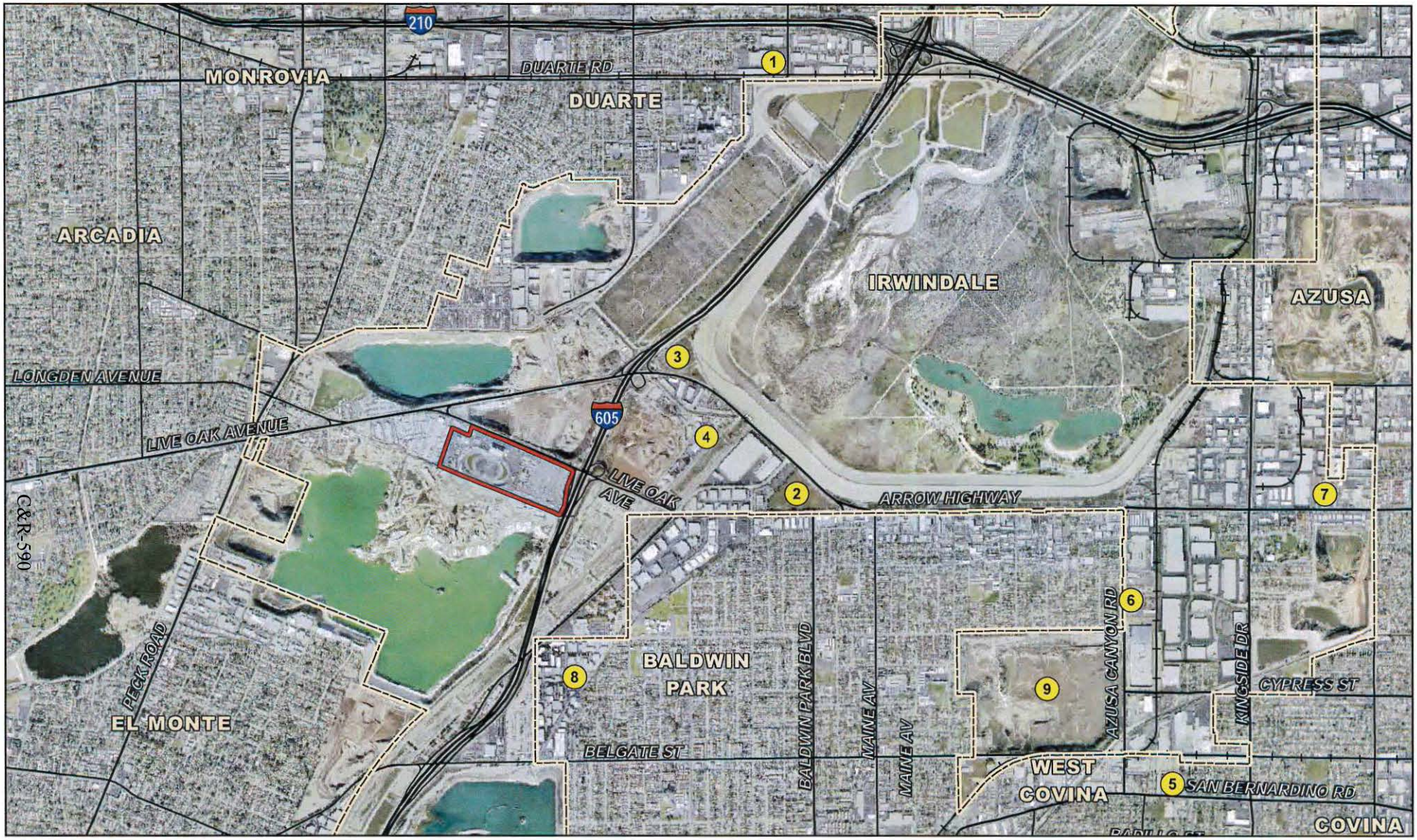
2.5 TECHNICAL REPORTS

Various technical or project-related reports have been prepared to assess specific issues that may result from the construction and operation of the proposed project. As relevant, information from the following documents and technical reports has been integrated into the EIR as appendices.

- Air Quality and Greenhouse Gas Assessment for the Irwindale Regional Shopping Center, LSA Associates, Inc. October 2014 (EIR Appendix B).
- Preliminary Geotechnical Engineering Report, Subsurface Characterization and Preliminary Settlement, Proposed Irwindale Outlet Center, Shannon & Wilson, Inc., May 20, 2014 (EIR Appendix C-1).
- Preliminary Geotechnical Review Proposed Irwindale Speedway, Shannon & Wilson, Inc., May 8, 2013 (EIR Appendix C-2).
- Phase I Environmental Site Assessment, 500 Speedway Drive, Irwindale, CA, S & S Commercial Environmental Services, August 28, 2013 (EIR Appendix D).
- Preliminary Standard Urban Stormwater Mitigation Plan, Irwindale International Retail Outlet, JR Miller & Associates, Inc., November 25, 2014 (EIR Appendix E-1).
- Storm Water Hydrology Report, International Outlet Center, JR Miller & Associates, Inc., November 24, 2014 (EIR Appendix E-2).
- Noise Impact Analysis, LSA Associates, Inc., August 2014 (EIR Appendix F).
- Traffic Impact Assessment for the Irwindale Regional Shopping Center, LSA Associates, Inc., November 2014 (EIR Appendix G).

Table 2.B: Cumulative Projects List

Map No.[1]	Address or Location	City	Land Use	Size	Status	Total ADT [2]
1	NWC Highland Ave/Duarte Rd.	Duarte	Transit Oriented Development (Gold Line Light Rail Station)	Mixed Use	Approved under construction.	7,259
2	NWC Live Oak Ave/Arrow Hwy	Irwindale	Irwindale Materials Recovery Facility and Transfer Station	• Total Project Building Size – approx. 322,972 SF • Materials Recovery Facility – 31,834 SF • Materials Recovery Facility Expansion – 31,834 SF • Transfer Station – 54,610 SF • Transfer Station Expansion – 21,070 SF • Transfer Loadout Area – 13,680 SF • Ramp and Tarping Enclosure – 10,418 SF • Employee Facility / Operations – 2,948 SF • Self Haul / C+D / Green Waste – 69,747 SF • Self Haul / C+D / Green Waste Expansion – 64,150 SF • Maintenance Building and Mezzanine – 5,352 SF • Wash Bay Canopy – 1,680 SF • Scale House – 72 SF • Administration and Visitor Facility – 9,488 SF • Education Center – 2,813 SF Convenience Store – 3,276 SF • Maximum Daily Tonnage – 6,000 tons • Employee Capacity – 323 employees	Draft EIR pending public review.	16,666
3	NEC Arrow Hwy/I-605	Irwindale	KARE Youth League/ Santa Fe Dam Sports Park - Recreation	17 acres - Development of a youth sports park to be constructed over a ten-year period. Multiple baseball fields, basketball courts, and soccer fields, all with grandstand seating. Restrooms, Administrative/Retail Building, and Club room/Office building.	Grading permit issued.	710
4	13645 Live Oak Ln.	Irwindale	Commercial	29,000 SF building	Pulled from consideration.	1,202



LSA

Project Boundary

Irwindale City Boundary

Cumulative Projects

0 1,500 3,000

FEET

SOURCE: LARIAC Aerials, 2012; Thomas Bros., 2009

I:\COI1401\Reports\EIR\fig2-1_CumProject.mxd (12/3/2014)

FIGURE 2.1

Irwindale Regional Shopping Center
Environmental Impact Report

Cumulative Projects

3.0 PROJECT DESCRIPTION

The project description is provided in this section of the EIR in conformance with *CEQA Guidelines* Section 15124. It discusses the project location, project setting, City of Irwindale General Plan and zoning designations, project characteristics, project objectives, and discretionary actions required to implement the proposed project. The project description is used as the basis for analyzing the proposed project's impacts on the existing physical environment in Section 4.0 of the EIR.

3.1 PROJECT LOCATION

The project area is generally located west of Interstate 605 (I-605), south of Interstate 210 (I-210) and north of Interstate 10 (I-10) in the northwestern portion of the City of Irwindale in Los Angeles County. Figure 3.1 depicts the location of the proposed project within the region and the City of Irwindale. The project site is specifically located at the southwest corner of the I-605/Live Oak Avenue interchange approximately 750 feet east of Arrow Highway and is currently occupied by the Irwindale Event Center (aka Irwindale Speedway) with an address of 500 Speedway Drive. The project site consists of three parcels of land identified as Assessor's Parcel Numbers (APNs) 8532-004-022, 8532-004-025, and 8532-004-026 totaling approximately 63.5 acres. The project site is bordered by Live Oak Avenue and a landfill to the north, an active quarry to the south, I-605 to the east, and a trucking and distribution center to the west.

The project area is located in portions of Sections 12 of Township 1 South, Range 11 West, as depicted on the U.S. Geological Survey (USGS) 7.5-minute series *El Monte, California* quadrangle (latitude 34° 06' 35"north and longitude 117° 59' 16" west). Figure 3.2 shows an aerial photo of the project area..

3.2 PROJECT SETTING AND HISTORY

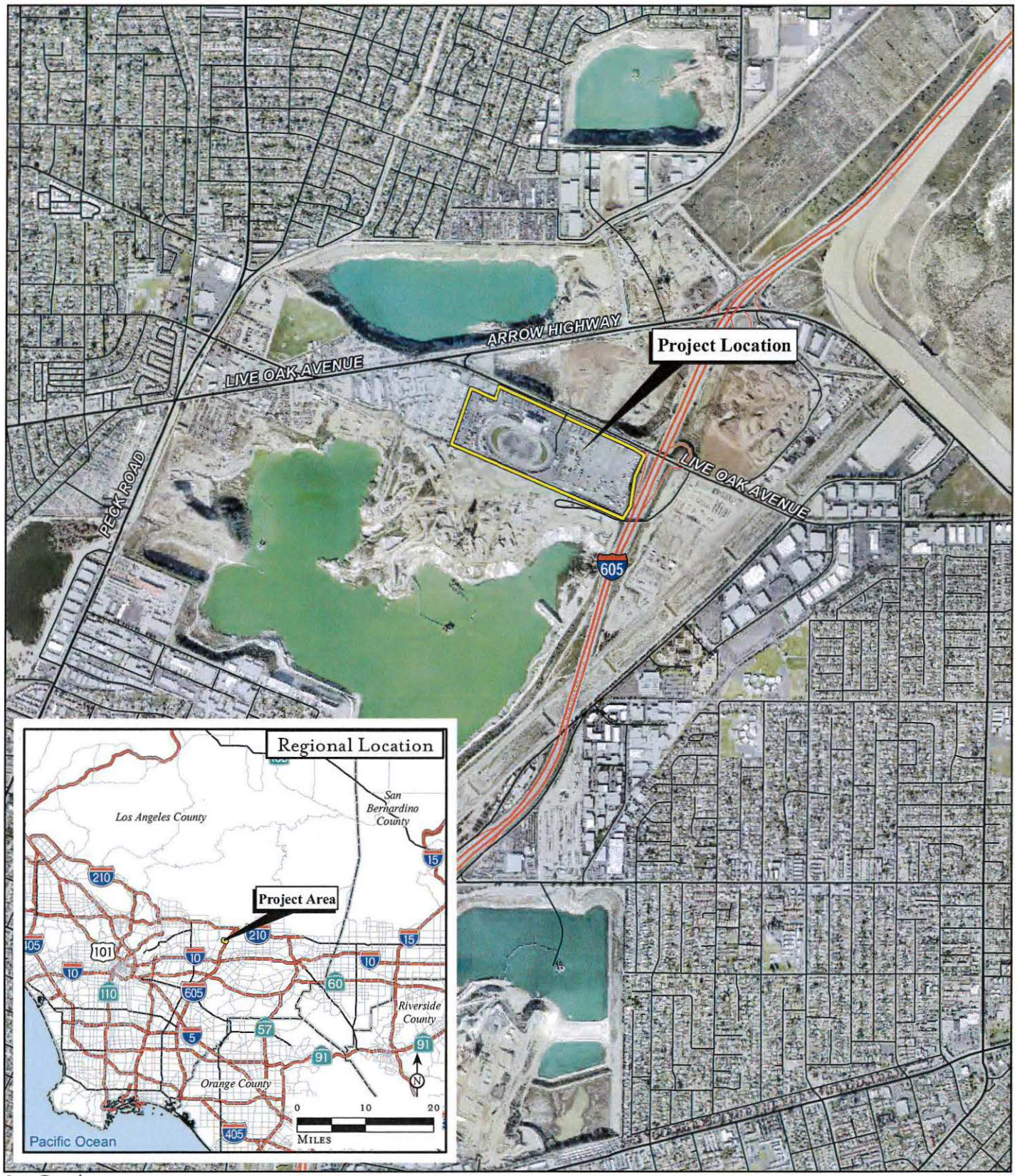
3.2.1 Project Setting

The project site is generally level and fully developed with the Irwindale Speedway. Soils within the proposed project consist primarily of Hanford Silt Loam and Tujunga Fine Sandy Loam. The soil on site has been disturbed and is unconsolidated materials with a mixture of natural soils and fill placed in various areas.

3.2.2 Existing On-site Land Uses

As indicated previously, the project site is currently developed with the Irwindale Speedway in the City of Irwindale. The project site is approximately 63.5 acres and is zoned M-2 (Heavy Manufacturing) and is relatively flat. The General Plan land use designation for the site is Commercial/Recreation. Figure 3.3 shows the existing General Plan land uses and Figure 3.4 shows the existing zoning on the project site and vicinity.

The project site consists entirely of urban/developed uses, which include vast human disturbance associated with the existing use. The project area includes roads, buildings and structures, pavement, and concrete. The project site is not associated with any native vegetation and provides only limited habitat value, primarily as cover, nesting, and perching opportunities for birds and common terrestrial wildlife that have adapted to urban conditions, and other disturbed areas associated with human activity.



LSA

FIGURE 3.1

Irwindale Regional Shopping Center
Environmental Impact Report

SOURCE: LARIAC, 2012; Thomas Bros., 2009

Regional and Project Location

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Table 3.A: On-site and Adjacent Land Uses and Land Use Designations

Location	Current Land Use	General Plan Land Use Designation	Zoning
On site	Speedway	Commercial/Recreation	M-2 Heavy Manufacturing
North	Landfill north of Live Oak Avenue	Regional Commercial north of Live Oak Avenue	M-2 Heavy Manufacturing/C-2 Heavy Commercial
South	Quarry	Quarry Overlay	C-2 Heavy Commercial
East	Industrial east of I-605	Industrial/Business Park east of I-605	M-2 Heavy Manufacturing east of I-605
West	Trucking Facility	Industrial/Business Park	M-2 Heavy Manufacturing

Sources: City of Irwindale General Plan Land Use Map, adopted June 2008; City of Irwindale Zoning, online data accessed July 2014.

3.4 PROJECT CHARACTERISTICS

3.4.1 Land Uses

The project site is approximately 63.5 acres in size. The proposed project includes the construction and occupancy of an approximately 700,000-square foot shopping center and associated parking. In addition to the primary function of the shopping center to provide "retail" commercial space for shopping opportunities, the project includes ancillary amenities including a central plaza for public gatherings, entryway features, an outdoor entertainment/performance area, and a food court. The proposed project will include related improvements, including, but not limited to parking, landscape planters, fencing, and walls.

Figure 3.5 illustrates the proposed conceptual site plan. Conceptual renderings showing the central entry courtyard and central plaza are shown in Figures 3.6A and 3.6B. Representative building elevations are shown in Figures 3.7A and 3.7B.

The shopping center is expected to employ approximately 5,000 people. Regular hours of operation of the shopping center are expected to be Monday through Saturday from 10 a.m. to 9 p.m. and Sundays from 10 a.m. to 7 p.m. It is anticipated that extended hours of operation will occur during holidays.

3.4.2 Access and Circulation

Access to the site would be from three driveways on Live Oak Avenue. Parking for customers and employees would exist on all sides of the proposed shopping center.

3.4.3 Major Utilities

Post-development, the project site will be divided into three drainage sub-areas. The three subareas will drain into three separate connections (see Table 4.5.C). All storm flows will be collected, treated and conveyed to the existing storm drain system in Live Oak Avenue via catch basins or trench drains. On each of the connection lines, the project proposes to install media filter devices. The filters will capture and retain sediment, oils, metals, and other targeted constituents. Curb inlets, if utilized, will also have media filters and curb guard installed. If roof drains are connected directly into the storm drain system, roof drain filters will be installed on the roof leaders. A trench drain will be constructed across the westerly driveway intercepting flows and directing the run-off into a drainage collection line. Trench drain filters will be installed in this feature. The post-development drainage pattern is discussed further in Section 4.5 and depicted in Figure 3.8.

4.1.6 Potentially Significant Impacts

4.1.6.1 Long-Term Project Operational Emissions

Impact 4.1.6.1: The proposed project would result in cumulatively considerable net increase in VOC, NO_X, and CO criteria pollutants.

Threshold	Would the proposed project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in nonattainment under an applicable Federal or State ambient air quality standard? For long-term operations, the applicable daily thresholds are: • 55 pounds of ROC/VOC; • 55 pounds of NO_X; • 550 pounds of CO; • 150 pounds of PM_{10}; • 55 pounds per day of $PM_{2.5}$.; and • 150 pounds of SO_X.

Long-term air pollutant emission impacts are those associated with stationary sources and mobile sources involving any project-related changes. The proposed project would result in net increases in both stationary- and mobile-source emissions. The stationary-source emissions would come from many sources, including the use of consumer products, landscape equipment, general energy, and solid waste. Based on trip generation factors included in the Institute of Transportation Engineers (ITE) *Trip Generation Manual, Ninth Edition,* which are also provided in the traffic study prepared for the proposed project (LSA, October 2014), the project's daily trips were entered in the CalEEMod model. Based on trip generation factors provided in the traffic impact analysis prepared for the proposed project (LSA, October 2014), the project's weekday rate of 17,788 ADT and the weekend (both Saturday and Sunday) rate of 27,408 ADT were entered in the CalEEMod model. Long-term operational emissions associated with the proposed project are shown in Table 4.1.J. Area sources include architectural coatings, consumer products, and landscaping. Energy sources include natural gas consumption for heating. Table 4.1.J shows that the emissions as a result of the proposed project operations would exceed the corresponding SCAQMD daily emission thresholds for VOC, NO_X, and CO, while emissions of SO_X, PM_{10} and $PM_{2.5}$ would all be less than the SCAQMD daily thresholds.

Table 4.1.J: Opening Year Regional Operational Emissions

Source	Pollutant Emissions (lbs/day)					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Area Sources	18	0.00072	0.077	0.00001	0.00028	0.00028
Energy Sources	0.029	0.26	0.22	0.0016	0.02	0.02
Mobile Sources	82	190	770	1.9	130	36
Total Project Emissions	**100**	**190**	**770**	**1.9**	**130**	**36**
SCAQMD Thresholds	**55**	**55**	**550**	**150**	**150**	**55**
Significant?	**Yes**	**Yes**	**Yes**	**No**	**No**	**No**

Source: LSA Associates, Inc. (November 2014).

CO = carbon monoxide
CO_2 = carbon dioxide
lbs/day = pounds per day
NO_x = nitrogen oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size
SCAQMD = South Coast Air Quality Management District
SO_x = sulfur oxides oxides
VOC = volatile organic compounds

Mitigation Measures. The following measures are considered to be feasible and effective in reducing vehicle trip generation and resulting emissions from the project.

freeway segments, and freeway ramp merge/diverge locations are evaluated for the a.m. and p.m. peak hours. The a.m. peak hour is defined as the one hour of highest traffic volumes occurring between 7:00 and 9:00 a.m. The p.m. peak hour is defined as the one hour of highest traffic volumes occurring between 4:00 and 6:00 p.m.

4.7.3.2 Traffic Analysis Study Area

The study area includes intersections where the project would add 50 or more trips during the a.m., p.m., or Saturday peak hours. The study area analyzed in this report includes the following 21 intersections.

- Peck Rd-Myrtle Ave/Live Oak Ave
- Myrtle Ave/Longden Ave
- Longden Ave/Live Oak Ave
- Arrow Hwy/Live Oak Ave (west)
- Dwy 1/Live Oak Ave
- Speedway Dr-Dwy 2/Live Oak Ave
- Dwy 3/Live Oak Ave
- I-605 SB On-Ramp/Live Oak Ave*
- I-605 NB Off-Ramp/Live Oak Ave*
- Graham Rd/Live Oak Ave
- Live Oak Ln/Live Oak Ave
- Rivergrade Rd/Live Oak Ave
- Commerce Dr/Live Oak Ave
- Stewart Ave/Live Oak Ave
- Baldwin Park/Arrow Hwy
- Arrow Hwy/Live Oak Ave (east)
- Maine Ave/Arrow Hwy
- Avenida Barbosa/Buena Vista St
- Avenida Barbosa St/Arrow Hwy
- I-605 SB Off-Ramp/Arrow Hwy*
- I-605 NB On-Ramp/Arrow Hwy*

* State (Caltrans) Facility

A freeway segment and ramp junction analysis was conducted. The analysis addresses the Caltrans NOP comments, dated July 18, 2014; and is in accordance with the Los Angeles County Metropolitan Transportation Authority "2010 Congestion Management Project" (CMP). The study area includes freeway locations where the project would add 150 or more trips during the a.m., p.m., or Saturday peak hours. The following freeway segments and ramp junctions were analyzed:

I-605 Northbound:

1. North of Arrow Highway;
2. Arrow Highway Slip On-Ramp;
3. Arrow Highway Loop On-Ramp to Arrow Highway Slip On-Ramp;
4. Arrow Highway Loop On-Ramp;
5. Live Oak Avenue Off-Ramp to Arrow Highway Loop On-Ramp;
6. Live Oak Avenue Off-Ramp; and
7. South of Live Oak Avenue.

I-605 Southbound

8. North of Arrow Highway;
9. Arrow Highway Slip Off-Ramp;
10. Arrow Highway Slip Off-Ramp to Live Oak Avenue Slip On-Ramp;
11. Live Oak Canyon On-Ramp; and
12. South of Arrow Highway.

4.7.3.3 Future Traffic Volume Methodology

Construction of the entire project would be completed by the year 2018. To develop the future baseline conditions, a growth rate of 2 percent per year was added to the existing traffic volumes, which is consistent with the City of Irwindale's Policy Guidelines for Traffic Impact Reports (August 2004).

Because growth on freeways is generally dependent on characteristics of the entire region, growth forecasts from the 2010 CMP were used to develop future baseline conditions on freeway segments. Based on the 2015–2020 growth factors contained in the CMP, a 0.4 percent per annum growth was applied to existing without project traffic volumes to develop future baseline without project conditions. Conservation of flow at study area freeway segments was maintained using volumes at Arrow Highway and Live Oak Canyon Road under future baseline conditions.

Traffic volumes for other committed and/or approved (cumulative) developments were added to the future baseline traffic volumes. LSA contacted all cities within a 5-mile radius of the project to obtain a list of cumulative projects. Cumulative project trips were added to future baseline conditions traffic volumes for freeway mainlines.

4.7.3.4 Trip Generation, Distribution and Assignment

Trip generation for the proposed project was developed using trip rates for Land Use 823 "Factory Outlet Center" as contained in the Institute of Traffic Engineers (ITE) Trip Generation, 9th Edition. The trip generation also includes applicable adjustments for pass-by and diverted-linked trips using rates for Land Use 820 "Shopping Center." Diverted linked trips are those trips already traveling on I-605, who are diverted from the freeway to patronize the project. Pass-by trips are those trips already traveling on Live Oak Avenue who would then stop at the project. Table 4.7.J (Table Q in the TIA) summarizes the a.m., p.m., and Saturday peak hour and daily project trip generation. As shown in Table 4.7.J, the project is expected to generate a total of 469 net new a.m. peak hour trips, 778 net new p.m. peak hour trips, 1,272 net new Saturday peak hour trips, and 17,788 net new weekday daily trips.

Traffic volumes at the project driveways were collected during a typical Thursday on June 26, 2014. The Thursday Night Thunder drag racing event was scheduled for the evening of the counts. Events at the speedway are held two to three nights per week and during some seasons, there is only one event per week. On a typical weekday and Saturday, the existing land use generated nominal trips during the peak hours. Therefore, no trip credit from the existing use was applied to the net trip generation of the proposed project.

Trip distribution for the proposed project was developed based on generalized trip distribution factors contained in the 2010 CMP, discussion with City staff, and the location of the project in relation to the surrounding roadway network and land uses. The CMP generalized trip distribution factors are based on the regional travel demand model and reflect work and non-work trip interactions broken down to the Regional Statistical Area (RSA) level. The generalized trip distribution factors where then used to develop the trip assignments at the study area intersections and freeway locations.

4.7.4 Thresholds of Significance

It was concluded that the proposed project could create potentially significant traffic impacts associated with the following CEQA traffic impact thresholds of significance if it would: *Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections).*

Table 4.7.J - Project Trip Generation

Land Use	Units	A.M. Peak Hour In	A.M. Peak Hour Out	A.M. Peak Hour Total	P.M. Peak Hour In	P.M. Peak Hour Out	P.M. Peak Hour Total	Saturday Peak Hour In	Saturday Peak Hour Out	Saturday Peak Hour Total	Daily
Factory Outlet Center[2]	700 TSF[1]										
Trips/Unit		*0.49*	*0.18*	*0.67*	*1.08*	*1.21*	*2.29*	*1.93*	*1.86*	*3.79*	*26.59*
Gross Trip Generation		342	127	469	753	850	1,603	1,353	1,300	2,653	18,613
Pass-By Trips[3]	(34% P.M., 26% Saturday)	0	0	0	(273)	(273)	(545)	(345)	(345)	(690)	(545)
Diverted Linked Trips[4]	(26.4% P.M., 35.2% Saturday)	0	0	0	(140)	(140)	(280)	(345)	(345)	(691)	(280)
Total Net New Trips		**342**	**127**	**469**	**341**	**438**	**778**	**663**	**610**	**1,272**	**17,788**

Notes:

[1] TSF = Thousand Square Feet

[2] Trip generation based on rates for Land Use 823 - "Factory Outlet Center" from ITE *Trip Generation* (9th Edition).

[3] Pass-by rates based on rates for Land Use 820 - "Shopping Center" from ITE Trip Generation Handbook (9th Edition). Since there is no data available on a.m. and daily pass-by trips, no reduction has been taken for the a.m. The p.m. pass-by rates have been applied to the daily traffic.

[4] Diverted Linked Trips are based on rates for Land Use 820 - "Shopping Center" from ITE Trip Generation Handbook (9th Edition). Since there is no data available for a.m. and daily diverted linked trips, no reduction has been taken for the a.m. The p.m. diverted link rate has been applied to the daily traffic.

4.7.5.3 Inadequate Emergency Access

Threshold	Would the proposed project result in inadequate emergency access?

The developer of the proposed project would be required to design, construct, and maintain structures, roadways, and facilities to provide for adequate emergency access and evacuation. Construction activities, which may temporarily restrict vehicular traffic, would be required to implement measures to facilitate the passage of persons and vehicles through/around any required road closures. The proposed project design would be submitted to and approved by the City's Fire and Police Departments prior the issuance of building permits and a Construction Traffic Mitigation Plan would be prepared and implemented with each phase of project development. Adherence to applicable existing requirements of the City of Irwindale and other agencies would reduce impacts associated with this issue to a less than significant level and no mitigation is required.

4.7.5.4 Existing Conditions (2014) With Project Freeway LOS Impacts

Threshold:	Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system?
Threshold:	Exceed, either individually or cumulatively, the City's LOS D criteria at all study area intersections.

The project would add traffic volumes to regional freeways under Existing Plus Project conditions. Previously referenced Tables 4.7.H and 4.7.I summarize the results of the existing with project a.m. and p.m. peak hour LOS analysis for all study area freeway segments and ramps utilizing the HCM methodology, for weekdays and weekends respectively. As shown in Tables 4.7.H and 4.7.I, all study area freeway segments and ramps are projected to operate at satisfactory LOS resulting in a less than significant impact and no mitigation is required.

4.7.5.5 Future Baseline Plus Cumulative Projects With Project Freeway LOS Impacts

Threshold:	Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system?
Threshold:	Exceed, either individually or cumulatively, the City's LOS D criteria at all study area intersections.

The project would add traffic volumes to regional freeways under Future Baseline Plus Cumulative Projects With Project conditions. Tables 4.7.K and 4.7.L (Tables FF and GG in the TIA) summarize the results of the cumulative with project a.m. and p.m. peak hour LOS analysis for all study area freeway segments and ramps utilizing the HCM methodology, for weekdays and weekends respectively. As shown in Tables 4.7.K and 4.7.L, all study area freeway segments and ramps are projected to operate at satisfactory LOS resulting in a less than significan impact and no mitigation is required.

4.7.6 Potentially Significant Impacts

4.7.6.1 Existing Conditions (2014) With Project Intersection LOS Impacts

Impact 4.7.6.1: *The project may result in significant project direct traffic impacts to local intersections based on analysis of Existing Plus Project Intersection LOS.*

Table 4.7.K - Future Baseline Plus Cumulative Projects Segment and Ramp Junction Levels of Service Analysis

I-605 Freeway	Type	Mainline Lanes	Without Project								With Project							
			AM Peak Hour				PM Peak Hour				AM Peak Hour				PM Peak Hour			
			PCE Vol.	Speed (m/hr)	Density (pc/m/ln)	LOS	PCE Vol.	Speed (m/hr)	Density (pc/m/ln)	LOS	PCE Vol.	Speed (m/hr)	Density (pc/m/ln)	LOS	PCE Vol.	Speed (m/hr)	Density (pc/m/ln)	LOS
Northbound																		
1 North of Arrow Highway	Basic	4	4979	70	19.3	C	4332	70	16.8	B	5026	70	19.5	C	4557	70	17.7	B
2 . Arrow Highway Slip On-Ramp	1 Lane On	4	579	61	18.1	B	417	61	16.3	B	579	61	18.2	B	417	61	16.9	B
3 . Arrow Highway Loop On-Ramp to Arrow Highway Slip On-Ramp	Basic	4	4400	70	17.1	B	3915	70	15.2	B	4447	70	17.3	B	4140	70	16.1	B
4 . Arrow Highway Loop On-Ramp	1 Lane On	4	348	61	16.4	B	128	61	14.9	B	395	61	16.6	B	353	61	15.7	B
5 . Live Oak Avenue Off-Ramp to Arrow Highway Loop On-Ramp	Basic	4	4052	70	15.7	B	3787	70	14.7	B	4052	70	15.7	B	3787	70	14.7	B
6 . Live Oak Avenue Off-Ramp	1 Lane Off	4	997	55	28.7	D	1583	54	33.1	D	1128	55	30.0	D	1744	53	34.6	D
7 . South of Live Oak Avenue	Basic	4	5049	70	19.6	C	5370	70	20.9	C	5180	70	20.1	C	5531	70	21.5	C
Southbound																		
8 . North of Arrow Highway	Basic	4	6463	68	25.7	C	5065	70	19.7	C	6590	68	26.4	D	5268	70	20.5	C
9 . Arrow Highway Slip Off-Ramp	1 Lane Off	4	1146	55	33.5	D	809	56	26.8	C	1273	55	34.7	D	1012	55	27.9	C
10 . Arrow Highway Slip Off-Ramp to Live Oak Avenue Slip On-Ramp	Basic	4	5317	70	20.7	C	4256	70	16.5	B	5317	70	20.7	C	4256	70	16.5	B
11 . Live Oak Canyon On-Ramp	1 Lane On	4	1458	60	23.4	C	1861	60	22.6	C	1506	60	23.5	C	2102	60	23.3	C
12 . South of Arrow Highway	Basic	4	6775	67	27.3	D	6117	69	24.1	C	6823	67	27.6	D	6358	69	25.2	C

Notes:
m/hr : miles per hour
pc/m/ln: passanger cars per hour per lane

Table 4.7.L - Future Baseline Plus Cumulative Projects Segment and Ramp Junction Levels of Service Analysis

I-605 Freeway	Type	Mainline Lanes	Saturday Peak Hour							
			Without Project				With Project			
			PCE Vol.	Speed (m/hr)	Density (pc/m/ln)	LOS	PCE Vol.	Speed (m/hr)	Density (pc/m/ln)	LOS
Northbound										
1 North of Arrow Highway	Basic	4	4156	70	16.1	B	4537	70	17.6	B
2 . Arrow Highway Slip On-Ramp	1 Lane On	4	273	61	15.7	B	273	61	16.8	B
3 . Arrow Highway Loop On-Ramp to Arrow Highway Slip On-Ramp	Basic	4	3883	70	15.1	B	4264	70	16.6	B
4 . Arrow Highway Loop On-Ramp	1 Lane On	4	225	61	14.9	B	606	61	16.3	B
5 . Live Oak Avenue Off-Ramp to Arrow Highway Loop On-Ramp	Basic	4	3658	70	14.2	B	3658	70	14.2	B
6 . Live Oak Avenue Off-Ramp	1 Lane Off	4	900	56	26.2	C	1307	54	30.0	D
7 . South of Live Oak Avenue	Basic	4	4558	70	17.7	B	4965	70	19.3	C
Southbound										
8 . North of Arrow Highway	Basic	4	4807	70	18.7	C	5242	70	20.4	C
9 . Arrow Highway Slip Off-Ramp	1 Lane Off	4	591	56	23.8	C	1026	55	27.9	C
10 . Arrow Highway Slip Off-Ramp to Live Oak Avenue Slip On-Ramp	Basic	4	4216	70	16.4	B	4216	70	16.4	B
11 . Live Oak Canyon On-Ramp	1 Lane On	4	1156	61	20.3	C	1582	61	21.6	C
12 . South of Arrow Highway	Basic	4	5372	70	20.9	C	5797	70	22.6	C

Notes:
m/hr : miles per hour
pc/m/ln: passanger cars per hour per lane

Threshold:	Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system?
Threshold:	Exceed, either individually or cumulatively, the City's LOS D criteria at all study area intersections.

Previously referenced Table 4.7.D summarizes the results of the existing with project a.m. and p.m. peak hour LOS analysis for all signalized study area intersections utilizing the ICU methodology. As shown in Table 4.7.D, all intersections are projected to operate at acceptable LOS.

Previously referenced Table 4.7.E summarizes the results of the existing with project a.m. and p.m. peak hour LOS analysis for Caltrans facilities and unsignalized intersections utilizing the HCM methodology. As shown in Table 4.7.E, all intersections are projected to operate at satisfactory LOS, with the exception of the following intersections:

- Driveway 1/Live Oak Avenue (LOS F in the p.m. peak hour);
- Driveway 3/Live Oak Avenue (LOS F in the p.m. peak hour); and
- I-605 Northbound Off-Ramps/Live Oak Avenue (LOS F in the p.m. peak hour).

The project contributes to the less than standard LOS at these three intersections, resulting in a significant impact requiring mitigation.

The unsignalized intersection of Commerce Drive/Live Oak Avenue operates at LOS F in the p.m. peak hour; however, based on the City of Irwindale's Policy Guidelines for Traffic Impact Reports, an unsignalized intersection traffic movement at a stop-controlled approach can be deemed to have acceptable operation if the total delay is less than 4.0 vehicle-hours for single lane movement with low volume. Since the total delay at Commerce Drive/Live Oak Avenue is less than 4.0 vehicle-hours, the LOS is considered acceptable.

Previously referenced Table 4.7.F summarizes the results of the existing with project Saturday peak hour LOS analysis for all signalized study area intersections utilizing the ICU methodology. As shown in Table F, all intersections are projected to operate at satisfactory LOS.

Previously referenced Table 4.7.G summarizes the results of the existing with project Saturday peak hour LOS analysis for Caltrans facilities and unsignalized intersections utilizing the HCM methodology. As shown in Table G, all study intersections are currently operating at acceptable LOS with the exception of the following intersections:

- Driveway 1/Live Oak Avenue (LOS F in the Saturday peak hour);
- Driveway 3/Live Oak Avenue (LOS F in the Saturday peak hour); and
- I-605 Northbound Off-Ramps/Live Oak Avenue (LOS F in the p.m. peak hour).

The project contributes to the less than standard LOS at these three intersections, resulting in a significant impact requiring mitigation.

Mitigation Measures. Implementation of the following measure will help ensure that significant project direct traffic impacts to local intersections will remain at less than significant levels:

4.7.6.1A Prior to issuance of certificates of occupancy for the first phase of development, the project applicant shall install a traffic signal at the Driveway 1/Live Oak Avenue intersection. The traffic signal improvement plans shall be reviewed and approved by the

City of Irwindale Public Works Department. This measure shall be implemented to the satisfaction of the City Public Works Director.

4.7.6.1B Prior to issuance of certificates of occupancy for the first phase of development, the project applicant shall install a traffic signal at the Driveway 3/Live Oak Avenue intersection. The traffic signal improvement plans shall be reviewed and approved by the City of Irwindale Public Works Department. This measure shall be implemented to the satisfaction of the City Public Works Director.

4.7.6.1C Prior to the issuance of the first certificate of occupancy for the first phase of development, the project applicant shall make a fair-share contribution to the following circulation improvements and these improvements shall be in place:

- I-605 Northbound Off-Ramps/Live Oak Avenue: Install a traffic signal and add a second northbound right-turn lane. It should be noted that these improvements are a joint improvement project between Caltrans and the City of Irwindale and preparation of the engineering design and environmental documentation is currently underway. It is anticipated that these improvements will be completed in 2016 and in operation prior to the opening year of the project.

The fair-share contribution shall be calculated based on the project's share of the existing plus project traffic volume during the peak hour on a weekday or weekend. The highest fair-share percentage is 25.4 percent during the Saturday peak hour. This measure shall be implemented to the satisfaction of the City Public Works Department.

Level of Significance After Mitigation. With implementation of improvements defined in **Mitigation Measures 4.7.6.1A, 4.7.6.1B,** and **4.7.6.1C**, potential project direct traffic-related impacts of the proposed project at Driveway 1/Live Oak Avenue, Driveway 3/Live Oak Avenue, and I-605 Northbound Off-Ramps/Live Oak Avenue, would be reduced to less than significant levels and no additional mitigation is required. However, the improvements to the I-605 Northbound Off-ramps/Live Oak Avenue intersection are currently part of an improvement project jointly being undertaken by Caltrans and the City. At this time, the City anticipates construction of the improvement project will start in November 2015 and finish by July 2016. However, the City cannot control the precise timing of when the improvements will be constructed and operational. For this reason, the impact remains significant and unavoidable even with mitigation.

4.7.6.2 Future Baseline Plus Cumulative Projects With Project Intersection LOS Impacts

Impact 4.7.6.2: *The project may result in significant cumulative impacts to local intersections based on analysis of Future Baseline Plus Cumulative Projects with Project Intersection LOS.*

Threshold:	Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system?
Threshold:	Exceed, either individually or cumulatively, the City's LOS D criteria at all study area intersections.

Table 4.7.M (Table M in the TIA) summarizes the results of the Future Baseline Plus Cumulative Projects with Project a.m. and p.m. peak hour LOS analysis for all signalized study area intersections utilizing the ICU methodology. As shown in Table 4.7.M, all intersections are projected to operate at acceptable LOS, with the exception of the following intersections:

- Arrow Highway/Live Oak Avenue (LOS E in the p.m. peak hour); and
- Avenida Barbosa/Arrow Highway (LOS E in the a.m. peak hour).

Table 4.7.M - Future Baseline Plus Cumulative Projects Intersection Levels of Service Summary (ICU Methodology)

Intersection	Control	Without Project Conditions				With Project Conditions				Exceeds City Significance Threshold	
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour			
		ICU	LOS	ICU	LOS	ICU	LOS	ICU	LOS	AM Peak Hour	PM Peak Hour
1. Peck Road-Myrtle Avenue/Live Oak Avenue	Signal	0.847	D	0.869	D	0.848	D	0.868	D	N	N
2. Myrtle Avenue/Longden Avenue	Signal	0.878	D	0.897	D	0.883	D	0.897	D	N	N
3. Longden Avenue/Live Oak Avenue	Signal	0.731	C	0.778	C	0.737	C	0.770	C	N	N
4. Arrow Highway/Live Oak Avenue	Signal	0.892	D	0.762	C	0.895	D	0.845	D	N	N
6. Speedway Drive-Driveway 2/Live Oak Avenue	Signal	0.501	A	0.644	B	0.535	A	0.886	D	N	N
10. Graham Road/Live Oak Avenue	Signal	0.716	C	0.763	C	0.715	C	0.773	C	N	N
12. Rivergrade Road/Live Oak Avenue	Signal	0.741	C	0.883	D	0.742	C	0.889	D	N	N
14. Stewart Avenue/Live Oak Avenue	Signal	0.887	D	0.869	D	0.887	D	0.875	D	N	N
15 Baldwin Park/Arrow Highway	Signal	0.780	C	0.800	D	0.777	C	0.801	D	N	N
16 Arrow Highway/Live Oak Avenue	Signal	0.803	D	0.970	E *	0.799	C	0.972	E *	N	N
17 Maine Avenue/Arrow Highway	Signal	0.874	D	0.897	D	0.871	D	0.896	D	N	N
18 Avenida Barbosa/Buena Vista Street	Signal	0.433	A	0.602	B	0.434	A	0.604	B	N	N
19 Avenida Barbosa/Arrow Highway	Signal	0.919	E *	0.675	B	0.967	E *	0.749	C	N	N

Notes: "*" = Exceeds Levels of Service
LOS = Level of Service
ICU = Intersection Capacity Utilization

Table 4.7.N (Table N in the TIA) summarizes the results of the Future Baseline Plus Cumulative Projects with Project a.m. and p.m. peak hour LOS analysis for Caltrans facilities and unsignalized intersections utilizing the HCM methodology. As shown in Table 4.7.N, all intersections are projected to operate at satisfactory LOS, with the exception of the following intersections:

- Driveway 1/Live Oak Avenue (LOS F in the p.m. peak hour);
- Driveway 3/Live Oak Avenue (LOS F in the p.m. peak hour); and
- I-605 Northbound Off-Ramps/Live Oak Avenue (LOS F in the p.m. peak hour).

The project contributes to the less than standard LOS at these five intersections, resulting in a significant impact requiring mitigation.

Table 4.7.O (Table O in the TIA) summarizes the results of the Future Baseline Plus Cumulative Projects with Project Saturday peak hour LOS analysis for all signalized study area intersections utilizing the ICU methodology. As shown in Table 4.7.O, all intersections are projected to operate at satisfactory LOS.

Table 4.7.P (Table P in the TIA) summarizes the results of the Future Baseline Plus Cumulative Projects with Project Saturday peak hour LOS analysis for Caltrans facilities and unsignalized intersections utilizing the HCM methodology. As shown in Table 4.7.P, all study intersections are currently operating at acceptable LOS with the exception of the following intersections:

- Driveway 1/Live Oak Avenue (LOS F in the Saturday peak hour);
- Driveway 3/Live Oak Avenue (LOS F in the Saturday peak hour); and
- I-605 Northbound Off-Ramps/Live Oak Avenue (LOS F in the Saturday peak hour).

The project contributes to the less than standard LOS at these three intersections, resulting in a significant impact requiring mitigation.

Mitigation Measures. Implementation of the following measures will help ensure that significant project cumulative traffic impacts to local intersections will remain at less than significant levels:

4.7.6.2A Prior to the issuance of the first certificate of occupancy for the project, the developer shall make fair-share contributions to the following circulation improvements:

- Arrow Highway/Live Oak Avenue: Add an eastbound through lane. It should be noted, to accommodate a third eastbound through lane, on-street parking will be prohibited.

The fair-share contribution shall be calculated based on the project's share of the existing plus project traffic volume during the peak hour on a weekday or weekend. The highest fair-share percentage is 1.9 percent during the Saturday peak hour. This measure shall be implemented to the satisfaction of the City Public Works Department.

4.7.6.2B Prior to the issuance of the first certificate of occupancy for the project, the developer shall make fair-share contributions to the following circulation improvements:

- Avenida Barbosa/Arrow Highway: Add a second eastbound left-turn lane.

The fair-share contribution shall be calculated based on the project's share of the existing plus project traffic volume during the peak hour on a weekday or weekend. The highest fair-share percentage is 41.1 percent during the Saturday peak hour. This measure shall be implemented to the satisfaction of the City Public Works Department.

Table 4.7.N - Future Baseline Plus Cumulative Projects Intersection Levels of Service (HCM Methodology)

Intersection	Control	Without Project Conditions						With Project Conditions						Exceeds City Significance Threshold	
		AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour				
		V/C	Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS	AM Peak Hour	PM Peak Hour
5 . Driveway 1/Live Oak Avenue	TWSC	-	25.7	D	-	>100	F *	-	46.2	E *	-	>100	F *	Y	Y
7 . Driveway 3/Live Oak Avenue	TWSC	-	10.4	B	-	20.9	C	-	46.4	E *	-	>100	F *	Y	Y
8 . Interstate 605 Southbound On-Ramp/Live Oak Avenue	Signal	0.70	7.3	A	0.87	16.4	B	0.70	7.5	A	0.88	15.8	B	N	N
9 Interstate 605 Northbound Ramps/Live Oak Avenue	TWSC	-	19.9	C	-	>100	F *	-	75.8	F *	-	>100	F *	Y	Y
11 . Live Oak Lane/Live Oak Avenue	TWSC	-	83.3	F †	-	69.4	F †	-	84.0	F †	-	65.2	F †	N	N
13 . Commerce Drive/Live Oak Avenue	TWSC	-	30.8	D	-	97.6	F †	-	31.0	D	-	98.8	F †	N	N
20 . Interstate 605 Southbound Off-Ramp/Arrow Highway	Signal	0.92	26.3	C	0.59	19.7	B	0.91	25.4	C	0.64	18.5	B	N	N
21 Interstate 605 Northbound Ramps/Arrow Highway	TWSC	-	10.9	B	-	10.9	B	-	11.0	B	-	10.1	B	N	N

Notes: "*" = Exceeds Levels of Service

TWSC = Two-Way Stop Control

V/C = Volume/capacity ratio

Delay = Average control delay in seconds. At TWSC intersections, worst-case approach is reported.

LOS = Level of Service

†= Based on City of Irwindalcs Policy Guidelines for Traffic Impact Reports, an intersection traffic movement at a stop-controllcd approach can be deemed to have acceptable operation under the following: Total delay less than 4.0 vehicle-hours for sinlge lane movement with low volume.

Table 4.7.O - Future Baseline Plus Cumulative Projects (Saturday) Intersection Levels of Service Summary (ICU Methodology)

Intersection	Control	Without Project Conditions Peak Hour ICU	Without Project Conditions Peak Hour LOS	With Project Conditions Peak Hour ICU	With Project Conditions Peak Hour LOS
1 . Peck Road-Myrtle Avenue/Live Oak Avenue	Signal	0.549	A	0.559	A
2 . Myrtle Avenue/Longden Avenue	Signal	0.589	A	0.595	A
3 . Longden Avenue/Live Oak Avenue	Signal	0.439	A	0.451	A
4 . Arrow Highway/Live Oak Avenue	Signal	0.457	A	0.630	B
6 . Speedway Drive-Driveway 2/Live Oak Avenue	Signal	0.355	A	0.826	D
10 . Graham Road/Live Oak Avenue	Signal	0.344	A	0.357	A
12 . Rivergrade Road/Live Oak Avenue	Signal	0.329	A	0.356	A
14 . Stewart Avenue/Live Oak Avenue	Signal	0.380	A	0.397	A
15 Baldwin Park/Arrow Highway	Signal	0.479	A	0.484	A
16 Arrow Highway/Live Oak Avenue	Signal	0.464	A	0.466	A
17 Maine Avenue/Arrow Highway	Signal	0.482	A	0.487	A
18 Avenida Barbosa/Buena Vista Street	Signal	0.362	A	0.368	A
19 Avenida Barbosa/Arrow Highway	Signal	0.476	A	0.632	B

Notes: "*" = Exceeds Levels of Service
LOS = Level of Service
ICU = Intersection Capacity Utilization

Table 4.7.P - Future Baseline Plus Cumulative Projects (Saturday) Intersection Levels of Service (HCM Methodology)

Intersection	Control	Without Project Conditions Peak Hour V/C	Delay	LOS	With Project Conditions AM Peak Hour V/C	Delay	LOS		Exceeds City Significance Threshold AM Peak Hour	PM Peak Hour
5 . Driveway 1/Live Oak Avenue	TWSC	-	13.7	B	-	>100	F	*	N	Y
7 . Driveway 3/Live Oak Avenue	TWSC	-	9.5	A	-	>100	F	*	N	Y
8 . Interstate 605 Southbound On-Ramp/Live Oak Avenue	Signal	0.45	4.3	A	0.75	4.5	A		N	N
9 Interstate 605 Northbound Ramps/Live Oak Avenue	TWSC	-	21.9	C	-	>100	F	*	N	Y
11 . Live Oak Lane/Live Oak Avenue	Signal	0.15	12.5	B	0.15	12.9	B		N	N
13 . Commerce Drive/Live Oak Avenue	TWSC	-	12.3	B	-	12.7	B		N	N
20 . Interstate 605 Southbound Off-Ramp/Arrow Highway	Signal	0.29	16.0	B	0.53	12.5	B		N	N
21 Interstate 605 Northbound Ramps/Arrow Highway	TWSC	-	9.3	A	-	9.5	A		N	N

Notes: "*" = Exceeds Levels of Service

TWSC = Two-Way Stop Control

V/C = Volume/capacity ratio

Delay = Average control delay in seconds. At TWSC intersections, worst-case approach is reported.

LOS = Level of Service

Level of Significance After Mitigation. With implementation of improvements defined in **Mitigation Measures 4.7.6.2A and 4.7.6.2B**, potential traffic-related impacts of the proposed project would be reduced to less than significant levels. However, these improvements are not currently programmed by the City, and therefore the City can not guarantee that the improvements will be put in place prior to when the imact would occur. For this reaon, the impacts remain significant and unavoidable even with mitigation.

With implementation of previously defined **Mitigation Measures 4.7.6.1A, 4.7.6.1B,** and **4.7.6.1C**, the project's cumulative traffic impacts at these locationswould be reduced to less than significant levels and no additional mitigation is required.

4.7.6.3 Alternative Transportation

Impact 4.7.6.3: *The project may conflict with adopted policies, plans, or programs supporting alternative transportation.*

Threshold	Would the proposed project conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts or bicycle racks)?

The proposed project plans are not detailed, and therefore amenities that would promote the use of alternative modes of transportation are not shown on the conceptual site plan. This could conflict with applicable policies, plans, or programs supporting alternative transportation resulting in a significant impact requiring mitigation.

Mitigation Measures. Implementation of the following measures will help ensure that the proposed project is consistent with applicable policies, plans, or programs supporting alternative transportation:

4.7.6.3A Prior to issuance of occupancy permits, the developer shall install bike racks and provide showers and locker rooms for employees who wish to ride bicycles to work. Bike racks shall also be installed for retail customers in appropriate locations. An appropriate number of bike racks shall be located near each building to serve the anticipated number of employees and customers. This measure shall be implemented to the satisfaction of the City Engineer.

4.7.6.3B Prior to issuance of the first building permit, the project plans shall be circulated to Foothill Transit (FT) and the Metropolitan Transit Authority (MTA) to determine if there is a need for a bus stop on the south side of Live Oak Avenue in front of the project site (i.e., for either FT Route 270, 272 and 492). If either agency determines a need for such a stop, the developer shall install a bus stop to agency specifications prior to issuance of occupancy permits. This measure shall be implemented for each phase to the satisfaction of the City Engineer.

4.7.6.3C Prior to issuance of the first building permit, the project proponent shall prepare and receive approval from the City Community Development Department of a pedestrian and bicycle circulation plan. The intent of the plan shall be to accommodate the on-site circulation needs of pedestrians and bicyclists in a safe manner, as well as to provide safe and adequate pedestrian and bicycle connections to and from Live Oak Avenue.

Level of Significance After Mitigation. With implementation of **Mitigation Measures 4.7.6.3A and 4.7.6.3B,** potential traffic-related impacts associated with consistency with applicable policies, plans, or programs supporting alternative transportation would be reduced to less than significant levels and no additional mitigation is required.

4.7.7 Cumulative Impacts

Cumulative impacts refer to incremental effects of an individual project when viewed in connection with the effects of past projects, current projects, and probable future projects. Cumulative projects are identified in the previously referenced Table 2.A, Section 2.0, *Introduction*. Cumulative traffic volumes were developed based on the addition of traffic volumes from approved and pending projects in the area (i.e., consistent with CEQA Guidelines section 15120(b)(1)(A) "list of projects method") and projected traffic growth to existing traffic volumes (i.e., consistent with CEQA Guidelines section 15120(b)(1)(B) "projections method"). A radius of approximately 2 miles around the project site was determined to be the cumulative affected area and was used to develop the cumulative project list. This radius and cumulative projects within this area were chosen based on future projects that would impact intersections included in the proposed project's traffic study. With the project-specific mitigation outlined in Section 4.7.6, project-related direct and cumulative impacts will be reduced to less than significant levels, and thus the project will only make incremental (i.e., less than significant) cumulative traffic impacts on local and regional intersections and roadways, and no additional mitigation is required.

Table 6.D: No Project/Existing Specific Plan Alternative Operational Emissions

Source	Pollutant Emissions, lbs/day					
	VOC	NOx	CO	SO_X	PM_{10}	$PM_{2.5}$
Alternative exceeds thresholds?	**No**	**Yes**	**No**	**No**	**No**	**No**

Source: LSA Associates, Inc., August 2014.
CO = carbon monoxide
lbs/day = pounds per day
NOx = nitrogen oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size
ROG = reactive organic compounds
SCAQMD = South Coast Air Quality Management District
SOx = sulfur oxides

Greenhouse Gas Emissions: GHG emissions associated with the Existing General Plan Land Use Alternative would decrease in comparison to the proposed project. The Existing General Plan Land Use Alternative would generate 15.2 percent less greenhouse gas emissions than what was identified for the proposed project. However, like the proposed project the Existing General Plan Land Use Alternative would not reduce emissions to a level that is 15% below the business as usual (BAU) condition. Although this alternative may reduce the impacts of greenhouse gas emissions under BAU to a greater extent than the proposed project, there is not feasible mitigation available to reduce emissions by 15% because the greatest contribution to GHG emissions is vehicular traffic. Therefore, this alternative will still result in a significant and unavoidable impact related to cumulative greenhouse gas emissions, though the impact is slightly reduced in comparison to the proposed project.

Traffic: As indicated in Table 6.E, the Existing General Plan Land Use Alternative would generate approximately 11,443 Net daily Weekend vehicle trips, compared to the 27,408 trips for the proposed project. Therefore, this alternative would result in a 58% percent decrease in daily traffic. The project traffic study indicated study area intersections would operate at unacceptable LOS even with proposed improvements (Mitigation Measures 4.7.6.1A to 4.7.6.1C, and 4.7.6.2A to 4.7.6.2B). Although this alternative decreases local traffic by 58 percent, it would also result in LOS values that do not meet City standards even with similar mitigation, including payment of development impact fees and fair-share contributions to certain intersections. As with the proposed project, project direct and cumulative traffic impacts under this alternative would remain significant and unavoidable, although the impact would be slightly reduced.

Table 6.E: Comparison of Average Daily Trips

Type of Development	Net Daily Trips Weekday	Change	Net Daily Trips Weekend	Change
Proposed Project[1]	17,788	–	27,408	—
No Project/No Build	4,811	-73%	11,443	-58.2%

[1] Based on project Traffic Study (Table E, LSA 2014).
[2] Based on CalEEMod data Land Use: 480 Amusement Park
Source: CalEEMod data based on LSA 2014 (Traffic Study) (Appendix F).

Water Supply: Water demand factors are not readily available for uses such as batting cages, miniature golf courses, carnival rides, and arcades. "Amusement Parks" typically include some amount of retail commercial and restaurant uses. While this alternative assumes development of the entire site with commercial recreation/amusement uses, the size, number, and intensity of individual amusement/recreation uses is uncertain. The historic water demand for amusement parks uses has ranged from 0.189 to 17.50 AFY, which is generally exclusive of landscaping, potable use, and facility usage. Utilizing a mid-range factor of 8.84 AFY, the proposed development of the 63.5-acre site with amusement park uses would require approximately 561.3 AFY of water. The estimated water demand for the retail uses and proposed on-site landscaping is approximately 141 and 19 AFY, respectively (160 AFY total). The water demand for this alternative would be roughly four times that of the proposed project.

Attachment B

231 Cal.App.4th 1152
Court of Appeal,
Fourth District, Division 1, California.

SIERRA CLUB, Plaintiff and Respondent,
v.
COUNTY OF SAN DIEGO, Defendant and Respondent.

D064243 | Filed October 29, 2014

Synopsis

Background: Environmental organization petitioned for writ of mandate to enforce mitigation measure adopted in county's general plan update. The Superior Court, San Diego County, No. 37–2012–00101054–CU–TT–CTL, Timothy Taylor, J., granted petition. County appealed.

Holdings: The Court of Appeal, Nares, J., held that:

[1] climate action plan failed to comply with general plan update mitigation measure requiring detailed greenhouse gas (GHG) emissions reduction targets.

[2] county's adoption of climate action plan was a separate project requiring a separate determination of environmental impact; and

[3] county's project of adopting climate action plan required a supplemental EIR.

Affirmed.

West Headnotes (20)

[1] **Evidence**
Official proclamations and orders

In reviewing trial court's writ of mandate to enforce mitigation measure adopted in county's general plan update requiring preparation of climate action plan with enforceable greenhouse gas (GHG) emission reduction measures, Court of Appeal would take judicial notice of Executive Order establishing targets for reducing GHG emissions in California over time.

Cases that cite this headnote

[2] **Environmental Law**
Assessments and impact statements

Challenges to an agency's failure to proceed in the manner required by California Environmental Quality Act (CEQA) are subject to a significantly different standard of review than challenges that an agency's decision is not supported by substantial evidence, but where the challenge is that the agency did not proceed in the manner required by law, a court must determine de novo whether the agency has employed the correct procedures, scrupulously enforcing all legislatively mandated CEQA requirements. Cal. Pub.Res. Code § 21000 et seq.

Cases that cite this headnote

[3] **Environmental Law**
Assessments and impact statements

Under California Environmental Quality Act (CEQA), when a prior environmental impact report (EIR) has been prepared and certified for a program or plan, the question for a court reviewing an agency's decision not to use a tiered EIR for a later project is one of law, i.e., the sufficiency of the evidence to support a fair argument. Cal. Pub.Res. Code § 21000 et seq.

Cases that cite this headnote

[4] **Environmental Law**
Updated or supplemental statements; recirculation

Under California Environmental Quality Act (CEQA), when a prior environmental impact

report (EIR) has been prepared and certified for a program or plan, if there is substantial evidence in the record that the later project may arguably have a significant adverse effect on the environment which was not examined in the prior program EIR, doubts must be resolved in favor of environmental review and the agency must prepare a new tiered EIR, notwithstanding the existence of contrary evidence. Cal. Pub.Res. Code § 21000 et seq.

Cases that cite this headnote

[5] **Environmental Law**
Duty of government bodies to consider environment in general

The fundamental goals of environmental review under California Environmental Quality Act (CEQA) are information, participation, mitigation, and accountability. Cal. Pub.Res. Code § 21000 et seq.

Cases that cite this headnote

[6] **Environmental Law**
Mitigation measures

In environmental review under California Environmental Quality Act (CEQA), a "mitigation measure" is a suggestion or change that would reduce or minimize significant adverse impacts on the environment caused by the project as proposed. Cal. Pub. Res. Code § 21002.

Cases that cite this headnote

[7] **Environmental Law**
Mitigation measures
Environmental Law
Weight and sufficiency

Under the California Environmental Quality Act (CEQA), a governing body must state a legitimate reason for deleting an earlier adopted mitigation measure from an environmental impact report (EIR), and must support that statement of reason with substantial evidence. Cal. Pub. Res. Code § 21081.6(a)(1).

Cases that cite this headnote

[8] **Environmental Law**
Accrual, computation, and tolling

The 30-day statute of limitations for environmental organization's petition for writ of mandate challenging county's adoption of climate action plan on the basis that it did not comply with a mitigation measure adopted in county's general plan update began to run upon county's adoption of a notice of determination (NOD) approving the climate action plan, not on the earlier date when the county approved the environmental impact report (EIR) for the general plan update. Cal. Pub. Res. Code § 21167(b), (e).

Cases that cite this headnote

[9] **Environmental Law**
Mitigation measures

Once incorporated in an environmental impact report (EIR), mitigation measures cannot be defeated by ignoring them or by attempting to render them meaningless by moving ahead with the project in spite of them, even where subsequent approvals are ministerial. Cal. Pub. Res. Code § 21002.

Cases that cite this headnote

[10] **Environmental Law**
Mitigation measures

If a mitigation measure in an environmental impact report (EIR) later becomes impractical or

unworkable, a supplemental EIR must be prepared, the governing body must state a legitimate reason for deleting the earlier adopted mitigation measure, and the governing body must support that statement of reason with substantial evidence. Cal. Pub. Res. Code § 21002.

Cases that cite this headnote

[11] **Environmental Law**
Particular Projects

County's climate action plan failed to comply with mitigation measure adopted in county's general plan update's program environmental impact report (EIR) requiring a climate action plan to include detailed greenhouse gas (GHG) emissions reduction targets and deadlines and to "achieve comprehensive and enforceable GHG emissions reduction" by 2020 in compliance with the Governor's Executive Order establishing targets for reducing GHG emissions, where many of the mitigation measures set forth in the general plan's mitigation monitoring and reporting program (MMRP) were not currently funded, the climate action plan failed to assess the likelihood that the GHG reduction measures it discussed would be implemented, the automobile driving reductions needed to achieve the Executive Order's targets were not met, the climate action plan did not include an analysis of the county's own operations, and the deadlines in the climate action plan were no more detailed than the deadlines that had already been set forth in the Executive Order and the MMRP. Cal. Pub. Res. Code § 21002.

Cases that cite this headnote

[12] **Environmental Law**
Assessments and impact statements

The audience to whom an environmental impact report (EIR) must communicate is not the reviewing court but the public and the government officials deciding on the project.

Cases that cite this headnote

[13] **Environmental Law**
Particular Projects

After county's general plan update's program environmental impact report (EIR) adopted a mitigation measure requiring a climate action plan, county's adoption of a climate action plan and associated guidelines for determining significance was a separate project requiring a separate determination of environmental impact, where the details of the climate action plan were not available during program-level analysis of the general plan, and the climate action plan was a plan-level document. Cal. Pub. Res. Code § 21151.

Cases that cite this headnote

[14] **Environmental Law**
Proceedings; certification and approval

Any implied finding by county that its climate action plan complied with the county's general plan update's program environmental impact report's (EIR) mitigation measure requiring a climate action plan, in county's adoption of the climate action plan, did not satisfy California Environmental Quality Act's (CEQA) requirement of express findings. Cal. Pub. Res. Code § 21081.

Cases that cite this headnote

[15] **Environmental Law**
Particular Projects

After county's general plan update's program environmental impact report (EIR) adopted a mitigation measure requiring a climate action plan, the California Environmental Quality Act

(CEQA) required the climate action plan to incorporate mitigation measures directly into the plan, since the plan was a plan-level document. Cal. Pub.Res. Code § 21081.6(b).

Cases that cite this headnote

[16] **Environmental Law**
Duty of government bodies to consider environment in general

Purpose of California Environmental Quality Act (CEQA) is not to generate paper, but to compel government at all levels to make decisions with environmental consequences in mind. Cal. Pub.Res. Code § 21000 et seq.

Cases that cite this headnote

[17] **Environmental Law**
Updated or supplemental statements; recirculation

Trial court's finding that county's project of adopting a climate action plan and associated guidelines for determining significance would have significant, adverse environmental impacts that had not been previously considered, mitigated, or avoided, in concluding that the project required a supplemental environmental impact report (EIR), was supported by substantial evidence, including evidence that the county failed to comply with a mitigation measure adopted in county's general plan update requiring the climate action plan to include detailed greenhouse gas (GHG) emissions reduction targets and deadlines, that the plan failed to comply with the California Global Warming Solutions Action's requirement to continue to reduce GHG emissions after the year 2020, and that the plan failed to comply with the Governor's Executive Order establishing targets for reducing GHG emissions in California over time. Cal. Health & Safety Code § 38550; Cal. Pub. Res. Code § 21094(a).

Cases that cite this headnote

[18] **Environmental Law**
Updated or supplemental statements; recirculation

After county's general plan update's program environmental impact report (EIR) adopted a mitigation measure requiring a climate action plan, county's separate project of adopting a climate action plan and associated guidelines for determining significance required a supplemental EIR, where the plan and guidelines were approved without the appropriate environmental analysis to avoid or mitigate the consequences of climate change, the details of the climate action plan were not available during program-level analysis of the county's general plan, and the general plan update program EIR did not contemplate that preparation of the climate action plan and guidelines was at the "plan-level." Cal. Pub. Res. Code §§ 21094(a), 21151, 21166; Cal. Code Regs. tit. 14, § 15183.5(b)(l)(F).

Cases that cite this headnote

[19] **Environmental Law**
Weight and sufficiency

Under California Environmental Quality Act (CEQA), it is an abuse of discretion to reject alternatives or mitigation measures that would reduce adverse impacts without supporting substantial evidence. Cal. Code Regs. tit. 14, §§ 15043, 15093(b).

Cases that cite this headnote

[20] **Environmental Law**
Particular Projects

When county produced a climate action plan and associated guidelines for determining significance of greenhouse gas (GHG) impacts

pursuant to a mitigation measure in the county's general plan, the impacts of the plan and guidelines after a GHG reduction deadline eight years in the future were not so speculative that they could be excluded from the supplemental environmental impact report (EIR) for the plan and guidelines, where other agencies had been able to consider the environmental impacts of the climate action plan. Cal. Pub. Res. Code § 21082.2(c).

See 12 Witkin, Summary of Cal. Law (10th ed. 2005) Real Property, § 842.

Cases that cite this headnote

**157 APPEAL from a judgment of the Superior Court of San Diego County, Timothy Taylor, Judge. Affirmed. (Super. Ct. No. 37–2012–00101054–CU–TT–CTL)

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Opinion

NARES, J.

*1156 This action arises out of the County of San Diego's (County's) 2011 general plan **158 update, wherein the County issued a program environmental impact report (PEIR), and adopted various related mitigation measures. In this action the Sierra Club sought, in a petition for writ of mandate, to enforce one mitigation measure adopted by the County: the Climate Change Mitigation Measure CC–1.2 (Mitigation Measure CC–1.2). With Mitigation Measure CC–1.2, the County committed to preparing a climate change action plan with "more detailed greenhouse gas [GHG] emissions reduction [GHG] targets and deadlines" and "comprehensive and enforceable GHG emissions reductions measures that will achieve" specified quantities of GHG reductions by the year 2020.

However, the Sierra Club alleged that instead of preparing a climate change action plan that included comprehensive and enforceable GHG emission reduction measures that would achieve GHG reductions by 2020, the County prepared a climate action plan (CAP) as a plan-level document that expressly "does not ensure reductions." The County also developed associated guidelines for determining significance (Thresholds). According to the Sierra Club, review of the CAP and Thresholds project under the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.) was performed after the fact, using an addendum to the general plan update PEIR, without public review, without addressing the concept of tiering, without addressing the County's failure to comply with the *1157 express language of Mitigation Measure CC–1.2, and without a meaningful analysis of the environmental impacts of the CAP and Thresholds project.

The court granted the petition, concluding that the County's CAP did not comply with the requirements of Mitigation Measure CC–1.2 and thus violated CEQA. The court found that the CAP did not contain enforceable GHG reduction measures that would achieve the specified emissions reductions.

The County appeals, asserting (1) the statute of limitations bars the claim that the mitigation measures are not enforceable; (2) the CAP met the requirements of Mitigation Measure CC–1.2; and (3) that the trial court erred in finding that a supplemental EIR was required. We affirm.

FACTUAL AND PROCEDURAL BACKGROUND

A. *Executive Order S–3–05*

[1]In 2005 then-California Governor Arnold Schwarzenegger issued Executive Order No. S–3–05,[1] which acknowledged California's vulnerability to the effects of climate change and established targets for reducing GHG emissions in California over time. Specifically, Executive Order No. S–3–05 set statewide targets for three points in time: 2010, 2020, and 2050. The target for 2010 (2010 Target) was to reduce emissions to the levels they were at in the year 2000. The target for 2020 is to reduce emissions to the levels they were at in 1990 (2020 Target). The target for 2050 is that emissions be 80 percent below the levels they were at in 1990 (2050

Target).

Executive Order No. S–3–05 was based on then-available climate science and represented California's share of worldwide GHG reductions necessary to stabilize climate. As the Attorney General explained, "Executive Order [No.] S–3–05 is an official policy of the State of California, established by gubernatorial order in 2005, and ****159** designed to meet the environmental objective that is relevant under CEQA (climate stabilization)."

B. ***The Legislature Addresses the Need for GHG Emission Reductions***

In response to Executive Order No. S–3–05, the California Legislature enacted the California Global Warming Solutions Action of 2006, Assembly Bill No. 32. (***1158** Health & Saf. Code , § 38500 et seq.) Consistent with Executive Order No. S–3–05, Assembly Bill No. 32 required the California State Air Resources Board (CARB) to determine 1990 levels of GHG emissions and then to establish "a statewide greenhouse gas emissions limit that is equivalent to that level, to be achieved by 2020." (Health & Saf.Code, § 38550.) Assembly Bill No. 32 also stated that GHG reductions must continue after 2020, requiring that the statewide greenhouse gas emissions limit established by CARB "remain in effect unless otherwise amended or repealed" (Health & Saf.Code, § 38551, subd. (a)) and further that "[i]t is the intent of the Legislature that the statewide greenhouse gas emissions limit continue in existence and be used to maintain and continue reductions in emissions of greenhouse gases beyond 2020." (Health & Saf.Code, § 38551, subd. (b).) Assembly Bill No. 32 also required that CARB "prepare and approve a scoping plan [for] achieving the maximum technologically feasible and cost-effective reductions in greenhouse gas emissions by 2020." (Health & Saf.Code, § 38561, subd. (a).)

In December 2008 CARB approved the scoping plan. The scoping plan "identifies California's cities and counties as 'essential partners' within the overall statewide effort, and recommends that local governments set a GHG reduction target of 15% below 2005–2008 levels by 2020." Thus, it was acknowledged that CARB would accept this target as a substitute for the 1990 level referenced in Assembly Bill No. 32 and Executive Order No. S–3–05.

C. ***The County's General Plan Update PEIR***

The County acknowledged in the general plan update PEIR that it needed to "reduce GHG emissions to 1990 levels by 2020" and that changes were required both in the community and in the County's operations, buildings, vehicle fleet, and with respect to its employee commutes, water, and waste.

A GHG emissions inventory was prepared as a special appendix (Appendix K). Appendix K set forth projected emissions reductions and assumptions then-available, and promised that the "Greenhouse Gas Reduction/Climate Action Plan, which will be prepared as an implementation strategy, will further detail the County's GHG emissions and how those reductions will occur."

There was extensive public comment on the general plan update, including from the California Attorney General:

> "[W]e encourage the County to (1) commit in the General Plan to adopt by a date certain a CAP with defined attributes (targets, enforceable measures to meet those targets, monitoring and reporting, and mechanisms to revise the CAP as necessary) that will be integrated into the General Plan; (2) incorporate into the General Plan interim ***1159** policies to ensure that any projects considered before completion of the CAP will not undermine the objectives of the CAP; and (3) for all GHG impacts the County has designated as significant, adopt feasible mitigation measures that can be identified today and that do not require further analysis." (Fn. omitted.)

****160 D.** ***Mitigation Measures***

The County thereafter promised to take a series of additional actions. These promises took the form of a group of climate change-related mitigation measures: Mitigation Measures CC–1.1 through CC-l.19 (the Mitigation Measures). The Mitigation Measures included requirements to update, review, and implement County programs; implement a strategic energy plan; revise the zoning ordinance; coordinate with other entities; educate the public; reduce vehicle miles traveled and encourage alternative modes of transportation; and, based thereon, to revise the County guidelines for determining significance.

The County made the following finding with regard to Mitigation Measure CC–1.2:

> "[Mitigation Measure] CC-l.2 requires the preparation of a County Climate Change Action Plan within six months from the adoption date of the General Plan Update. The Climate Change Action Plan will include a baseline inventory of greenhouse gas emissions from all sources and *more detailed greenhouse gas emissions reduction targets and deadlines*. The County Climate Change Action Plan *will achieve comprehensive and*

enforceable GHG emissions reduction of 17% (totaling 23,572 MTC02E) from County operations from 2006 by 2020 and 9% reduction (totaling 479,717 MTC02E) in community emissions from 2006 by 2020. Implementation of this Climate Change Action Plan will contribute to meeting the [Assembly Bill No.] 32 goals, in addition to the State regulatory requirements noted above." (Italics added.)

Mitigation Measure CC-l.2 formed the basis for Mitigation Measure CC-1.8, which required "revision of the County Guidelines for Determining Significance based on the Climate Change Action Plan."

Mitigation Measure CC–1.8, in turn, formed the basis for Mitigation Measure CC–1.7, which required that the County guidelines for determining significance anticipated by Mitigation Measure CC–1.8 incorporate CARB's recommendation for a threshold for determining significance of impacts on climate change. Should the recommendation "not be released in a timely manner," the County would "prepare its own threshold."

As required by CEQA (Pub.Res.Code, § 21081.6), the County incorporated a mitigation monitoring and reporting program (MMRP) into the general plan update PEIR.

***1160** Included in the MMRP was a promise to achieve GHG reductions by 2020 through comprehensive and enforceable GHG emission reduction measures. In addition to committing to the 2020 Target, the County also committed to compliance with the Executive Order No. S–3–05 trajectory. The County found "significant impacts associated with substantial climate-related risks" such as those "on water supply, wildfires, energy needs, and impacts to public health" would occur as a result of its general plan update. However, as a result of its commitment to adopt a CAP and Thresholds, and other mitigation measures, the County was able to make a finding that the climate change impacts anticipated by the general plan update PEIR would be avoided or substantially lessened.

E. ***The CAP and Thresholds Project***

According to the County, the CAP was prepared for the following purposes:

1. To mitigate the impacts of climate change by achieving meaningful greenhouse gas (GHG) reductions within the County, consistent with Assembly Bill No. ****161** 32, the governor's Executive Order S–3–05, and CEQA guidelines (Cal.Code Regs., tit. 14, § 15000 et seq. [CEQA Guidelines]).

2. To allow lead agencies to adopt a plan or program that addresses the cumulative impacts of a project.

3. To provide a mechanism that subsequent projects may use as a means to address GHG impacts under CEQA.

4. To comply with the 2011 adopted County General Plan Environmental Impact Report (EIR) Mitigation Measure CC–1.2, Preparation of a Climate Action Plan.

Although compliance with Mitigation Measure CC–1.2 was one purpose of the CAP, two of the four purposes relate to preparation of the CAP as a plan-level document so that environmental review could be avoided on future projects that were determined to be below specified "thresholds." (CEQA Guidelines, § 15183.5.) However, the CAP did not mitigate climate change impacts consistent with Assembly Bill No. 32 and Executive Order No. S–3–05, did not satisfy the plan-level requirements of CEQA Guideline 15183.5, and it did not meet the requirements of Mitigation Measure CC–1.2

Instead, the CAP expressly acknowledged the possibility that "communitywide inventories will indicate that the community is not achieving its reduction targets" and admitted that the CAP "does not ensure reductions." ***1161** Further, the CAP did not include a meaningful analysis of "measures that extend beyond the year 2020." Rather, the County documented that instead of continuing to reduce GHG emissions after 2020, GHG emissions allowed as a result of the general plan update were anticipated to *increase* after 2020.

The CAP and Thresholds were presented to the planning commission and the board of supervisors as "the project." The Thresholds, like the CAP, purport to expressly facilitate post–2020 development that would have significant adverse climate change impacts, without any consideration of post–2020 climate science as required by Assembly Bill No. 32 and Executive Order No. S–3–05.

F. ***The Comment Period***

The Sierra Club submitted extensive comments to the County. In particular, the Sierra Club commented on the need to take action consistent with climate science and achieve the Assembly Bill No. 32 and Executive Order No. S–3–05 GHG emissions reductions targets. The Sierra Club also provided specific examples of feasible GHG Reduction measures that would actually reduce GHG emissions and could be adopted without delay. The Sierra Club submitted additional comments and testified

at the planning commission hearing, attempted to appeal the planning commission's decision, and testified at the board of supervisors hearing.

G. *Proceedings Before the Planning Commission*

The final agenda for the April 27, 2012 regular meeting of the County Planning Commission Regulation Meeting made no reference to the associated Thresholds, which were also presented to the planning commission. Despite acknowledging the significant climate change effects as well as the requirements of Assembly Bill No. 32 and Executive Order No. S–3–05, staff took the position that no additional environmental review was required. The planning commission voted to adopt staff's recommendation with one addition relating to installation of electric vehicle recharging stations.

****162 H. *Proceedings Before the Board of Supervisors***

The Project was placed on the agenda for the June 20, 2012 board of supervisors meeting as "County of San Diego Climate Action Plan (District: All)." The staff report and supporting documents presented to the board of supervisors included (1) the CAP, (2) the Thresholds, (3) the environmental documentation, and (4) public documentation.

The environmental documentation included a memorandum referencing "CEQA Guidelines Section 15164 Addendum to the County of San Diego ***1162** General Plan Update [PEIR] (SCH 2002111067)" (Addendum) which was dated the same day as the hearing, June 20, 2012. The addendum defined the project as "the CAP and Significance Guidelines." The addendum included attachments entitled "Environmental Review Update Checklist Form" (environmental checklist) and "Environmental Review Update Checklist for County of San Diego Climate Action Plan." The environmental checklist included a determination by staff that the "new information included in the CAP and Significance Guidelines represent minor technical additions to the previously certified EIR."

At the board of supervisors hearing, staff acknowledged that "[s]tate and local measures in the climate plan are insufficient to achieve our target in 2035" and explained that the CAP measures were not required, but rather that staff "believe[d]" that "education and incentives" might produce a result.

The County also documented that GHG emissions were anticipated to *increase,* not decrease, after 2020. Staff explained that the County would not comply with Executive Order No. S–3–05 because "the State's plan right now goes out to 2020." Staff further explained to the Board of Supervisors that the Thresholds would result in a less than significant finding for greenhouse gas emissions for future development projects.

Ultimately, the board of supervisors took the following actions:

> 1. Adopted environmental findings including in attachment C.
>
> 2. Adopted the plan titled "County of San Diego Climate Action Plan (Attachment A)."

The only findings made by the County were the following:

> 1. The environmental impact report (EIR) dated August 3, 2011 on file with the Department of Planning and Land Use (DPLU) as Environmental Review Number SCH 2002111067 was completed in compliance CEQA and the State and County CEQA Guidelines and that the Board of Supervisors has reviewed and considered the information contained therein and the Addendum thereto dated June 20, 2012 on file with DPLU and attached thereto; and
>
> 2. There were no changes in the project or in the circumstances under which the project was undertaken that involved significant new environmental impacts which were not considered in the previously certified EIR dated August 3, 2011, that there was no substantial increase in the severity of previously identified significant effects, and that no information of substantial ***1163** importance had become available since the EIR was certified as explained in the environmental checklist dated June 20, 2012 and attached thereto.

I. *The Sierra Club Files Suit*

The Sierra Club filed a petition for writ of mandate, challenging the June 20, 2012 approval of the CAP and Thresholds project, including the associated environmental ****163** review. The Sierra Club alleged that the CAP did not meet the requirements of Mitigation Measure CC–1.2, the Thresholds were not adopted pursuant to the requirements of CEQA Guideline section 15064.7, and that an EIR should have been prepared.

J. The Trial Court's Decision

The trial court determined that the CAP did not comply with the requirements for a CAP as set forth in Mitigation Measure CC-1.2, and thus violated CEQA. The trial court found that the CAP neither contained enforceable GHG reduction measures that will achieve the specified emissions reductions, nor detailed deadlines for GHG emission reductions.

The trial court further found that the approval process violated CEQA, noting: "There is no showing that the County properly considered whether the CAP is within the scope of the PEIR" and that "environmental review is necessary to ascertain whether the CAP met the necessary GHG emission reductions when considering the CAP is merely hortatory and contains no enforcement mechanism for reducing GHG emissions."

Further, the trial court determined that whether or not the Thresholds were adopted was a subsidiary issue that did not need to be reached in light of the trial court's decision on the CAP (which formed the basis for the Thresholds) and the process by which it was approved.

DISCUSSION

I. *STANDARD OF REVIEW*

The Sierra Club and the County agree as to the applicable standards of review. In reviewing the County's actions under CEQA, we must determine whether there was "a prejudicial abuse of discretion." (Pub. Resources Code, § 21168.5.) " 'Abuse of discretion is established if the agency has not proceeded in a manner required by law, or if the determination or decision is ***1164** not supported by substantial evidence.' " (*Mira Mar Mobile Community v. City of Oceanside* (2004) 119 Cal.App.4th 477, 486, 14 Cal.Rptr.3d 308.)

[2]"[A] reviewing court must adjust its scrutiny to the nature of the alleged defect." (*Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 435, 53 Cal.Rptr.3d 821, 150 P.3d 709 (*Vineyard*).) Challenges to an agency's failure to proceed in the manner required by CEQA are subject to a significantly different standard of review than challenges that an agency's decision is not supported by substantial evidence. (*Ibid.*) Where the challenge is that the agency did not proceed in the manner required by law, a court must "determine de novo whether the agency has employed the correct procedures, 'scrupulously enforc [ing] all legislatively mandated CEQA requirements.' " (*Ibid.*)

[3] [4]Furthermore, when a prior environmental impact report has been prepared and certified for a program or plan, the question for a court reviewing an agency's decision not to use a tiered EIR for a later project "is one of law, i.e., 'the sufficiency of the evidence to support a fair argument.' " (*Sierra Club v. County of Sonoma* (1992) 6 Cal.App.4th 1307, 1318, 8 Cal.Rptr.2d 473.) "[I]f there is substantial evidence in the record that the later project may arguably have a significant adverse effect on the environment which was not examined in the prior program EIR, doubts must be resolved in favor of environmental review and the agency must prepare a new tiered EIR, notwithstanding the existence of contrary evidence." (*Id.* at p. 1319, 8 Cal.Rptr.2d 473, fn. omitted.) The court "must set aside the decision ****164** if the administrative record contains substantial evidence that a proposed project might have a significant environmental impact; in such a case, the agency has not proceeded as required by law." (*Id.* at 1317, 8 Cal.Rptr.2d 473.)

II. *OVERVIEW OF CEQA*

[5]"The fundamental goals of environmental review under CEQA are information, participation, mitigation, and accountability." (*Lincoln Place Tenants Assn. v. City of Los Angeles* (2007) 155 Cal.App.4th 425, 443–444, 66 Cal.Rptr.3d 120 (*Lincoln Place II*).) As the California Supreme Court has explained: "If CEQA is scrupulously followed, the public will know the basis on which its responsible officials either approve or reject environmentally significant action, and the public, being duly informed, can respond accordingly to action with which it disagrees. [Citations.] The EIR process protects not only the environment but also informed self-government." (*Laurel Heights Improvement Assn. v. Regents of the University of California* (1988) 47 Cal.3d 376, 392, 253 Cal.Rptr. 426, 764 P.2d 278 (*Laurel Heights*).)

CEQA requires a public agency to prepare an environmental impact report (EIR) before approving a project that may have significant environmental effects. (***1165** Pub. Resources Code, § 21100.) The EIR is " 'the heart of CEQA' ... an 'environmental "alarm bell" whose purpose it is to alert the public and its responsible officials to environmental changes before they have reached ecological points of no return.' " (*Laurel Heights, supra,* 47 Cal.3d at p. 392, 253 Cal.Rptr. 426, 764 P.2d 278.)

CEQA authorizes the preparation of various kinds of environmental impact reports depending upon the situation, such as the subsequent EIR, a supplemental EIR, and a tiered EIR. (Pub. Resources Code, §§ 21166, 21068.5, 21093, 21094.) Whereas the subsequent EIR and supplemental EIR are used to analyze modifications to a particular project, a tiered EIR is used to analyze the impacts of a later project that is consistent with an EIR prepared for a general plan, policy, or program. (CEQA Guidelines, § 15385; compare Pub. Resources Code, § 21166 & CEQA Guidelines §§ 15162, 15163 & 15164 [referencing "the project"] with Pub. Resources Code, § 21093 [stating that later projects may use tiering].)

CEQA requires that "environmental impact reports shall be tiered whenever feasible." (Pub. Resources Code, § 21093, subd. (b).) Tiering means "the coverage of general matters in broader EIRs (such as on general plans or policy statements) with subsequent narrower EIRs ... incorporating by reference the general discussions and concentrating solely on the issues specific to the EIR subsequently prepared." (CEQA Guidelines, § 15385; Pub. Resources Code, § 21068.5.) In the context of program and plan-level EIR's, the use of tiered EIR's is mandatory for a later project that meets the requirements of Public Resources Code section 21094, subdivision (b). (Pub. Resources Code, § 21094, subd. (a).)

[6]Another requirement of CEQA is that public agencies "should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which would substantially lessen the significant environmental effects of such projects." (Pub. Resources Code, § 21002.) "A 'mitigation measure' is a suggestion or change that would reduce or minimize significant adverse impacts on the environment caused by the project as proposed." (*Lincoln Place II, supra,* 155 Cal.App.4th at p. 445, 66 Cal.Rptr.3d 120.)

If the agency finds that mitigation measures have been incorporated into the project ****165** to mitigate or avoid a project's significant effects, a "public agency shall adopt a reporting or monitoring program for the changes made to the project or conditions of project approval, adopted in order to mitigate or avoid significant effects on the environment. The reporting or monitoring program shall be designed to ensure compliance during project implementation." (Pub. Resources Code, § 21081.6, subd. (a)(1).)

[7]If a mitigation measure later becomes "impracticable or unworkable," the "governing body must state a legitimate reason for deleting an earlier adopted ***1166** mitigation measure, and must support that statement of reason with substantial evidence." (*Lincoln Place Tenants Association v. City of Los Angeles* (2005) 130 Cal.App.4th 1491, 1509, 31 Cal.Rptr.3d 353 (*Lincoln Place I*).)

III. *ANALYSIS*

A. *Statute of Limitations Defense*

[8]The County asserts that the Sierra Club's claim that the mitigation measures it adopted are not enforceable is barred by the statute of limitations because the Sierra Club should have challenged the County's approval of the general plan update EIR, not the CAP. We reject this contention.

The petition was filed 30 days after the County's June 20, 2012 approval of the CAP. In addition, the lawsuit was filed 29 days after the County filed a notice of determination (NOD). The Sierra Club's July 20, 2012 petition was timely filed 29 days after. Thus, the County triggered the 30–day statute of limitations set forth in Public Resources Code section 21167, subdivisions (b) and (e).

The Sierra Club is not challenging the validity of the general plan update PEIR or the enforceability of the mitigation measures provided in that document. Rather, the Sierra Club is challenging the project before the Board of Supervisors on June 20, 2012, and seeks to enforce a key mitigation measure set forth in the EIR and MMRP—Mitigation Measure CC–1.2.

Further, the Court of Appeal in *Lincoln Place II, supra,* 155 Cal.App.4th 425, 66 Cal.Rptr.3d 120 rejected a similar argument to that made by the County. In that case, a tenants' association sought to compel the City of Los Angeles to enforce mitigation measures contained in a vesting tentative tract map issued by the city. The city argued that the 180–day statute of limitations contained in Public Resources Code section 21167 for challenges to approval of projects without determining whether they have a significant effect on the environment barred the plaintiffs' action. In rejecting that action, the Court of Appeal held "[t]he statute's plain language demonstrates it has no application to this case seeking to *enforce mitigating conditions.*" (*Lincoln Place II,* at p. 453, fn. 23, 66 Cal.Rptr.3d 120, italics added.)

Moreover, the cases cited by the County in support of its position are inapposite. The County cites *River Valley Preservation Project v. Metropolitan Transit*

Development Bd. (1995) 37 Cal.App.4th 154, 43 Cal.Rptr.2d 501 and *Friends of Davis v. City of Davis* (2000) 83 Cal.App.4th 1004, 100 Cal.Rptr.2d 413 for the proposition that because the time period within which to challenge the general plan update EIR has expired, the EIR is conclusively ***1167** presumed to have complied with CEQA. Here, however, the Sierra Club is not challenging the general plan update EIR, but the CAP and Thresholds project, and is seeking to enforce Mitigation Measure CC–1.2.

The County's reliance upon ****166** *Environmental Council of Sacramento v. City of Sacramento* (2006) 142 Cal.App.4th 1018, 48 Cal.Rptr.3d 544 and *Mount Shasta Bioregional Ecology Center v. County of Siskiyou* (2012) 210 Cal.App.4th 184, 148 Cal.Rptr.3d 195 is also unavailing. The petitioners in those actions were challenging the adequacy of the mitigation measures themselves. Here, the Sierra Club does not attack the adequacy of the mitigation measure in the general plan update PEIR. To the contrary, the Sierra Club's lawsuit is in *support* of the County's past findings and promises to achieve GHG Reductions.

B. *Failure To Proceed in a Manner Required by Law*

As detailed, *ante,* implementation of Mitigation Measure CC-l.2 was only one of the purported purposes of the CAP and Thresholds project. The CAP and Thresholds project also purports to be a plan-level document for use in review of later projects.

As we shall explain, *post,* with respect to the CAP as mitigation for a plan-level document, the County failed to proceed in the manner required by CEQA by proceeding with the CAP and Thresholds project in spite of the express language of Mitigation Measure CC-l.2 that the CAP "include ... more detailed greenhouse gas emissions reduction targets and deadlines" and that the CAP "will achieve comprehensive and enforceable GHG emissions reduction" by 2020. With respect to the CAP as a plan-level document itself, the County failed to proceed in the manner required by law by failing to incorporate mitigation measures into the CAP as required by Public Resources Code section 21081.6.

1. *The County failed to adopt a CAP that complied with the requirements of Mitigation Measure CC–1.2*

[9] [10]"Mitigating conditions are not mere expressions of hope." (*Lincoln Place I, supra,* 130 Cal.App.4th at p. 1508, 31 Cal.Rptr.3d 353.) Once incorporated, mitigation measures cannot be defeated by ignoring them or by "attempting to render them meaningless by moving ahead with the project in spite of them." (*Lincoln Place II, supra,* 155 Cal.App.4th at p. 450, 66 Cal.Rptr.3d 120.) This is true even where subsequent approvals are ministerial. (*Katzeff v. California Department of Forestry & Fire Protection* (2010) 181 Cal.App.4th 601, 614, 105 Cal.Rptr.3d 89 [public agency "may not authorize destruction or cancellation of the mitigation—whether or not the approval is ministerial—without reviewing the ***1168** continuing need for the mitigation, stating a reason for its actions, and supporting it with substantial evidence"].) If a mitigation measure later becomes "impractical or unworkable," the "governing body must state a legitimate reason for deleting an earlier adopted mitigation measure, and must support that statement of reason with substantial evidence." (*Lincoln Place I, supra,* 130 Cal.App.4th at p. 1509, 31 Cal.Rptr.3d 353.)

a. *The CAP does not include enforceable GHG emissions required by Mitigation Measure CC–1.2*

[11]When it adopted the general plan PEIR, the County promised to achieve specified GHG reductions by 2020. However, when it approved the CAP and Thresholds project, the County stated that the CAP does not ensure the required GHG emissions reductions. Rather, the County described the strategies as recommendations.

Until this litigation was initiated, the County described the CAP as the most critical component of the County's climate change mitigation efforts. The CAP was intended to " 'provide[ ] the specific details associated with [the General Plan] strategies ****167** and measures for greenhouse gas (GHG) emissions reduction *that were not available* during the program-level analysis of the General Plan.' " (Italics added.)

The County agreed to the mitigating requirement of a CAP containing "comprehensive and enforceable GHG emissions reduction measures that will achieve" the specified GHG Reductions by 2020. This is because, as the County acknowledges, Executive Order No. S–3–05 requires consistent emissions reductions each year from 2010 through 2020 and then a greater quantity of emissions reductions each year from 2020 through 2050.

The County asserts that "[f]ive of the reduction measures incorporated into the CAP are also embodied in state or federal law" and that "CEQA permits reliance on existing regulatory standards as mitigation when it is reasonable to believe compliance will occur."

However, the County acknowledges that these measures will not, alone, achieve the specified GHG emissions

reductions by 2020. In fact, the record shows that without local measures the requirements of Assembly Bill No. 32 will not be met.

Further, the record demonstrates that many of the mitigation measures set forth in the MMRP are not likely to achieve GHG emissions reductions by 2020 as promised by Mitigation Measure CC–1.2 because they are not currently funded. The record show that the County has not funded essential ***1169** programs like replacing its own vehicle fleet, implementing water conservation programs, preparing town center plans, and reducing water demand. The County cannot rely on unfunded programs to support the required GHG emissions reductions by 2020, as Mitigation Measure CC–1.2 requires.

Transportation is a major concern, which the County concedes is the largest source of community GHG emissions. The Sierra Club presented evidence below that driving reductions needed to achieve Assembly Bill No. 32 and Executive Order No. S–3–05 targets are not met. The County did not dispute this evidence. The record shows that transit-related measures are either unfunded, that the County is not making meaningful implementation efforts, and in some instances that the County is acting contrary to mitigation measures incorporated into the general plan update PEIR.

For example, two of the four transportation measures, T1 (increase transit sse) and T2 (increase walking & biking), rely on at least one unfunded program. In addition, measures T1 and T2, as well as T3 (increase ridesharing), also rely on "coordination" with SANDAG and/or other entities.

In response to Sierra Club's comments relating to the effectiveness of these measures as a result of current SANDAG (San Diego Association of Governments) priorities, the County did not request funds based on the fact that it does not control how SANDAG spends its money. As the County stated, "The County does not control regional plans or allocation of regional transportation funding." This position was rejected by the Supreme Court in *City of Marina v. Board of Trustees of the California State University* (2006) 39 Cal.4th 341, 367, 46 Cal.Rptr.3d 355, 138 P.3d 692 [holding respondent could not disclaim responsibility for making payments without first asking for funds].

The CAP's transportation section also does not include an analysis of the County's own operations, and the record appears to include contradictions even over programs over which the County has exclusive control, such as replacement of its own vehicle fleet with alternatively fueled vehicles. Although the County suggests it ****168** will implement "1 % greater efficiency per year", the County has not formally bound itself do so. Indeed, there is no mention of potential funding sources with respect to reductions related to County operations.

b. *The CAP contains no detailed deadlines for reducing GHG emissions*

As the trial court found, the CAP contained no detailed deadlines. The County argues on appeal that the 2020 goal and the timeframes set forth in ***1170** the MMRP are sufficient to meet the requirement of "more detailed ... deadlines." However, Mitigation Measure CC–1.2 expressly required that the CAP provide more detailed deadlines. If the County did not intend for the CAP to do anything further with respect to deadlines than already set forth, the County would not have used the word "more." Indeed, in addition to not providing the promised deadlines, the CAP acknowledges that it will not be effective unless it is updated.

c. *The evidence cited by the County*

The County asserts that CAP measures will be effective because "[p]articipation rates were discussed and modified," and the "feasibility of attaining reduction targets was assessed." However, the County does not cite any evidence in the record to support its belief that people will participate in the various programs to the extent necessary to achieve the reductions asserted, or even assert that feasible measures will actually be implemented.

[12]Rather, the County cites to entire appendices and chapters of the CAP. However, information contained in appendices are " 'not a substitute for "a good faith reasoned analysis." ' " (*Vineyard, supra,* 40 Cal.4th at p. 442, 53 Cal.Rptr.3d 821, 150 P.3d 709.) "The audience to whom an EIR must communicate is not the reviewing court but the public and the government officials deciding on the project." (*Id.* at p. 443, 53 Cal.Rptr.3d 821, 150 P.3d 709.)

The County also asserts that the CAP "demonstrates a [GHG emissions] reduction of 19%." However, the CAP expressly states that it does not ensure reductions. Instead, the County's evidence relates to quantification of the respective measures. Quantifying GHG reduction measures is not synonymous with implementing them. Whether a measure is effective requires more than quantification, but an assessment of the likelihood of

implementation. There is no evidence in the record that the above-referenced mitigation measures will make any contribution to achieving GHG emissions reductions by 2020.

2. *The County's failure to make findings regarding the environmental impact of the CAP and Thresholds project*

[13]Instead of analyzing and making findings regarding the environmental effects of the CAP and Thresholds project, the County made an erroneous assumption that the CAP and Thresholds project was the same project as the general plan update. (*Sierra Club, supra,* 6 Cal.App.4th at p. 1320, 8 Cal.Rptr.2d 473 ["section 21166 and its companion section of the [CEQA] Guidelines appear to control only when the question is whether more than one EIR must be prepared for what is essentially the same project"].) As a result, the County failed to ***1171** render a "written determination of environmental impact" before approving the CAP and Thresholds project. (*No Oil, Inc. v. City of Los Angeles* (1974) 13 Cal.3d 68, 81, 118 Cal.Rptr. 34, 529 P.2d 66; Pub. Resources Code, § 21151.) This constitutes a failure to proceed in the manner required by law. (****169** *No Oil, supra,* 13 Cal.3d at p. 81, 118 Cal.Rptr. 34, 529 P.2d 66.)

By inaccurately assuming the CAP and Thresholds project was the same project as the general plan update, the County failed to analyze the environmental impacts of the CAP and Thresholds project itself. (*Natural Resources Defense Council, Inc. v. City of Los Angeles* (2002) 103 Cal.App.4th 268, 283, 126 Cal.Rptr.2d 615 [holding CEQA violated where "no evidence that the [County] formally addressed whether or not the [ ] project fell within the concept of a 'tiered' EIR"].) As a result, the County never made the required findings that the effects of the CAP and Thresholds project were examined, mitigated, or avoided. (Pub. Resources Code, § 21094, subd. (a).)

The facts of the present case, as the trial court found, are similar to *Center for Sierra Nevada Conservation v. County of El Dorado* (2012) 202 Cal.App.4th 1156, 136 Cal.Rptr.3d 351 (*CSNC*). In *CSNC,* the county prepared a general plan and PEIR. (*Id.* at p. 1162, 136 Cal.Rptr.3d 351.) In the PEIR, one of the mitigation measures was the preparation of a management plan, including a fee program, to mitigate the general plan's impacts on oak woodland habitat. (*Id.* at p. 1163, 136 Cal.Rptr.3d 351.) The initial study concluded that the project was merely an implementation of the county's general plan. (*Id.* at p. 1176, 136 Cal.Rptr.3d 351.)

The Court of Appeal rejected this argument, holding that a tiered EIR was required to examine the management plan since the PEIR did not include sufficient details, rejecting the argument that the management plan was merely an implementation of the general plan. (*CSNC, supra,* 202 Cal.App.4th at pp. 1176, 1184–1185, 136 Cal.Rptr.3d 351.)

The County attempts to distinguish *CSNC* by asserting the general plan update PEIR analyzed the same environmental issue addressed in the CAP. However, the record reveals that the necessary details were not available to the County at the time the general plan update PEIR was certified. Indeed, no component of the project, the CAP or the Thresholds, had even been created at the time of the general plan update.

As the Court of Appeal in *CSNC* explained:

> "That the preceding 2004 program EIR contemplated adverse environmental impacts resulting from development under the 2004 General Plan does not remove the need for a tiered EIR for the oak woodland management plan.... Here, the specific ***1172** project —the oak woodland management plan (including Option B fee program)—required a tiered EIR to examine its specific mitigation measures and fee rate." (*CSNC, supra,* 202 Cal.App.4th at p. 1184, 136 Cal.Rptr.3d 351.)

The general plan update anticipated implementation of mitigation measures—CC-1.2, CC–1.7, and CC-1.8—as mitigating conditions to mitigate the adverse climate change environmental impacts of the general plan update. Those measures were analyzed in the PEIR. However, the PEIR never considered the use of the CAP and the Thresholds as a plan-level program. Thus, the environmental impacts of its use needed to be considered in an EIR. (*NRDC, supra,* 103 Cal.App.4th at p. 281, 126 Cal.Rptr.2d 615 [project did not arise until after PEIR and thus was not contemplated therein].)

[14]The County contends that the Board of Supervisors made an "implied finding" that the CAP complied with Mitigation Measure CC–1.2 and that finding is "entitled to great deference." However, "such an 'implicit finding' does not satisfy CEQA's requirement of express findings." ****170** (*Sacramento Old City Assn. v. City Council* (1991) 229 Cal.App.3d 1011, 1037, 280 Cal.Rptr. 478.) " '[T]he board of supervisors must make findings ... to permit a reviewing court to bridge the analytic gap between the evidence and the ultimate decision.' " (*People v. County of Kern* (1976) 62 Cal.App.3d 761, 777, 133 Cal.Rptr. 389; see *Citizens for Quality Growth v. City of Mt. Shasta* (1988) 198 Cal.App.3d 433, 442, 243

Cal.Rptr. 727 ["passing references to the mitigation measures are insufficient to constitute a finding, as nothing in City's resolutions binds it to follow these measures"].)

Moreover, even if "implied findings" were permissible, there can be no "interpretation" of Mitigation Measure CC–1.2 contrary to its express terms. (*Southern Cal. Edison Co. v. Public Utilities Com.* (2000) 85 Cal.App.4th 1086, 1105, 102 Cal.Rptr.2d 684 ["an agency's interpretation of a regulation or statute does not control if an alternative reading is compelled by the plain language of the provision"]; see *Santa Clarita Organization for Planning the Environment v. City of Santa Clarita* (2011) 197 Cal.App.4th 1042, 1062, 129 Cal.Rptr.3d 183 [agency's "view of the meaning and scope of its own ordinance" does not enjoy deference when it is " 'clearly erroneous or unauthorized' "].)

3. *The County failed to proceed in the manner required by law by failing to incorporate mitigation measures directly into the CAP*

[15]As discussed, *ante,* one of the major differences between the climate change action plan anticipated by Mitigation Measure CC–1.2 in the general plan update PEIR and the CAP and Thresholds project as prepared, is that the general plan update PEIR did not analyze the CAP as a plan-level document ***1173** that itself would facilitate further development. As a plan-level document, the CAP is required by CEQA to incorporate mitigation measures directly into the CAP:

> "A public agency *shall provide the measures to mitigate or avoid significant effects on the environment are fully enforceable through permit conditions, agreements, or other measures*. Conditions of project approval may be set forth in referenced documents which address required mitigation measures or, *in the case of the adoption of a plan,* policy, regulation, or other public project, *by incorporating the mitigation measures into the plan,* policy, regulation, or project design." (Pub. Resources Code, § 21081.6, subd. (b), italics added.)

As authority for the assertion that it did not need to incorporate enforceable mitigation measures into the CAP directly, the County cites *Twain Harte Homeowners Assn. v. County of Tuolumne* (1982) 138 Cal.App.3d 664, 689–690, 188 Cal.Rptr. 233. However, *Twain Harte* was decided before enactment of Public Resources Code section 21081.6, subdivision (b), which, as discussed, *ante,* requires "in the case of the adoption of a plan" that mitigation measures be fully enforceable "by incorporating the mitigation measures into the plan...."

[16]"The purpose of CEQA is not to generate paper, but to compel government at all levels to make decisions with environmental consequences in mind." (*Bozung v. Local Agency Formation Com.* (1975) 13 Cal.3d 263, 283, 529 P.2d 1017.) By failing to consider environmental impacts of the CAP and Thresholds project, the County effectively abdicated its responsibility to meaningfully consider public comments and incorporate mitigating conditions. In addition to the example discussed, *ante,* related to transportation impacts, the Sierra Club also provided examples ****171** of mitigation implemented by other regions to mitigate the effects of climate change in the energy sector. The County neither implemented nor responded to these examples which have already been implemented elsewhere.

4. *The trial court's finding that the County must prepare an EIR*

As set forth in *Lincoln Place I,* a supplemental EIR must be prepared when a public agency determines a previously adopted mitigation measure is infeasible. (*Lincoln Place I, supra,* 130 Cal.App.4th at pp. 1508–1509, 31 Cal.Rptr.3d 353.) In addition, CEQA guidelines, section 15183.5, subdivision (b)(1)(F) provides that a plan for the reduction of GHG emissions should "[b]e adopted in a public process following environmental review."

[17]The County's failure to comply with Mitigation Measure CC–1.2 and Assembly Bill No. 32 and Executive Order No. S–3–05 supports the conclusion that the CAP and Thresholds project will have significant, adverse environmental impacts that have not been previously considered, mitigated, or avoided.

***1174** *Substantial evidence supports the court's finding preparation of an EIR was required*

[18]The County asserts that the substantial evidence standard of review applies to the question of whether a supplemental EIR was required, under which deference is given to an agency's determination. (*Latinos Unidos de Napa v. City of Napa* (2013) 221 Cal.App.4th 192, 200–202, 164 Cal.Rptr.3d 274.) The Sierra Club, on the other hand asserts that the "fair argument" test applies, under which "deference to the agency's determination is not appropriate and its decision not to require an EIR can be upheld only when there is no credible evidence to the contrary." (*Sierra Club, supra,* 6 Cal.App.4th at p. 1318, 8 Cal.Rptr.2d 473.) We conclude that under either

standard, the trial court did not err in finding a supplemental EIR was required.

The fair argument versus substantial evidence test is of no moment because, here, there is no substantial evidence in the record supporting the County's erroneous conclusion that "activities associated with the CAP and Significance Guidelines are within the scope of the General Plan Program EIR."

The County does not dispute that "to avoid serious climate change effects, atmospheric GHG concentrations need to be stabilized as quickly as possible." In fact, the County warns that expected local adverse effects of climate change include "higher temperatures, [¶] a greater number of extremely hot days, [¶] changes in the pattern and amount of precipitation, [¶] decreased water supplies accompanied by increased demand, [¶] increased wildfire risk, [¶] changes in ecosystems, and [¶] decline or loss of plant and animal species." However, the CAP and Thresholds project was approved without the appropriate environmental analysis to avoid or mitigate these consequences. As the trial court found, "environmental review is necessary to ascertain whether the CAP met the necessary GHG emission reductions when considering the CAP is merely hortatory and contains no enforcement mechanism for reducing GHG emissions."

Moreover, as the County acknowledges, the details of the CAP "were not available during program-level analysis of the General Plan." For example, the general plan update PEIR did not provide a "baseline GHG emissions inventory; detailed GHG-reduction targets and deadlines; comprehensive and enforceable GHG emissions-reduction measures; and implementation, monitoring, and reporting of progress toward ****172** the targets defined in the CAP." In 2011 the County found that implementation of mitigation measures, including CC-1.2, CC–1.7, and CC-1.8, were part of the mitigation imposed to mitigate the climate change impacts of the general plan update. It cannot be said that failing to comply with Mitigation Measure CC–1.2, Assembly Bill ***1175** No. 32, and Executive Order No. S–3–05 does not change the environmental conclusions in the general plan update PEIR.

Further, the general plan update PEIR did not contemplate that preparation of the CAP and Thresholds project was at the "plan-level." As a plan-level document, the CAP and Thresholds project was required to undergo environmental review as a matter of law. (CEQA Guidelines, § 15183.5, subd. (b)(l)(F).) The general plan update PEIR also did not contemplate that as a result of the CAP, "[m]ore projects will fall below the bright line threshold, and will not have to conduct detailed analysis", much less study the environmental impact of such. County staff, the planning commission, and the board of supervisors were all aware that approving the CAP and Thresholds project would allow more projects to avoid a climate change analysis, including projects with post–2020 climate change impacts without post–2020 environmental review.

Furthermore, in 2011, the County found that climate change impacts were mitigated not only by implementation of mitigation measures, but also by "compliance with applicable regulations" including Assembly Bill No. 32 and Executive Order No. S–3–05.

By contrast, the CAP and Thresholds project now acknowledges it does not comply with Executive Order No. S–3–05. Instead of maintaining a constant rate of GHG emissions reductions after 2020, as required by Executive Order No. S–3–05, the County admits that GHG emissions will instead increase after 2020. Thus, the County's own documents demonstrate that the CAP and Thresholds project will not meet the requirements of Assembly Bill No. 32 and Executive Order No. S–3–05 and thus will have significant impacts that had not previously been addressed in the general plan update PEIR.

The explanation given to the board of supervisors for failing to address the post–2020 impacts facilitated by the CAP and Thresholds project was that "the State's plan doesn't go out that far, and it would be speculative for us to do that."

[19] [20]However, contrary to the County's argument that it would be "speculative" to consider the environmental impacts of the CAP, the County has acknowledged that other agencies have, in fact, been able to do so. It is an abuse of discretion to reject alternatives or mitigation measures that would reduce adverse impacts without supporting substantial evidence. (CEQA Guidelines, §§ 15043, 15093, subd. (b).) The County's assumption that considering post–2020 impacts is "speculative" is not supported by substantial evidence. (Pub. Resources Code, § 21082.2, subd. (c) ["Argument, speculation, unsubstantiated opinion or narrative, evidence which is clearly inaccurate or erroneous ... is not substantial evidence. Substantial evidence shall ***1176** include facts, reasonable assumptions predicated upon facts, and expert opinion supported by facts."].)

The Sierra Club provided feasible mitigation measures. The County rejected these mitigation measures without substantial evidence for doing so.

In sum, the CAP does not fulfill the County's commitment under CEQA and Mitigation Measure CC–1.2, to provide detailed deadlines and enforceable measures ****173** to ensure GHGF emissions will be reduced.

DISPOSITION

The judgment is affirmed. The Sierra Club shall recover its costs on appeal.

I CONCUR:

McCONNELL, P.J.

I CONCUR IN THE RESULT:

HUFFMAN, J.

Parallel Citations

231 Cal.App.4th 1152, 14 Cal. Daily Op. Serv. 13,341, 2014 Daily Journal D.A.R. 15,749

Footnotes

1 On March 24, 2014, the County requested that we take judicial notice of Executive Order No. S–3–05. We grant that request.

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Response to Comment Letter 38

Response 38-1: The City did in fact use a dual-pronged approach in the RDEIR to consider whether the Proposed Project would result in significant adverse GHG related impacts but does not include a Business as Usual (BAU) approach as suggested by the commenter. The City adopted the SCAQMD 10,000 metric tons of CO_2e per year industrial project screening threshold as a significance threshold in addition to the qualitative threshold of whether the Proposed Project would be in conflict with State goals for reducing GHG emissions (*from Section VII of Appendix G to the CEQA Guidelines*).

In its opinion on *Biological Diversity, et al. v. California Department of Fish and Wildlife*, the Supreme Court stated that: "A lead agency may rely on existing numerical thresholds of significance for greenhouse gas emissions, though as we have explained (ante, p. 14), use of such thresholds is not required." The Supreme Court also stated that: "Using consistency with A.B. 32's statewide goal for greenhouse gas reduction, rather than a numerical threshold, as a significance criterion is also consistent with the broad guidance provided by section 15064.4 of the *CEQA Guidelines*." The Supreme Court had concerns with a BAU approach because the State goal of a 29%reduction of GHG emissions does not translate to a 29% reduction of GHG emissions for every individual project. "We have no assurance it is even possible to calculate how a statewide goal corresponds to specific, quantitative efficiency measures for individual projects." The GHG emissions analysis in the RDEIR is consistent with the Supreme Court's opinion by using an existing numerical threshold of significance while also using consistency with the Statewide GHG reduction goal (AB 32) as thresholds of significance. The GHG analysis is also consistent with guidance provided by *Section 15064.4* of the *CEQA Guidelines*.

Response 38-2: Mitigation Measure AQ-22 on page 3.3-68 of the RDEIR identifies that "the Project Applicant shall purchase verifiable and certified GHG offset credits and provide verification to the City of the purchase annually." Limiting GHG offset credits to one specific offset credit program reduces the feasibility of the Mitigation Measure because the actual purchase of these credits would not take place until the Proposed Project is operational. Once the Proposed Project is operational, GHG offset credits would be purchased annually as needed. Factors such as offset credit availability and offset credit price per ton of carbon would be reviewed prior to selection of an offset credit program. It would be inappropriate for the Project Applicant to select an offset credit program several years in advance of the actual purchase of offset credits and unreasonable to assume the Project Applicant would purchase offset credits from the same offset credit program each year. Mitigation Measure AQ-22 would be enforced by the City as part of the Mitigation Monitoring and Reporting Program (MMRP). As stated on page ES-26 of the RDEIR, the MMRP would be incorporated into the City's Conditions of Approval for the Proposed Project. The specific annual due date would be addressed in the MMRP.

Section 15126.4 of the CEQA Guidelines lists "Off-site measures, including offsets that are not otherwise required, to mitigate a project's emissions" as an acceptable measure to mitigate the significant effects of GHG emissions. All offset credit programs require the use of third-party auditors to validate and verify projects and their emission reductions as a quality and assurance procedure. Offset credits are purchased by the metric ton, therefore, purchasers of offset credits

know exactly how many metric tons of carbon they are offsetting, which ensures actual reductions in GHG emissions.

CAPCOA's GHG Registry is an online service operated by CAPCOA and participating air districts with the goal of providing secure, low-cost, high quality GHG exchange credits created in California. The City would verify that the offset credit program is part of CAPCOA's GHG Registry. Compliance with CAPCOA's GHG Registry is mentioned in Mitigation Measure AQ-22 to show that credit offsets would be purchased from a reputable purveyor of the credits. Compliance with Title 24 Nonresidential Building Energy Efficiency Standards is required by all projects and the City would verify compliance during the building permit application process.

Executive Order No. S-3-05 is discussed on page 3.3-17 of the RDEIR. The SCAQMD used Executive Order No. S-3-05 as the basis for deriving the screening level threshold of 10,000 metric tons of CO_2e per year. Mitigation Measure AQ-22 would reduce GHG emissions from the Proposed Project down to screening level threshold of 10,000 metric tons of CO_2e per year, therefore, the Proposed Project would comply with S-3-05.

Response 38-3: The updated Traffic Impact Analysis (TIA) dated March 17, 2016 is based upon an updated Cumulative Project's list based on City comments that includes the addition of Irwindale Regional Shopping Center and the Olive Pit Mining & Reclamation Project (see Section 4.2). The mitigation measures imposed as conditions of approval and now being implemented for the Irwindale Regional Shopping Center have been included in the cumulative analysis.

Response 38-4: In response to this comment, the summary description for the shopping center is revised in row 6 of Table 3-1 on page 3.0-6 of the Recirculated Draft EIR as follows (new text is underlined and ~~strikethrough~~ is used for deleted text):

"700,000 ~~650,000~~ SF outlet mall"

Response 38-5: Table 4-1 of the updated TIA shows trip generation for the Irwindale Regional Shopping Center, which is consistent with the EIR analysis prepared for the shopping center.

Response 38-6: Trip distribution of the Irwindale Regional Shopping Center is accounted for in the updated TIA (See TIA Appendix H).

Response 38-7: Intersection, freeway mainline, and freeway ramp analyses that include traffic from the Irwindale Regional Shopping Center have been updated in the TIA. With the mitigation measures that were imposed as conditions of approval on the shopping center project, the project impacts of the MRF/TS remain the same as originally determined and reported in the RDEIR, and mitigation measures MM T-1 and MM T-2 remain the same for addressing those impacts.

Response 38-8: See response to 38-7 above. The updated TIA confirmed that with the mitigation measures imposed upon the Regional Shopping Center project, potential impacts of the proposed MRF/TS project were unchanged and the mitigation measures identified in the RDEIR remain applicable and sufficient to address those impacts.

Response 38-9: The RDEIR concluded that the Proposed Project would result in significant ROG and NOx impacts during operations and therefore, the Proposed Project would result in a significant regional cumulative impact given that the Basin is in nonattainment for Ozone. An updated discussion of the Regional Shopping Center would not change the cumulative air quality analysis. An updated discussion of the Regional Shopping Center would not change the cumulative GHG analysis because all projects and GHG emissions on earth are essentially cumulative because they contribute to climate change, a global phenomenon.

RMM

REMY | MOOSE | MANLEY LLP

Andrea K. Leisy
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April 30, 2015

VIA ELECTRONIC & REGULAR MAIL
gromo@ci.irwindale.ca.us

Gus Romo
Community Development Director
City of Irwindale Planning Department
5050 North Irwindale Avenue
Irwindale, CA 91706

Re: Additional Comments on MRF/TS Project (SCH No. 2013051029) Re: Governor Brown's Executive Order B-30-15

Dear Mr. Romo:

We submit this letter on behalf of our clients: (i) Azusa Land Reclamation, Inc. (ALRI); and (ii) USA Waste of California, Inc. (doing business as Nu-way Arrow Reclamation, Inc.) (collectively referred to as "Waste"), for your consideration in the EIR being prepared by the City of Irwindale (City) for the proposed Irwindale Materials Recovery Facility and Transfer Station Project (MRF/TS or Project).

We submitted a letter earlier this month requesting the City consider recent case law in preparation of the EIR. Pursuant to one of those cases – *Sierra Club v. County of San Diego* (2014) 231 Cal.App.4th 1152 – we write this letter to further notify the City of Governor Brown's April 29, 2015 Executive Order B-30-15 relating to additional GHG emissions reduction targets.

As we summarized in our previous letter, *Sierra Club, supra,* instructs that an EIR must include specific and enforceable mitigation measures that would achieve reductions in significant GHG emissions caused by a project. (*Sierra Club, supra,* 231 Cal.App.4th at pp. 1167-1170.) The general plan update at issue in *Sierra Club, supra,* did not comply with Executive Order No. S–3–05 (requiring emissions reduction through 2050) and would thus have significant impacts that had not been mitigated. 1

Yesterday, Governor Brown issued Executive Order B-30-15. The Executive Order establishes a GHG reduction target of 40% below 1990 levels by 2030 to ensure that California meets its target of reducing emissions to 80% below 1990 levels by 2050. We ask the City to revisit the Project's GHG analysis, and consider whether the Project complies with Executive Order No. B-30-15, including what measures the City will take, or require the applicant to take, to comply with the Order.

555 Capitol Mall, Suite 800 Sacramento CA 95814 | Phone: (916) 443-2745 | Fax: (916) 443-9017 | www.rmmenvirolaw.com

Thank you in advance for your consideration of our comments. We look forward to reviewing the Project's Final EIR, and including the analysis of how the Project will not impede the attainment of the goals set forth in Executive Order B-30-15. For your convenience, we have included a copy of Executive Order B-30-15 with this letter and for the record of proceedings. 1 cont.

Very truly yours,

Andrea K. Leisy

Encl.
cc: Ms. Laura Nieto, City Clerk (lnieto@ci.irwindale.ca.us)
Fred Galante (fgalante@awattorneys.com)

Amber

Office of Governor
Edmund G. Brown Jr.

HOME ABOUT MULTIMEDIA NEWSROOM

GOVERNOR BROWN ESTABLISHES MOST AMBITIOUS GREENHOUSE GAS REDUCTION TARGET IN NORTH AMERICA

4-29-2015

New California Goal Aims to Reduce Emissions 40 Percent Below 1990 Levels by 2030

SACRAMENTO - Governor Edmund G. Brown Jr. today issued an executive order to establish a California greenhouse gas reduction target of 40 percent below 1990 levels by 2030 - the most aggressive benchmark enacted by any government in North America to reduce dangerous carbon emissions over the next decade and a half.

"With this order, California sets a very high bar for itself and other states and nations, but it's one that must be reached - for this generation and generations to come," said Governor Brown.

This executive action sets the stage for the important work being done on climate change by the Legislature.

The Governor's executive order aligns California's greenhouse gas reduction targets with those of leading international governments ahead of the United Nations Climate Change Conference in Paris later this year. The 28-nation European Union, for instance, set the same target for 2030 just last October.

California is on track to meet or exceed the current target of reducing greenhouse gas emissions to 1990 levels by 2020, as established in the California Global Warming Solutions Act of 2006 (AB 32). California's new emission reduction target of 40 percent below 1990 levels by 2030 will make it possible to reach the ultimate goal of reducing emissions 80 percent under 1990 levels by 2050. This is in line with the scientifically established levels needed in the U.S. to limit global warming below 2 degrees Celsius - the warming threshold at which scientists say there will likely be major climate disruptions such as super droughts and rising sea levels.

World Leaders React

United Nations Framework Convention on Climate Change Executive Secretary Christiana Figueres: "California and Governor Brown have clearly understood, internalised and articulated the science of climate change and today have aligned the state to the growing global understanding of the step changes and strategies needed over the coming years and decades. Resolving climate change requires a swift peaking of emissions and a deep decarbonisation of the global economy by the second half of the century. California's announcement is a realisation and a determination that will gladly resonate with other inspiring actions within the United States and around the globe. It is yet another reason for optimism in advance of the UN climate conference in Paris in December."

World Bank Group President Jim Yong Kim: "Four consecutive years of exceptional drought has brought home the harsh reality of rising global temperatures to the communities and businesses of California. There can be no substitute for aggressive national targets to reduce harmful greenhouse emissions, but the decision today by Governor Brown to set a 40 percent reduction target for 2030 is an example of climate leadership that others must follow."

Premier of Ontario, Canada Kathleen Wynne: "I applaud Governor Brown's continued leadership on climate change. This shows the important role that sub-national governments can play in shaping a strong global agreement on climate change later this year in Paris."

Former New York Mayor Michael Bloomberg: "California's 2030 goal to reduce carbon emissions is not only bold, it's necessary - for the economy and our future."

NextGen Climate Founder Tom Steyer: "When it comes to climate change, California has emerged as a global leader - proving that we don't have to choose between a healthy environment and a strong economy. Today Governor Brown took that leadership to the next level. By setting an ambitious and achievable target to reduce emissions of climate-altering pollutants 40 percent by 2030, Governor Brown is setting a course that will build upon the hundreds of thousands of good paying advanced energy jobs in California, improve the health and wellbeing of Californians and continue our global leadership to solve the greatest challenge of our generation."

Princeton University Professor Michael Oppenheimer: "Governor Brown's ground-breaking commitment not only shows that solving the climate problem goes hand-in-hand with economic growth and technology leadership, but points the way toward a climate solution for other states and the world."

Climate Adaptation

The executive order also specifically addresses the need for climate adaptation and directs state government to:

- Incorporate climate change impacts into the state's Five-Year Infrastructure Plan;
- Update the Safeguarding California Plan - the state climate adaption strategy - to identify how climate change will affect California infrastructure and industry and what actions the state can take to reduce the risks posed by climate change;
- Factor climate change into state agencies' planning and investment decisions; and
- Implement measures under existing agency and departmental authority to reduce greenhouse gas emissions.

California's Response to Climate Change

In his inaugural address earlier this year, Governor Brown announced that within the next 15 years, California will increase from one-third to 50 percent our electricity derived from renewable sources; reduce today's petroleum use in cars and trucks by up to 50 percent; double the efficiency savings from existing buildings and make heating fuels cleaner; reduce the release of methane, black carbon and other potent pollutants across industries; and manage farm and rangelands, forests and wetlands so they can store carbon.

Since taking office, Governor Brown has signed accords to fight climate change with leaders from Mexico, China, Canada, Japan, Israel and Peru. The Governor also issued a groundbreaking call to action with hundreds of world-renowned researchers and scientists - called the consensus statement - which translates key scientific climate findings from disparate fields into one unified document. The impacts of climate change are already being felt in California and will disproportionately impact the state's most vulnerable populations.

The text of the executive order is below:

EXECUTIVE ORDER B-30-15

WHEREAS climate change poses an ever-growing threat to the well-being, public health, natural resources, economy, and the environment of California, including loss of snowpack, drought, sea level rise, more frequent and intense wildfires, heat waves, more severe smog, and harm to natural and working lands, and these effects are already being felt in the state; and

WHEREAS the Intergovernmental Panel on Climate Change concluded in its Fifth Assessment Report, issued in 2014, that "warming of the climate system is unequivocal, and since the 1950s, many of the observed changes are unprecedented over decades to millennia" and that "continued emission of greenhouse gases will cause further warming and long-lasting changes in all components of the climate system, increasing the likelihood of severe, pervasive and irreversible impacts for people and ecosystems;" and

WHEREAS projections of climate change show that, even under the best-case scenario for global emission reductions, additional climate change impacts are inevitable, and these impacts pose tremendous risks to the state's people, agriculture, economy, infrastructure and the environment; and

WHEREAS climate change will disproportionately affect the state's most vulnerable citizens; and

WHEREAS building on decades of successful actions to reduce pollution and increase energy efficiency the California Global Warming Solutions Act of 2006 placed California at the forefront of global and national efforts to reduce the threat of climate change; and

WHEREAS the Intergovernmental Panel on Climate Change has identified limiting global warming to 2 degrees Celsius or less by 2050 as necessary to avoid potentially catastrophic climate change impacts, and remaining below this threshold requires accelerated reductions of greenhouse gas emissions; and

WHEREAS California has established greenhouse gas emission reduction targets to reduce greenhouse gas emissions to 1990 levels by 2020 and further reduce such emissions to 80 percent below 1990 levels by 2050; and

WHEREAS setting an interim target of emission reductions for 2030 is necessary to guide regulatory policy and investments in California in the midterm, and put California on the most cost-effective path for long term emission reductions; and

WHEREAS all agencies with jurisdiction over sources of greenhouse gas emissions will need to continue to develop and implement emissions reduction programs to reach the state's 2050 target and attain a level of emissions necessary to avoid dangerous climate change; and

WHEREAS taking climate change into account in planning and decision making will help the state make more informed decisions and avoid high costs in the future.

NOW, THEREFORE, I, EDMUND G. BROWN JR., Governor of the State of California, in accordance with the authority vested in me by the Constitution and statutes of the State of California, in particular Government Code sections 8567 and 8571 of the California Government Code, do hereby issue this Executive Order, effective immediately

IT IS HEREBY ORDERED THAT:

1.A new interim statewide greenhouse gas emission reduction target to reduce greenhouse gas emissions to 40 percent below 1990 levels by 2030 is established in order to ensure California meets

its target of reducing greenhouse gas emissions to 80 percent below 1990 levels by 2050.

2.All state agencies with jurisdiction over sources of greenhouse gas emissions shall implement measures, pursuant to statutory authority, to achieve reductions of greenhouse gas emissions to meet the 2030 and 2050 greenhouse gas emissions reductions targets.

3.The California Air Resources Board shall update the Climate Change Scoping Plan to express the 2030 target in terms of million metric tons of carbon dioxide equivalent.

4.The California Natural Resources Agency shall update every three years the state's climate adaptation strategy, Safeguarding California, and ensure that its provisions are fully implemented. The Safeguarding California plan will:
-Identify vulnerabilities to climate change by sector and regions, including, at a minimum, the following sectors: water, energy, transportation, public health, agriculture, emergency services, forestry, biodiversity and habitat, and ocean and coastal resources;
-Outline primary risks to residents, property, communities and natural systems from these vulnerabilities, and identify priority actions needed to reduce these risks; and
-Identify a lead agency or group of agencies to lead adaptation efforts in each sector.

5.Each sector lead will be responsible to:
-Prepare an implementation plan by September 2015 to outline the actions that will be taken as identified in Safeguarding California, and
-Report back to the California Natural Resources Agency by June 2016 on actions taken.

6.State agencies shall take climate change into account in their planning and investment decisions, and employ full life-cycle cost accounting to evaluate and compare infrastructure investments and alternatives.

7.State agencies' planning and investment shall be guided by the following principles
-Priority should be given to actions that both build climate preparedness and reduce greenhouse gas emissions;
-Where possible, flexible and adaptive approaches should be taken to prepare for uncertain climate impacts;
-Actions should protect the state's most vulnerable populations; and
-Natural infrastructure solutions should be prioritized.

8.The state's Five-Year Infrastructure Plan will take current and future climate change impacts into account in all infrastructure projects

9.The Governor's Office of Planning and Research will establish a technical, advisory group to help state agencies incorporate climate change impacts into planning and investment decisions.

10.The state will continue its rigorous climate change research program focused on understanding the impacts of climate change and how best to prepare and adapt to such impacts.
This Executive Order is not intended to create, and does not, create any rights or benefits, whether substantive or procedural, enforceable at law or in equity, against the State of California, its agencies, departments, entities, officers, employees, or any other person.

I FURTHER DIRECT that as soon as hereafter possible, this Order be filed in the Office of the Secretary of State and that widespread publicity and notice be given to this Order.

IN WITNESS WHEREOF I have hereunto set my hand and caused the Great Seal of the State of California to be affixed this 29th day of April 2015.

EDMUND G. BROWN JR.
Governor of California

ATTEST:

ALEX PADILLA
Secretary of State

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Response to Comment Letter 39

Response 39-1: Executive Order No. B-30-15 sets a new, interim, 2030 reduction goal intended to provide a smooth transition to the existing ultimate 2050 reduction goal set by Executive Order No. S-3-05 (signed by Governor Schwarzenegger in June 2005). It is a wake-up call for State agencies to not fall behind the pace of reductions necessary to reach the existing 2050 reduction goal. Executive Order No. B-30-15 orders "All State agencies with jurisdiction over sources of greenhouse gas emissions shall implement measures, pursuant to statutory authority, to achieve reductions of greenhouse gas emissions to meet the 2030 and 2050 greenhouse gas emissions targets." The Executive Order also states "The California Air Resources Board (CARB) shall update the Climate Change Scoping Plan to express the 2030 target in terms of million metric tons of carbon dioxide equivalent."

The CARB is currently moving forward with a second update to the Climate Change Scoping Plan to reflect the 2030 reduction target. The updated Scoping Plan will provide a framework for achieving the 2030 target and will be completed and adopted by the CARB in 2016. It is assumed that the SCAQMD will review the updated Scoping Plan and if necessary, update their GHG significance thresholds to ensure compliance with the 2030 reduction target. Currently there are no known activities underway to reduce the SCAQMD significance threshold. The 2030 target of Executive Order No. B-30-15 is a mid-term GHG reduction target intended to guide California to the ultimate 2050 reduction target of Executive Order No. S-3-05. Executive Order No. S-3-05 is not new and its 2050 reduction goal was reflected in the RDEIR. As noted in **Response 38-2**, the SCAQMD used Executive Order No. S-3-05 as the basis for deriving their screening level threshold of 10,000 metric tons of CO_2e per year. Until CARB provides updates to their Scoping Plan or issues a directive to the Air Districts, it is unclear how the new 2030 reduction target could be used as a threshold of significance against which to measure an individual project's GHG impacts.

It is important to note that in his Inaugural Address in January 2015, Governor Brown identified five key goals for reducing GHG emissions in California through 2030, one of which was "Reduce emissions of short-lived[34] climate pollutants." The Proposed Project is a high recycling project that would increase the amount of waste diverted from landfills, which reduces methane emissions (one of the three main components of short-lived pollutants). Overall, the Proposed Project would offer

[34] Short-lived climate pollutants are powerful climate forcers that remain in the atmosphere for a much shorter period of time than longer-lived climate pollutants, such as carbon dioxide (CO_2). Their relative potency, when measured in terms of how they heat the atmosphere, can be tens, hundreds, or even thousands of times greater than that of CO_2. Reducing these emissions can make an immediate beneficial impact on climate change. Short-lived climate pollutants include three main components: black carbon, fluorinated gases, and methane.

many GHG emissions reduction benefits that were not quantified and subtracted from total GHG emissions, making the GHG analysis in the RDEIR very conservative.

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CHAPTER 3.0 – REVISIONS TO THE RECIRCULATED DRAFT EIR

3.0 REVISIONS TO THE RECIRCULATED DRAFT EIR

In the preparation of the Responses to Comments received on the Draft EIR (DEIR) and Recirculated Draft EIR (RDEIR), some modifications have been made to the RDEIR, as reflected in this section of the Final EIR. New text is shown underlined and deleted text is shown as ~~strikeout~~. For clarity, any changed text in the DEIR as reflected in the RDEIR has now been accepted in this document by the City and is shown as clean text (e.g., not in redline, underline or strikeout).

The additional information in this Chapter includes text clarifications and modifications to the clean version of the RDEIR. Therefore, all text shown below are changes to the clean version of the RDEIR.

Page ES-3 in the RDEIR is revised as follows:

> "*It should be noted:* Readers who previously commented should not repeat those comments and should focus any new comments on the revised portions of the RDEIR [Executive Summary, and Chapters 1.0, 2.0, 3.3, 3.12, 4.0, and 5.0]. Readers who did not previously comment are encouraged to provide comments related to all portions of the RDEIR, including those chapters that have not been revised. The City will respond to written comments as required by State CEQA Guidelines §15088.5(f)(2) listed below. Pursuant to State CEQA Guidelines §15088.5(f):"

Page ES-4 in the RDEIR is revised as follows:

> "(2) The Recirculated Draft EIR Executive Summary and Chapters 1.0, 2.0, 3.3, 3.12, 4.0, and 5.0; and"

Page ES-18 in the RDEIR is revised as follows:

> "***City of Arcadia (June 6, 2013)***
> - Requests copy of the traffic study.
>
> ***CalRecycle (June 7, 2013)***"

Page ES-21 in the RDEIR is revised as follows:

> "~~The EIR is being made available for public review and comment for a period of 45-days beginning on April 2, 2014 and ending on May 16, 2014~~. The RDEIR review begins on August 11, 2014 and ends on September 24, 2014."

CHAPTER 3.0 – REVISIONS TO THE RECIRCULATED DRAFT EIR

Page 1.0-3 in the RDEIR is revised as follows:

> "*It should be noted:* Readers who previously commented should not repeat those comments and should focus any new comments on the revised portions of the RDEIR [Executive Summary, and Chapters 1.0, 2.0, 3.3, 3.12, 4.0, and 5.0]. Readers who did not previously comment are encouraged to provide comments related to all portions of the RDEIR, including those chapters that have not been revised. The City will respond to written comments as required by State CEQA Guidelines §15088.5(f)(2) listed below. Pursuant to State CEQA Guidelines §15088.5(f):"

Page 1.0-12 in the RDEIR is revised as follows:

> "***City of Arcadia (June 6, 2013)***
> - Requests copy of the traffic study.
>
> ***CalRecycle (June 7, 2013)***"

Page 2.0-7 in the RDEIR is revised as follows:

> "They also have responsibilities for guaranteeing the proper storage and transportation of solid wastes. ~~CalRecycle (in conjunction with~~ The County of Los Angeles, Department of Public Health~~)~~ is the LEA for the *Irwindale Materials Recovery Facility and Transfer Station Project*."

Page 2.0-9 in the RDEIR is revised as follows:

> "A licensed hazardous waste handling contractor will pack and remove hazardous materials every 90 days. Liquid wastes and sludges shall also be prohibited to be accepted or stored at the facility without written approval from appropriate agencies and the LEA, pursuant to 14 CCR Section 17407.5(c)."

Page 2.0-23, Table 2-6 in the RDEIR is revised as follows:

AGENCY	APPROVAL / AGREEMENT / PERMIT
~~California Department of Conservation, Division of Recycling~~ California Department of Resources Recycling and Recovery (CalRecycle)	Beverage container recycling certifications

Page 3.0-6, row 6 of Table 3-1 in the RDEIR is revised as follows:

> "700,000 ~~650,000~~ SF outlet mall"

Page 3.3-11 in the RDEIR is revised as follows:

Table 3.3-2 State and National Criteria Air Pollutant Standards, Effects, and Sources

Pollutant	Averaging Time	National Standard
Sulfur Dioxide (SO_2)	1 Hour 3 Hour 24 Hour Annual	0.10 ppm 0.5 ppm 0.14 ppm 0.03 ppm
Fine Particulate Matter ($PM_{2.5}$)	24 Hour Annual	35 µg/m^3 12~~5~~ µg/m^3

Page 3.3-25 in the RDEIR is revised as follows:

"**Table 3.3-4 Ambient Air Quality Standards for Criteria Pollutants**"

Page 3.3-32 in the RDEIR is revised as follows:

- "On-site stock piles shall be covered or watered at least twice per day.
- The Applicant shall use street sweepers (using reclaimed water if available) that comply with SCAQMD Rules 1186 and 1186.1"

Page 3.3-33 in the RDEIR is revised as follows:

"**MM AQ-8**

Prior to commencement of operations, t~~T~~he Applicant ~~project~~ shall develop and implement a plan, to the reasonable satisfaction of the City, demonstrating that the off-road equipment (more than 50 horsepower) to be used in the construction project (i.e., owned, leased, and subcontractor vehicles) would achieve a project wide fleet-average 20 percent NO_x reduction and 85 percent PM reduction compared to the most recent CARB fleet average (i.e., Tier 2 equipment or better). Acceptable options for reducing emissions include the use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, add-on devices such as particulate filters, and/or other options as such are available."

Page 3.3-40, Table 3.3-13 and Page 3.3-41, Table 3.3-14 in the RDEIR are revised as follows:

"**Table 3.3-13 Estimated Daily Unmitigated Proposed Project Emissions from Project Operation (pounds/day)**"

"**Table 3.3-14 Estimated Daily Unmitigated Proposed Project Emissions from Project Variant (pounds/day)**"

Page 3.3-43, Page 3.3-50, and Page 4.0-8 in the RDEIR are revised as follows:

"**MM AQ-16**

~~Older (prior to 2010 model year) transfer trucks shall be equivalent to Tier 2 emission standards (such as particulate filter traps) prior to onsite use.~~

At project start, all heavy duty trucks entering the property must meet or exceed 2010 engine emission standards specified in California Code of Regulations Title 13, Article 4.5, Chapter 1, Section 2025."

Page 3.3-43, Page 3.3-50, and Page 4.0-8 in the RDEIR are revised as follows:

"**MM AQ-17**

The Project Applicant shall require all on-site off-road heavy-duty equipment (loaders, excavators, skid steer) to meet USEPA Tier 3 emissions standards (or Tier 4 emission standards, based on availability at the initiation of the Project).[1] In addition, these on-site off-road construction equipment used in operation of the Project shall be outfitted with the Best Available Control Technology (BACT) devices certified by CARB. Any emissions control device used by the applicant shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations. A copy of the certified tier specification for each piece of heavy-duty equipment, BACT documentation, and CARB or SCAQMD operating permit shall be provided to the City prior to operation of the Project."

Page 3.3-43, Page 3.3-51, and Page 4.0-9 in the RDEIR are revised as follows:

"**MM AQ-18**

All diesel truck operators shall strictly abide by the applicable State law requirements for idling, as described in the Airborne Toxic Control Measure (CCR, Title 13, Section 2485), which limits vehicles with gross vehicular weight ratings of more than 10,000 pounds to no more than five minutes of idling of the primary engine or the diesel-fueled auxiliary power system at any location. Trucks engaging in unloading at the Project site and load weighing/financial transactions at the scale house shall be prohibited from idling in excess of five minutes. Visible signage notifying truck operators of idling limits shall be posted near all site entrances. In the event third party collection haulers were required, all diesel

[1] The first federal standards (Tier 1) for new nonroad (or off-road) diesel engines were adopted in 1994 for engines over 37 kW (50 hp), to be phased-in from 1996 to 2000. In 1998, the USEPA signed the final rule introducing Tier 1 standards for equipment under 37 kW (50 hp) and increasingly more stringent Tier 2 and Tier 3 standards for all equipment with phase-in schedules from 2000 to 2008. The Tier 1-3 standards are met through advanced engine design, with no or only limited use of exhaust gas after treatment (oxidation catalysts). Tier 3 standards for NOx+HC are similar in stringency to the 2004 standards for highway engines. In 2004, the USEPA signed the final rule introducing Tier 4 emission standards, which are to be phased-in over the period of 2008 to 2015. The Tier 4 standards require that emissions of PM and NOx be further reduced by about 90 percent. Tier 2 engines reduce NOx emissions by approximately 37 percent compared to Tier 1 engines, while Tier 3 engines achieve a 62 percent reduction in NOx-HC emissions.

truck operators that use the facility would be encouraged, and if reasonably possible by Athens to require contractually, to apply in good faith for funding from an established CARB or SCAQMD funding program to either retrofit or replace engines that are older than 2007 model year."

Page 3.3-45, Table 3.3-15 in the RDEIR is revised as follows:

"**Table 3.3-15 Estimated Daily Mitigated Proposed Project Emissions from Project Operation (pounds/day)**"

Page 3.3-49 in the RDEIR is revised as follows:

"For operations, t~~T~~he project-related CO impacts including background concentrations are 3.2 and 1.4 ppm for the 1-hour and 8-hour averaging periods, respectively; well below the thresholds of 20 and 9 ppm, respectively. The project-related NO_2 impacts including background concentrations are 0.19 and 0.02 ppm for the 1-hour and annual averaging periods, respectively. The 1-hour NO_2 impact is above the threshold of 0.18 ppm. The SO_2 impacts are less than 0.01 ppm as a result of ultra-low sulfur diesel. Diesel fuel does not contain lead emissions and gasoline fuel is unleaded."

Page 3.3-49 in the RDEIR is revised as follows:

"**MM AQ-1 through MM AQ-11** would further reduce the construction impacts. For example, the mitigated NO_2 impacts including background concentrations are 0.13 and 0.02 ppm for the 1-hour and annual averaging periods, respectively. The mitigated project construction incremental PM_{10} impacts are 1.7 for 24-hour impact and 0.2 $\mu g/m^3$ for annual impacts. The mitigated project construction incremental $PM_{2.5}$ impacts are 0.9 $\mu g/m^3$ for 24-hour impacts.

Operational p~~P~~roject-related air quality impacts from NOx and PM_{10} emissions would be significant; and therefore, the project is required to adhere to **MM AQ-1~~2~~4** through **MM AQ-18**.

With imposition of **MM AQ-1~~2~~4** through **MM AQ-18**, the mitigation program would reduce the 1-hour NO2 impacts including background concentrations to 0.15 ppm; which is below the threshold of 0.18 ppm. The mitigated 24-hour PM_{10} and $PM_{2.5}$ impacts would be 1.1 μg/m3; below the 24-hour threshold of 2.5 μg/m3. Thus, air quality impacts from NOx and PM_{10} emissions from the Proposed Project are less than significant with mitigation."

Page 3.3-57 in the RDEIR is revised as follows:

"The project is required to adhere to **MM AQ-12** through **MM AQ-18** which have been designed to further reduce combustion emissions such as diesel particulates and thus reduce the cancer risks."

Page 3.3-68 and Page 4.0-9 in the RDEIR are revised as follows:

"**MM AQ-22:**

The Project Applicant shall purchase verifiable and certified GHG offset credits and provide verification to the City of the purchase annually. Off-set credits shall be purchased in an amount that is based on one of the following:

(1) Offset-credits for 48,803 metric tons or,

(2) Offset-credits in an amount computed on the basis of the Project's actual GHG emissions the previous year ~~compared to actual Project-related emissions~~ compared to emissions from the 2013 baseline condition minus 10,000 metric tons of CO_2e per year. The calculation must be prepared and certified by a professional Air Pollution expert, acceptable to the City as determined by the Director of Community Development."

Page 3.11-17 in the RDEIR is revised as follows:

"Residual waste that cannot be recycled or otherwise recovered, including waste generated on-site during construction and operation, would be transported to one of several contracted landfills such as Mid Valley landfill in Rialto (San Bernardino County), <u>or</u> San Timoteo landfill in Redlands (San Bernardino County). ~~or Chiquita Canyon landfill in Castaic (Los Angeles County)~~."

Page 3.12-26 in the RDEIR is revised as follows:

"Sole access for ~~transfer~~ trucks to and from the site would be from Arrow Highway, and directed towards Interstate 605 for regional transport, utilizing only City of Irwindale roadways."

Page 4.0-5 in the RDEIR is revised as follows:

"Traffic-related noise would be significant at the exterior area of offices and businesses between the site and the freeways along Arrow Highway west of Rivergrade Road."

Page 5.0-6 in the RDEIR is revised as follows:

"In addition, the Pit has not yet undergone reclamation to allow for development of the site, and based upon the City's experience with properly compacted backfill reclamation at multiple sites (Reliance, Nuway and Manning pits for example), reclamation of this site will take up to a decade or more, including initial reclamation planning and independent environmental review to ensure proper backfill and compaction to support subsequent development ~~would require separate~~."

Appendix C, page 11 in the RDEIR is revised as follows:

> "Secondly, the applicant is proposing to include a<u>n</u> ~~six~~ <u>eight</u> pump vehicle fueling facility. Fuel (gasoline) dispensing operations would result in reactive organic gas (ROG) emissions which include TACs such as benzene, 1,3-butadiene, and formaldehyde (although the 16 air toxics contained with gasoline fuel were included in the analysis). These ROG emissions would result from four activities; loading and breathing losses (both related to the underground storage tanks), as well as refueling and spillage (both related to the fuel pumps). The following are additional details concerning these emission points:
>
> - Loading emissions occur when a cargo tank truck unloads gasoline to the storage tanks at the gasoline station. Storage tank vapors are emitted from the vent pipe during the initial fuel transfer period. These emissions are significantly reduced when the vent pipe includes a pressure/vacuum valve.
> - Gasoline vapors are emitted from the storage tank vent pipe due to temperature and pressure changes within the storage tank vapor space.
> - During the refueling process, gasoline vapors are emitted at the vehicle/nozzle interface.
> - Spillage emissions occur from the spills during vehicle fueling."

CHAPTER 3.0 – REVISIONS TO THE RECIRCULATED DRAFT EIR

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CHAPTER 4.0 – INDEX OF COMMENTS AND RESPONSES

4.0 INDEX OF COMMENTS AND RESPONSES

This index covers the issues discussed in the comments received on the Draft EIR and Recirculated Draft EIR and responses to the comments. Bolded, underlined comments (i.e., **7-1**) indicate the location of substantial information in either the comment or the response to the comment. Written comments on the Draft EIR (Letters 1 through 15) and written comments on the Recirculated Draft EIR (Letters 16 through 39) and responses to written comments are included in **Chapter 2**.

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Mitigation Monitoring and Reporting Program

State CEQA Guideline §15097 directs the Lead Agency, the City of Irwindale, to adopt a program for monitoring or reporting on the revisions which it has required in the project and the measures it has imposed to mitigate or avoid significant environmental effects. This Mitigation Monitoring and Reporting Program (MMRP) is required as a condition of approval by the City of Irwindale in order to ensure that the mitigation measures and project revisions identified in the EIR are implemented. The MMRP will be monitored by various departments of the City of Irwindale. This MMRP includes the mitigation as identified in the Final EIR; and those which are required to address the potential environmental impacts associated with implementation of the proposed project. CEQA (Public Resources Code Section 21081.6 (a) (1)).

State CEQA Guidelines §15370 defines "mitigation" as:

- Avoiding the impact completely by not taking a certain action or parts of an action;
- Minimizing the impact by limiting the degree or magnitude of the action and its implementation;
- Rectifying the impact by repairing, rehabilitating, or restoring the affected environment;
- Reducing or eliminating the impact over time by preservation and maintenance operations, during the life of the action;
- Compensating for the impact by replacing or providing substitute resources or environments.

Note: *Authority cited: Section 21083, Public Resources Code; Reference: Sections 21002, 21002.1, 21081, and 21100(c), Public Resources Code.*

In addition to mitigation measures (sometimes referred to as "MM"), the *Irwindale Materials Recovery Facility and Transfer Station Project* is required to comply with project design features (sometimes referred to as "PDF"). PDFs are designed during the initial planning phase and are incorporated into the physical design of a project. PDFs have been introduced by either the Applicant or the Lead Agency as a way to reduce an anticipated effect. The mitigation program incorporates both MMs and PDFs. All direct and indirect impacts that can be avoided or reduced to less than significant levels by the mitigation program are discussed in the EIR. The mitigation program serves as a means to reduce or avoid any identified potentially significant adverse impacts from implementation of the Proposed Project. When these potentially significant adverse impacts remain significant, even after imposing the mitigation program, such impacts are identified as significant and unavoidable. (State CEQA Guidelines §§15091, 15097, and 15126.4). Refer to **Table A-1 Irwindale Materials Recovery Facility and Transfer Station Project EIR Mitigation Monitoring and Reporting Program**.

Table A-1
Irwindale Materials Recovery Facility and Transfer Station Project EIR
Mitigation Monitoring and Reporting Program

Mitigation Measure Number	*Mitigation Measure*	*Monitoring/Reporting Responsibility*	*Mitigation Timing*	*Method of Verification*	*City Mitigation Verification Signature/Date*
AIR QUALITY / GREENHOUSE GASES / ODORS / HEALTH RISK ASSESSMENT					
MM AQ-1	**Dust Control / SCAQMD Rules 402 and 403** In order to offset potential impacts that could occur without compliance with Rules 402 and 403, the City shall ensure the Proposed Project adheres to the provisions of SCAQMD Rules 402 and 403 regarding construction-related fugitive dust control by implementing a dust control program pursuant to the provisions of SCAQMD Rules 402 and 403. The Applicant shall ensure that contractors implement a fugitive dust control program pursuant to the provisions of SCAQMD Rules 402 and 403. This program shall include, but not limited to the following: • Prior to issuance of any grading permit, the City Engineer and Senior Building Inspector shall confirm that the grading plan and building plans stipulate that, in compliance	Athens Services / City of Irwindale City Engineer and Senior Building Inspector; to be observed during twice yearly inspections	Prior to issuance to any grading permit	Notes on grading and building plans; twice yearly inspections	

Table A-1
Irwindale Materials Recovery Facility and Transfer Station Project EIR
Mitigation Monitoring and Reporting Program

Mitigation Measure Number	*Mitigation Measure*	*Monitoring/Reporting Responsibility*	*Mitigation Timing*	*Method of Verification*	*City Mitigation Verification Signature/Date*
	with SCAQMD Rule 403, fugitive dust shall be controlled by the applicable best available control measures listed in Table 1 of Rule 403. • Water or a stabilizing agent shall be applied at least three times daily, preferably in the mid-morning, afternoon, and after work is done for the day, to exposed surfaces including graded and disturbed areas in sufficient quantity to prevent generation of dust plumes. • Track-out shall not extend 25 feet or more from an active operation and track-out shall be removed at the conclusion of each workday. The contractor shall use a gravel apron, 25 feet long by road width, or a pipe-grid track-out control device to reduce mud/dirt track-out from active operations and unpaved truck exit routes.				

Table A-1
Irwindale Materials Recovery Facility and Transfer Station Project EIR
Mitigation Monitoring and Reporting Program

Mitigation Measure Number	*Mitigation Measure*	*Monitoring/Reporting Responsibility*	*Mitigation Timing*	*Method of Verification*	*City Mitigation Verification Signature/Date*
	• A wheel washing system shall be installed and used to remove bulk material from tires and vehicle undercarriages before vehicles exit the project site. • All trucks hauling dirt, sand, soil, or other loose materials are to be tarped with a fabric cover and maintain a freeboard height of 12 inches. • Traffic speeds on unpaved roads shall be limited to 15 miles per hour. • Operations on unpaved surfaces shall be suspended when winds exceed 25 miles per hour. • On-site stock piles shall be covered or watered at least twice per day.				

Table A-1
Irwindale Materials Recovery Facility and Transfer Station Project EIR
Mitigation Monitoring and Reporting Program

Mitigation Measure Number	*Mitigation Measure*	*Monitoring/Reporting Responsibility*	*Mitigation Timing*	*Method of Verification*	*City Mitigation Verification Signature/Date*
	• The Applicant shall use street sweepers (using reclaimed water if available) that comply with SCAQMD Rules 1186 and 1186.1.				
MM AQ-2	**Construction Equipment** The Applicant shall ensure that construction equipment is properly tuned and maintained in accordance with manufacturer's specifications to ensure minimum emissions under normal operations.	Construction Contractor, reporting to City of Irwindale City Engineer	Construction	Notes on construction plans; site inspection	
MM AQ-3	**Electricity** Electricity from power poles rather than temporary diesel- or gasoline-powered generators shall be used, where available.	Athens Services; subject to the review and approval of City of Irwindale Building Inspector	Construction	Notes on construction plans; site inspection	
MM AQ-4	**Diesel Trucks** Heavy-duty diesel trucks shall be properly tuned and maintained to manufacturers' specifications to ensure minimum emissions under normal operations.	Athens Services; reporting to City of Irwindale City Engineer annually	Life of Project	Notes on construction plans; site inspection	
MM AQ-5	**Smog Alerts**	Athens Services /	Life of Project	Site inspection	

Table A-1
Irwindale Materials Recovery Facility and Transfer Station Project EIR
Mitigation Monitoring and Reporting Program

Mitigation Measure Number	*Mitigation Measure*	*Monitoring/Reporting Responsibility*	*Mitigation Timing*	*Method of Verification*	*City Mitigation Verification Signature/Date*
	Heavy equipment operations shall be discontinued during first and second stage smog alerts.	City of Irwindale Code Enforcement to inspect site in the event of a smog alert			
MM AQ-6	**Construction Equipment** The use of 2010 model or newer construction equipment shall be required, where feasible.	Construction Contractor / City of Irwindale Code Enforcement	Construction	Notes on construction plans; site inspection	
MM AQ-7	**Construction Equipment** Older (prior to 2010 model year) construction equipment shall be retrofitted with appropriate emission control devices (Tier 2 or better) prior to onsite use.	Construction Contractor / City of Irwindale Code Enforcement	Construction	Notes on construction plans; site inspection	
MM AQ-8	**Heavy Duty Equipment** Prior to commencement of operations, the Applicant shall develop a plan demonstrating that the off-road equipment (more than 50 horsepower) to be used in the construction project (i.e., owned, leased, and subcontractor vehicles) would achieve a project wide fleet-average 20 percent NO_x reduction and 85 percent PM reduction compared to the most recent CARB	Athens Services and City of Irwindale Senior Building Inspector	Construction	City reviews plan.	

Table A-1
Irwindale Materials Recovery Facility and Transfer Station Project EIR
Mitigation Monitoring and Reporting Program

Mitigation Measure Number	*Mitigation Measure*	*Monitoring/Reporting Responsibility*	*Mitigation Timing*	*Method of Verification*	*City Mitigation Verification Signature/Date*
	fleet average (i.e., Tier 2 equipment or better). Acceptable options for reducing emissions include the use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, add-on devices such as particulate filters, and/or other options as such are available.				
MM AQ-9	**Truck Idling** All construction vehicles, both on- and off-site, and construction equipment idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations). The construction contractor shall post visible signage within construction equipment operator components notifying equipment operators of the prohibiting against idling in excess of five minutes. The construction contractor shall	Athens Services and City of Irwindale Senior Building Inspector	Construction	Awareness training, notes on construction plans, site inspection	

Table A-1
Irwindale Materials Recovery Facility and Transfer Station Project EIR
Mitigation Monitoring and Reporting Program

Mitigation Measure Number	*Mitigation Measure*	*Monitoring/Reporting Responsibility*	*Mitigation Timing*	*Method of Verification*	*City Mitigation Verification Signature/Date*
	provide awareness training to equipment operators regarding idling limits.				
MM AQ-10	**Paint** Contractors shall use varying-pressure-low-volume paint applicators or other application techniques with equivalent or higher transfer efficiency.	Athens Services and City of Irwindale Senior Building Inspector	Construction	Site inspection.	
MM AQ-11	**Paint** Use super compliant VOC (and ROG) coatings for all architectural applications. (Rule 1113 of the SCAQMD established a schedule of VOC limits for architectural coatings. However, many manufacturers have reformulated their coatings to levels well below these limits. These are referred to as "Super-Compliant" and contain less than 10 grams of VOC per liter.)	Athens Services and City of Irwindale Senior Building Inspector	Construction	Review and approval of final building plans.	
MM AQ-12	**Fueling Station**	Athens Services and City of Irwindale Senior Building Inspector City of	Life of Project	City verifies during twice yearly inspections	

Table A-1
Irwindale Materials Recovery Facility and Transfer Station Project EIR
Mitigation Monitoring and Reporting Program

Mitigation Measure Number	*Mitigation Measure*	*Monitoring/Reporting Responsibility*	*Mitigation Timing*	*Method of Verification*	*City Mitigation Verification Signature/Date*
	Applicant shall properly maintain ROG emission control devices within the gasoline dispensing station pursuant to SCAQMD Rule 461.	Irwindale to observe during twice yearly inspections			
MM AQ-13	**Fueling Station** All gasoline dispensing facilities shall meet the requirements of SCAQMD's Rule 461 to limit ROG emissions from gasoline dispensing facilities, including but not limited to using CARB-certified vapor recovery systems and spill boxes and periodic testing of the equipment.	Athens Services and City of Irwindale Senior Building Inspector to observe during twice yearly inspections	Life of Project	City verifies during twice yearly inspections	
MM AQ-14	**Heavy Duty Diesel Trucks** Heavy-duty diesel trucks shall be properly tuned and maintained to manufacturers' specifications to ensure minimum emissions under normal operations.	Athens Services and City of Irwindale Senior Building Inspector to observe during twice yearly inspections	Life of Project	City verifies during twice yearly inspections	
MM AQ-15	**Transfer Trucks** The use of 2010 model or newer transfer trucks shall be required whenever older vehicles are replaced or upgraded, per SCAQMD Rule 1193.	Athens Services and City of Irwindale Senior Building Inspector to observe during twice yearly inspections	Life of Project	City verifies during twice yearly inspections	

Table A-1
Irwindale Materials Recovery Facility and Transfer Station Project EIR
Mitigation Monitoring and Reporting Program

Mitigation Measure Number	*Mitigation Measure*	*Monitoring/Reporting Responsibility*	*Mitigation Timing*	*Method of Verification*	*City Mitigation Verification Signature/Date*
MM AQ-16	**Transfer Trucks** At project start, all heavy duty trucks entering the property must meet or exceed 2010 engine emission standards specified in California Code of Regulations Title 13, Article 4.5, Chapter 1, Section 2025.	Athens Services and City of Irwindale Senior Building Inspector to observe during twice yearly inspections	Life of Project	City verifies during twice yearly inspections	
MM AQ-17	**Off –Road Heavy Duty Equipment** The Project Applicant shall require all-on-site off-road heavy-duty equipment (loaders, excavators, skid steer) to meet USEPA Tier 3 emissions standards (or Tier 4 emission standards based on availability at the initiation of the Project). In addition, these on-site off-road construction equipment used in operation of the Project shall be outfitted with the Best Available Control Technology (BACT) devices certified by CARB. Any emissions control device used by the applicant shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations. A copy of the certified tier specification for each piece of heavy-	Athens Services and City of Irwindale Senior Building Inspector	Prior to the operational phase	A copy of the certified tier specifications for each piece of heavy duty equipment, BACT documentation, and CARB or SCAQMD operating permit shall be provided to the City prior to operation of the Project.	

Table A-1
Irwindale Materials Recovery Facility and Transfer Station Project EIR
Mitigation Monitoring and Reporting Program

Mitigation Measure Number	*Mitigation Measure*	*Monitoring/Reporting Responsibility*	*Mitigation Timing*	*Method of Verification*	*City Mitigation Verification Signature/Date*
	duty equipment, BACT documentation, and CARB or SCAQMD operating permit shall be provided to the City prior to operation of the Project.				
MM AQ-18	**Diesel Trucks Idling Times** All diesel truck operators shall strictly abide by the applicable State law requirements for idling, as described in the Airborne Toxic Control Measure (CCR, Title 13, Section 2485), which limits vehicles with gross vehicular weight ratings of more than 10,000 pounds to no more than five minutes of idling of the primary engine or the diesel-fueled auxiliary power system at any location. Trucks engaging in unloading at the Project site and load weighing/financial transactions at the scale house shall be prohibited from idling in excess of five minutes. Visible signage notifying truck operators of idling limits shall be posted near all site entrances. In the event third party collection haulers were required, all diesel truck operators that use the facility would be encouraged, and if reasonably possible by Athens to require contractually, to apply in good faith for funding from an established CARB or SCAQMD	Athens Services and City of Irwindale Senior Building Inspector to observe during twice yearly inspections	Life of Project	The building plans shall indicate the placement of signage.	

Table A-1
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Mitigation Monitoring and Reporting Program

Mitigation Measure Number	*Mitigation Measure*	*Monitoring/Reporting Responsibility*	*Mitigation Timing*	*Method of Verification*	*City Mitigation Verification Signature/Date*
	funding program to either retrofit or replace engines that are older than 2007 model year.				
MM AQ-19	**Odor Control** Applicant shall minimize odors during operation of the MRF/TS by properly maintaining design features and equipment designed to reduce and eliminate odors and pursuant to provisions of SCAQMD Rule 410.	Athens Services and City of Irwindale Senior Building Inspector to observe during twice yearly inspections	Life of Project	City verifies during twice yearly inspections.	
MM AQ-20	**Odor Control** On-Site Management Plan No. 3; Athens Services Odor Control Program shall include a requirement that any and all odor complaints shall be referred directly to the City of Irwindale Community Development Department Code Enforcement Division. Odor complaints shall be substantiated by the City as follows: a. Inspection and confirmation by Code Enforcement Division Staff; and/or b. Inspection and confirmation by the SCAQMD; and/or	Athens Services and City of Irwindale Senior Building Inspector to observe during twice yearly inspections	Life of Project	City verifies during twice yearly inspections.	

Table A-1
Irwindale Materials Recovery Facility and Transfer Station Project EIR
Mitigation Monitoring and Reporting Program

Mitigation Measure Number	*Mitigation Measure*	*Monitoring/Reporting Responsibility*	*Mitigation Timing*	*Method of Verification*	*City Mitigation Verification Signature/Date*
	c. A qualified consultant, as determined and selected by the City, will be retained to collect samples to quantify odor intensity using a Nasal Ranger or other comparable instrument. Such consultant shall be retained by the City at the sole expense of the Applicant. Facility representatives shall conduct an odor survey as soon as practical, but not to exceed 2 hours after receiving an odor complaint or notification from the SCAQMD or the LEA. Upon substantiation of an odor complaint, Applicant shall meet with the City within 48 hours to determine actions to remedy the odor complaint. A detailed action plan shall be prepared within 72 hours of the meeting identifying the steps to be taken to remedy the issue. All remedies shall be at the sole expense of the Applicant, and shall be implemented / installed as soon as feasible.				
MM AQ-21	**Odor Control** As a means to address public concerns and complaints regarding odors, the Project Applicant shall publicly post the SCAQMD odor complaint phone number [1-	Athens Services	Life of Project	The building plans shall indicate the	

Table A-1
Irwindale Materials Recovery Facility and Transfer Station Project EIR
Mitigation Monitoring and Reporting Program

Mitigation Measure Number	*Mitigation Measure*	*Monitoring/Reporting Responsibility*	*Mitigation Timing*	*Method of Verification*	*City Mitigation Verification Signature/Date*
	800-CUT-SMOG (1-800-288-7664)] and website address (http://www.aqmd.gov/complain/reporting_aq_problems.html) on signs that are visible from the street at all entrances to the MRF/TS facility.			placement of signage.	
MM AQ-22	**GHG Offset Credits** The Project Applicant shall purchase verifiable and certified GHG offset credits and provide verification to the City of the purchase annually. Off-set credits shall be purchased in an amount that is based on one of the following: (1) Offset-credits for 48,803 metric tons or, (2) Offset-credits in an amount computed on the basis of the Project's actual GHG emissions the previous year compared to emissions from the 2013 baseline condition-minus 10,000 metric tons of CO_2e per year. The calculation must be prepared and certified by a professional Air Pollution expert, acceptable to the City as determined by the Director of Community Development.	Athens Services	Life of Project	Applicant provides verification of purchase to the City annually	

Table A-1
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Mitigation Monitoring and Reporting Program

Mitigation Measure Number	*Mitigation Measure*	*Monitoring/Reporting Responsibility*	*Mitigation Timing*	*Method of Verification*	*City Mitigation Verification Signature/Date*
	When feasible, offset purchases would be prioritized by proximity to the Project Site, with greatest preference given to projects within the jurisdictional boundaries of the SCAQMD, then California, and then finally nationally. Carbon offsets are widely available in a number of markets (e.g., GreenX and IntercontinentalExchange) and exists at levels that greatly exceed the potential needs of the Proposed Project."				
BIOLOGY					
MM BIO-1	**Pre-Construction Survey** The Applicant shall comply with the regulatory requirements of the federal Migratory Bird Treaty Act and California Fish and Game Codes §3503, §3503.5, and §3513 regarding Proposed Project grading and construction activities. *Pre-construction Surveys for Nesting Birds* The Applicant shall implement the following protective measures to ensure implementation of the Migratory Bird Treaty Act and compliance with State	Athens Services / Qualified Biologist selected and overseen by City of Irwindale	Prior to initial grading permit	City verifies that construction/grading documents include required language.	

Table A-1
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Mitigation Monitoring and Reporting Program

Mitigation Measure Number	*Mitigation Measure*	*Monitoring/Reporting Responsibility*	*Mitigation Timing*	*Method of Verification*	*City Mitigation Verification Signature/Date*
	regulations during construction. To the extent feasible, the Applicant and/or the construction contractor(s) shall trim/remove all vegetation/tree limbs necessary for Proposed Project construction between September 1 and January 31. Should construction activities or vegetation removal commence between February 1 to August 31, pre-construction surveys for nesting birds shall be conducted for any affected tree(s) located within the public right of way by a qualified biologist to ensure that no active nests would be disturbed during project implementation. A preconstruction survey shall be conducted no more than 14 days prior to the initiation of demolition/construction activities. During this survey, the qualified person shall inspect the street trees located within the public right of way and areas immediately adjacent to the project site for nests. If an active nest is found close enough to the construction area to be disturbed by these activities, the qualified biologist, in consultation with the California Department of Fish and Game, shall determine the extent of a construction-free buffer zone to be established around the nest until the young have fledged.				

Appendix A: Mitigation Monitoring and Reporting Program

Table A-1
Irwindale Materials Recovery Facility and Transfer Station Project EIR
Mitigation Monitoring and Reporting Program

Mitigation Measure Number	*Mitigation Measure*	*Monitoring/Reporting Responsibility*	*Mitigation Timing*	*Method of Verification*	*City Mitigation Verification Signature/Date*
CULTURAL RESOURCES					
MM CR-1	**Native American Monitor** The Applicant and City shall consult with the Gabrieleño Band of Mission Indian Tribe, prior to on-site earthwork activities, to invite a Native American Monitor at the project site for the excavation and ground disturbance activities.	Athens Services / City of Irwindale Senior Planner / Gabrieleño Band of Mission Indian Tribe	Prior to earthwork	City verifies consultation with the Gabrieleño Band of Mission Indian Tribe.	
MM CR-2	**Archaeological Resources** In the event any previously undetected archaeological resources are encountered during project construction, all excavation and ground disturbance activities shall cease and a qualified archaeologist will be contacted within 24 hours to evaluate the nature and significance of any such discoveries. If a discovery proves to be significant, additional work (such as data recovery excavation) may be warranted. Work may be resumed with approval of the attending archeologist and City Staff. Further, should unforeseen artifacts become uncovered during site grading, the Applicant would be required to adhere to all City and State of California procedures, including Section 21083.2(i) of the CEQA Statutes and Section 15064.5 of the CEQA Guidelines	Athens Services / City of Irwindale Senior Planner / City-approved qualified archeologist	Life of Project	All measures shall be printed on construction documents and project plans.	

Table A-1
Irwindale Materials Recovery Facility and Transfer Station Project EIR
Mitigation Monitoring and Reporting Program

Mitigation Measure Number	*Mitigation Measure*	*Monitoring/Reporting Responsibility*	*Mitigation Timing*	*Method of Verification*	*City Mitigation Verification Signature/Date*
	regarding stoppage of work, handling of discovered materials, and notification of proper authorities to ensure that the construction/operation of the MRF/TS project would not have an adverse effect on cultural resources.				
MM CR-3	**Paleontological / Geological Resources** In the event that any unknown (remaining) paleontological or geological resources are encountered during project implementation, the Applicant shall cease earthwork immediately and contact a qualified paleontologist or geologist within 24-hours to evaluate the nature and significance of any such discoveries. Work may be resumed with approval of the attending archeologist and City Staff.	Athens Services / City of Irwindale Senior Planner / City-approved qualified paleontologist or geologist	Life of Project	All measures shall be printed on construction documents and project plans.	
MM CR-4	**Human Remains** If human remains are discovered during project activities, the City of Irwindale Planning Department and the Los Angeles County Coroner's office shall be notified within 24 hours under state law (California Health and Safety Code § 7050.5) and all activities in the immediate area of the find shall cease until appropriate and lawful measures have been taken. If	Athens Services / City of Irwindale Senior Planner	Life of Project	All measures shall be printed on construction documents and project plans..	

Table A-1
Irwindale Materials Recovery Facility and Transfer Station Project EIR
Mitigation Monitoring and Reporting Program

Mitigation Measure Number	*Mitigation Measure*	*Monitoring/Reporting Responsibility*	*Mitigation Timing*	*Method of Verification*	*City Mitigation Verification Signature/Date*
	the Coroner determines that the remains are Native American, the NAHC shall also be contacted (California Public Resources Code § 5097.98). In accordance with Section 5097.98 of the *California Public Resources Code*, the NAHC shall designate a Most Likely Descendent, who may make recommendations concerning the disposition of the remains in consultation with the City and the project archaeologist.				
GEOLOGY					
PDF GEO-1	**Geotechnical Report** The Applicant shall have a California Registered Geotechnical Engineer prepare a site-specific Geotechnical Report to the satisfaction of the City Engineer prior to issuance of the grading permit. This report will be undertaken in accordance with the CGS Guidelines for Evaluating and Mitigating Seismic Hazards in California. This report will provide design specification to assure the Proposed Project is developed within accepted federal, State, and local laws, regulations, and guidelines.	Athens Services / City of Irwindale Engineer	Prior to issuance of a grading permit	City review and approval of geotechnical report.	

Table A-1
Irwindale Materials Recovery Facility and Transfer Station Project EIR
Mitigation Monitoring and Reporting Program

Mitigation Measure Number	*Mitigation Measure*	*Monitoring/Reporting Responsibility*	*Mitigation Timing*	*Method of Verification*	*City Mitigation Verification Signature/Date*
MM WQ-1	**NPDES Permit Requirements** The Applicant shall comply with the project-specific National Pollutant Discharge Elimination System (NPDES) Permit requirements (such as the Storm Water Pollution Prevention Plans (SWPPPs) and Best Management Practices (BMPs) including: limiting construction access routes and stabilizing access points; staking/marking construction limits; protection of cut and fill surfaces from sheet, rill and gully erosion; stabilizing temporarily denuded areas with seeding, mulching, jute netting, hay bales and silt fences or other methods; designating specific areas for the stockpiling, handling, preparation and disposal of construction materials; quickly establishing groundcover and landscaping of areas designated to remain pervious; and/or waste material and litter control to prevent existing drainages).	City Engineer	Prior to issuance of grading permit	City verifies developer has a SWPP approved by the LARWQCB per state requirements	
HAZARDS AND HAZARDOUS MATERIALS					
PDF HAZ-1	**Safety Committee** The Applicant shall form a Safety Committee and include a minimum of one (1) City Staff personnel as a participating member. The Safety Committee shall function with two roles. One function will be to annually review the *On-Site Management Plans.* The second	Athens Services/City of Irwindale	Annual review of On-Site Management Plans, monthly	Review of On-Site Management Plans and monthly review of the MRF/TS	

Table A-1
Irwindale Materials Recovery Facility and Transfer Station Project EIR
Mitigation Monitoring and Reporting Program

Mitigation Measure Number	*Mitigation Measure*	*Monitoring/Reporting Responsibility*	*Mitigation Timing*	*Method of Verification*	*City Mitigation Verification Signature/Date*
	function will include monthly review of the MRF/TS Daily Operational Report for waste stream capacity review. On-Site Management Plans The purpose of the annual review shall be to confirm or update the standard of practice for the management plans. The review will include utilizing information obtained from operational records, vendors, and suggestions from insurance companies. MRF/TS Operational Report The purpose of the monthly review shall be to ensure compliance with the 6,000 tons per day (maximum).		review of Daily Operational Reports.	Daily Operational Report for waste stream capacity.	
PDF HAZ-2	**On-Site Management Plans** The Applicant shall prepare and have approved by the City *On-Site Management Plans.* Any and all future amendments to these management plans must be approved by the City. These plans include: 1) Litter Prevention and Control Plan; 2) Pest Control Plan; 3) Odor Control Plan; 4) Noise Control Plan;	Athens Services	Prior to operation	City approves On-Site Management Plans	

Table A-1
Irwindale Materials Recovery Facility and Transfer Station Project EIR
Mitigation Monitoring and Reporting Program

Mitigation Measure Number	*Mitigation Measure*	*Monitoring/Reporting Responsibility*	*Mitigation Timing*	*Method of Verification*	*City Mitigation Verification Signature/Date*
	5) Hazardous Materials Exclusion and Management Plan; 6) Fire Prevention, Control and Mitigation Plan; 7) Emergency Action Plan; and 8) Emergency Response Training Plan				
NOISE					
MM N-1	**Ambient Noise** Prior to construction, the construction contractor shall obtain authorization from Irwindale's building inspector to exceed the ambient base noise level by more than five (5) dBA during construction activities at the property boundary for industrial zoned land use.	Athens Services / City of Irwindale Building Inspector	Prior to construction	Authorization from City Building inspector.	
MM N-2	**Construction Hours of Operation** The construction contractor shall limit all construction activities from 7 a.m. to 7 p.m. Monday through Saturday. No construction activity shall be conducted on Sundays or during legal holidays.	City of Irwindale Building Inspector	During construction	Construction hours shall be printed construction documents and project plans	
MM N-3	**Soundwall** The construction contractor shall construct the soundwall around the site perimeter during the initial construction phase to establish the means for noise	Athens Services / City of Irwindale Building Inspector	Initial construction phase [within first 30 days]	Site inspection	

Table A-1
Irwindale Materials Recovery Facility and Transfer Station Project EIR
Mitigation Monitoring and Reporting Program

Mitigation Measure Number	*Mitigation Measure*	*Monitoring/Reporting Responsibility*	*Mitigation Timing*	*Method of Verification*	*City Mitigation Verification Signature/Date*
	reduction during subsequent construction and operations. In the event that the soundwall is not constructed prior to construction of the buildings, a temporary sound barrier or curtain shall be used as a temporary measure to reduce noise impacts (by at least 5 decibels) until the soundwall can be constructed.				
MM N-4	**Haul Route** The construction contractor shall operate and maintain a City-approved haul truck traffic route restricted to major traffic arteries, and prohibited from using Baldwin Park Boulevard south of Live Oak Avenue.	Athens Services, subject to review and approval of City Engineer	Prior to construction	City approves haul route.	
MM N-5	**Construction Equipment** The construction contractor shall provide construction equipment equipped, operated, and maintained with manufacturer recommended mufflers or the equivalent. The construction contractor shall locate staging and delivery areas as far as feasible from sensitive land uses or adjacent occupied buildings and schedule deliveries during daytime hours when residential areas south of the project site are less susceptible to annoyance from outside noise.	Athens Services / City of Irwindale Building Inspector	During construction	All measures shall be printed on construction documents and project plans.	

Table A-1
Irwindale Materials Recovery Facility and Transfer Station Project EIR
Mitigation Monitoring and Reporting Program

Mitigation Measure Number	*Mitigation Measure*	*Monitoring/Reporting Responsibility*	*Mitigation Timing*	*Method of Verification*	*City Mitigation Verification Signature/Date*
MM N-6	**Idling Time** The construction contractor shall post rules visible to drivers that require turning-off construction equipment when not in operation (for more than 5 minutes). The construction contractor shall shield stationary equipment operating under full power for more than 60 minutes that would otherwise not be shielded by the perimeter soundwall.	Athens Services / City of Irwindale Building Inspector	During construction	All measures shall be printed on construction documents and project plans.	
MM N-7	**Ambient Noise** The Applicant shall implement all of the following: • For the western/southwestern property boundary (for approximately the first 450 feet of the property boundary north of Live Oak Avenue), the Applicant shall construct the 8-foot perimeter masonry soundwall on top of a two-foot berm so that the effective height of the soundwall would be 10 feet (with the	Athens Services City of Irwindale Building Inspector and Senior Engineer	Soundwall and noise exceedance permit prior to operation. Ongoing nighttime operations.	Site inspection for soundwall; Noise complaints notifications within 24 hours; Permit for sound level exceptions prior to operations.	

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	exception that the berm is not required to be constructed on any utility easements). • The Applicant shall modify nighttime operations (10 p.m. – 7 a.m.) that result in verified noise complaints to eliminate objectionable noise during the nighttime hours. The applicant shall notify the City of any noise complaints received within 24 hours of receiving the complaint and provide a proposed amendment to the On-Site Management Plans to demonstrate a reduction in ambient noise within one (1) week, subject to review and approval of the City upon a finding that the amendment will result in compliance with adopted noise standards of the City of Irwindale and the City of Baldwin Park. • The Applicant shall obtain authorization by permit from the City to exceed ambient noise levels from facility operations on the				

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Mitigation Measure Number	*Mitigation Measure*	*Monitoring/Reporting Responsibility*	*Mitigation Timing*	*Method of Verification*	*City Mitigation Verification Signature/Date*
	western/northwestern boundary and the southern boundary (for 5 a.m. to 7 a.m.) pursuant to IMC Section 9.28.120. If the applicant does not obtain authorization by permit to exceed noise levels, the applicant will be required to modify operations to reduce noise levels between 5 a.m. to 7 a.m. to 65 dBA.				
TRAFFIC					
MM T-1	**Off-Site Improvement** To mitigate potential traffic impacts at I-605 NB Off-Ramp (NS) / Live Oak Avenue (EW)(#8), the developer will be required to construct or fund the following improvement: • Install a traffic signal. • Construct a 2nd northbound right turn lane. • Provide a 3rd westbound through lane by modifying the existing raised median. This will also provide additional queuing storage for the	Athens Services, subject to review and approval of City Engineer and Senior Building Inspector and Caltrans	Prior to issuance of certificates of occupancy	City reviews and approves street plans.	

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	westbound left turn lane at the intersection of I-605 SB On-Ramp (NS) / Live Oak Avenue (EW).				
MM T-2	**Off-Site Improvement** To mitigate potential traffic impacts to I-605 SB Off-Ramp (NS) / Arrow Highway (EW)(#3), the developer will be required to construct or fund the following improvements: • Construct a 2nd southbound left turn lane.	Athens Services, subject to review and approval of City Engineer and Senior Building Inspector and Caltrans	Prior to issuance of certificates of occupancy	City reviews and approves street plans.	
MM T-3	**Off-Site Improvement** To mitigate potential traffic impacts to Arrow Highway (NS) / Driveway 1 (EW), the Applicant shall be required to do the following: Prior to commencement of operations, the Applicant shall install a traffic signal and construct the intersection with the following geometrics: • Northbound Approach: One left turn	Athens Services, subject to review and approval of City Engineer and Senior Building Inspector and Caltrans	Prior to issuance of certificates of occupancy	City reviews and approves street plans.	

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	lane (two way turn lane) and two through lanes. • Southbound Approach: Two through lanes and one right turn lane. • Eastbound Approach: One left turn lane and one right turn lane. • Westbound Approach: N/A				
MM T-4	**Off-Site Improvement** To mitigate potential traffic impacts to Arrow Highway (NS) / Driveway 2 (EW), the Applicant shall be required to do the following: Prior to commencement of operations, the Applicant shall install a stop control on the eastbound approach and construct the intersection with the following geometrics: • Northbound Approach: One left turn lane (two way turn lane) and two through lanes.	Athens Services, subject to review and approval of City Engineer and Senior Building Inspector and Caltrans	Prior to issuance of certificates of occupancy	City reviews and approves street plans.	

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Mitigation Measure Number	*Mitigation Measure*	*Monitoring/Reporting Responsibility*	*Mitigation Timing*	*Method of Verification*	*City Mitigation Verification Signature/Date*
	• Southbound Approach: Two through lanes and one right turn lane. • Eastbound Approach: One shared left turn and right turn lane. • Westbound Approach: N/A				
MM T-5	**Off-Site Improvement** To mitigate the potential impact to Driveway 3 – Baldwin Park Boulevard (NS) / Live Oak Avenue (EW), the Applicant shall be required to do the following: Prior to commencement of operations, the Applicant shall modify traffic signal to include Project Driveway 3 (north leg) and construct the intersection with the following geometrics: • Northbound Approach: Two left turn lanes and one shared through-right turn lane. • Southbound Approach: One left turn lane and one shared through-right turn lane. • Eastbound Approach: One left turn lane (100-	Athens Services, subject to review and approval of City Engineer and Senior Building Inspector and Caltrans	Prior to issuance of certificates of occupancy	City reviews and approves street plans.	

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	foot pocket length), two through lanes, and one defacto right turn lane. • Westbound Approach: One left turn lane, two through lanes, and one right turn lane.				
MM T-6	**On-Site Improvement** To mitigate the potential impact of conflicting project turning movements in the vicinity of Driveway 1 the Applicant shall be required to do the following: Prior to commencement of operations, the Applicant shall make the following changes to the convenience store/gas pump access configuration: • Provide a right-in/right-out access for the convenience store located between Driveway 1 and Driveway 2 along Arrow Highway. • Eliminate convenience store Driveway located immediately to the north of Driveway 1 along Arrow Highway. • Move Convenience Store/Gas pump access further into the site (away from signalized	Athens Services, subject to review and approval of City Engineer and Senior Building Inspector and Caltrans	Prior to issuance of certificates of occupancy	City reviews and approves street plans	

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	intersection, increasing the throat length of the driveway). • Provide a 28-foot internal access driveway connecting MRF main driveway to convenience store with gas pumps. • On-site traffic signing and striping should be implemented in conjunction with detailed construction plans for the project site. • Sight distance at the project driveways should be reviewed with respect to standard Caltrans and City of Irwindale sight distance standards at the time of preparation of final grading, landscape and street improvement plans.				
WATER QUALITY AND HYDROLOGY					
PDF WQ-1	**LEED Certification** The Proposed Project shall be conditioned by the City to be certifiable at the Silver level utilizing U.S. Green Building Council's (USGBC) Leadership in Energy and Environmental Design (LEED) green building rating systems.	Athens Services / City of Irwindale Senior Planner	Life of Project	Applicant to provide written evidence to the City that a LEED Certified	

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	The LEED[1] rating system requires water efficiency in the design of a project through water use reduction, efficient landscaping, and innovative wastewater treatment technologies, as well as sustainable site selection; energy performance standards; materials and resource selection criteria; and indoor air quality practices.			designation has been met.	

[1] LEED is a building tool that addresses the entire building lifecycle recognizing best-in-class building strategies. The LEED certification of a project is a program that provides third-party verification of green buildings based on a credit system for the categories of: sustainable site selection; water efficiency; energy performance; materials and resource selection; and indoor air quality. (http://www.usgbc.org/leed/rating-systems)

ATHENS-IRWINDALE MATERIALS RECOVERY FACILITY AND TRANSFER STATION

UPDATED TRAFFIC IMPACT ANALYSIS

CITY OF IRWINDALE

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ES EXECUTIVE SUMMARY

The purpose of this updated traffic impact analysis is to evaluate the proposed materials recovery and transfer station from a traffic circulation standpoint and verify the findings of the February 27, 2014 traffic analysis for this site. The proposed project is located east of the I-605 Freeway, on the northwesterly quadrant of Arrow Highway and Live Oak Avenue in the City of Irwindale.

Exhibit ES-A illustrates the general vicinity of the project site. As shown on Exhibit ES-A, the proposed project is located east of the I-605 Freeway in the City of Irwindale. The proposed project consists of three (3) primary areas: 1.) Materials Recovery Facility and Transfer Station, 2.) Convenience Store / Fueling Facility and 3.) Administrative/Visitor Center and Maintenance Building. The Materials and Recovery Facility and Transfer Station would include the majority of the building development totaling approximately 228,432 square feet. The Convenience Store / Fueling Facility would be a separate structure located on the north-east portion of the project site totaling approximately 2,390 square feet. The Administrative/Visitor Center and Maintenance Building is approximately 15,200 square feet. The project is estimated to be constructed and become operational in 2017. The project is expected to process approximately 6,000 tons of material per day with up to 345 employees.

Exhibit ES-B illustrates the intersection analysis locations which include the proposed site access driveways, adjacent roadways, and intersections around the site, including the major signalized intersections providing access from the site to the nearest regional corridor (I-605 Freeway). The intersection analysis locations have been selected based on locations where the project is anticipated to contribute 50 (or more) peak hour trips. The intersection analysis locations have also been refined based on the traffic study scoping presented in Appendix "A" and discussions with City staff. The San Gabriel Freeway (I-605) and the Foothill Freeway (I-210) ramps located in the City of Irwindale are the only Los Angeles County Congestion Management (CMP) - designated facilities in the City of Irwindale. Table ES-1 summarizes the intersection analysis locations identified on Exhibit ES-B:

Table ES-1 Intersection Analysis Locations

ID	Intersection Location	Traffic Control	Jurisdiction
1	Live Oak Av. (West) (NS) / Arrow Hwy. (EW)	Signalized	Irwindale
2	Avenida Barbosa St. (NS) / Arrow Hwy. (EW)	Signalized	Irwindale
3	I-605 SB Off-Ramp (NS) / Arrow Hwy. (EW)	Signalized	Caltrans
4	I-605 NB On-Ramp/Live Oak Ln. (NS) / Arrow Hwy. (EW)	Unsignalized	Caltrans
5	Arrow Hwy. (NS) / Rivergrade Rd. (EW)	Signalized	Irwindale
6	Stewart Av. (NS) / Rivergrade Rd. (EW)	Signalized	Irwindale
7	I-605 SB On-Ramp (NS) / Live Oak Av. (EW)	Signalized	Caltrans
8	I-605 NB Off-Ramp (NS) / Live Oak Av. (EW)	Unsignalized	Caltrans
9	Graham Access Rd. (NS) / Live Oak Av. (EW)	Signalized	Irwindale
10	Live Oak Ln. (NS) / Live Oak Av. (EW)	Unsignalized	Irwindale
11	Rivergrade Rd. (NS) / Live Oak Av. (EW)	Signalized	Irwindale
12	Stewart Av. (NS) / Live Oak Av. (EW)	Signalized	Irwindale &Baldwin Park
13	Baldwin Park Bl./Dwy. 3 (NS) / Live Oak Av. (EW)	Signalized	Irwindale & Baldwin Park
14	Arrow Hwy. (NS) / Live Oak Av. (EW)	Signalized	Irwindale & Baldwin Park

EXHIBIT ES-A

VICINITY MAP

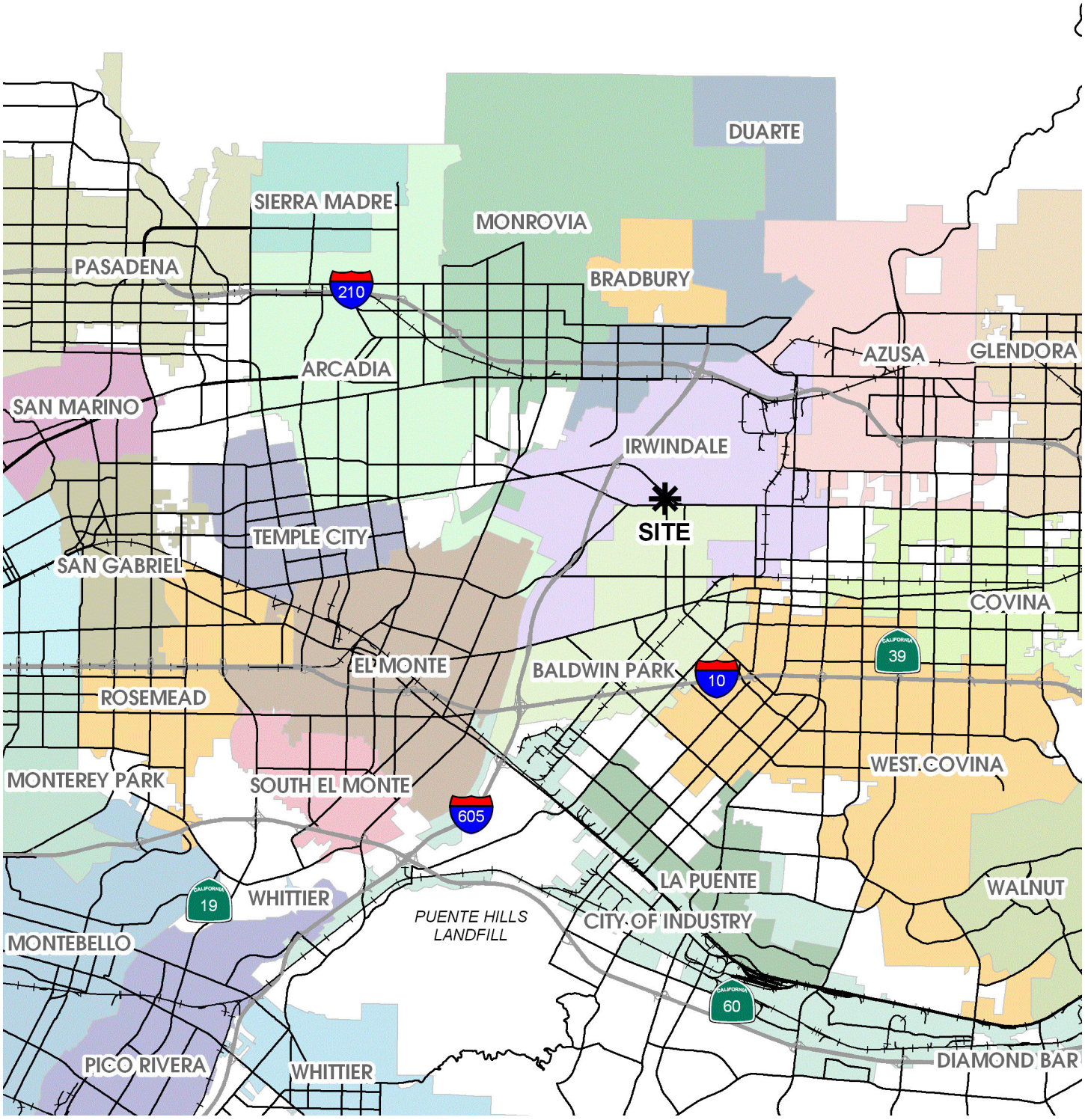
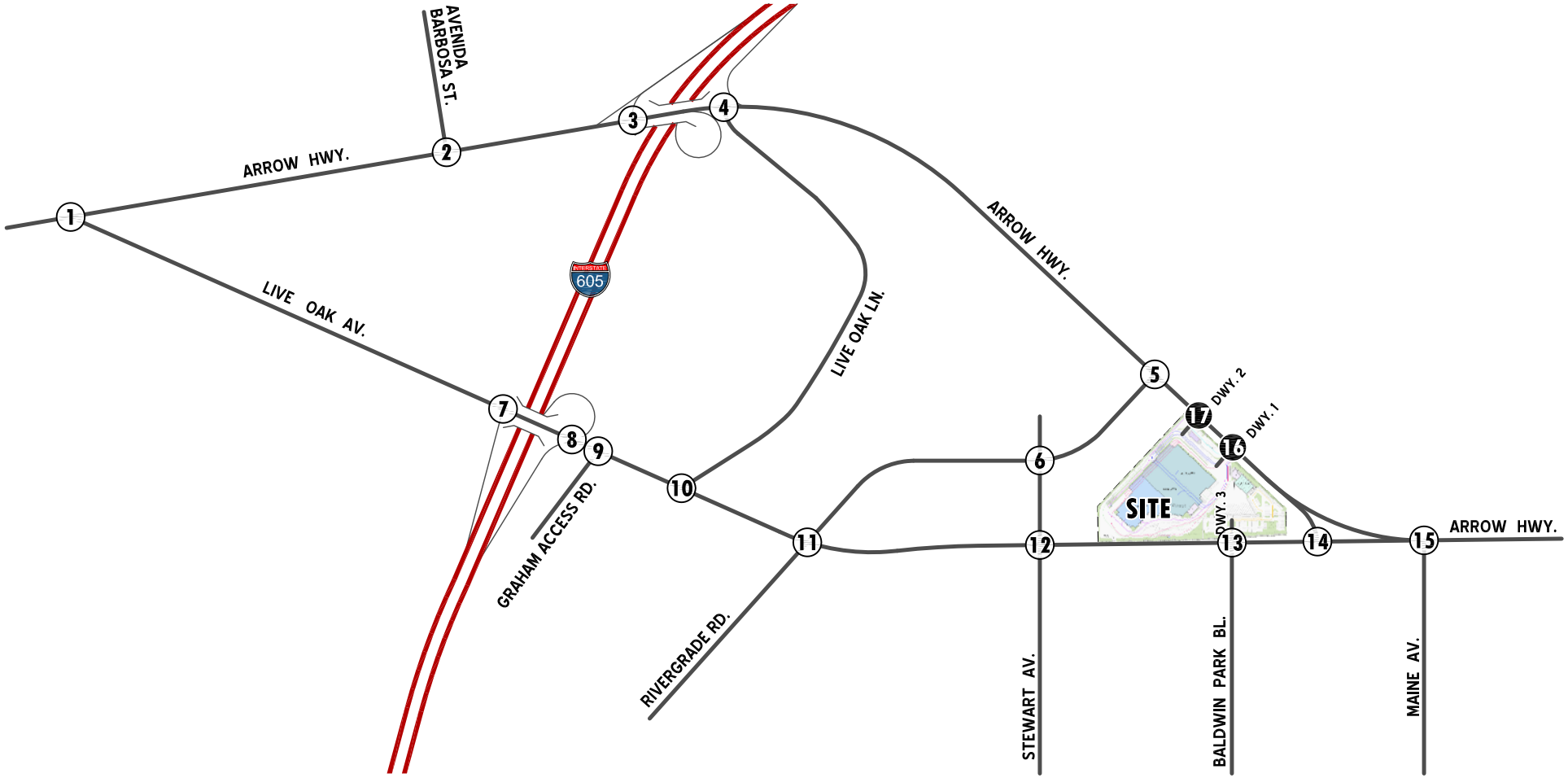


EXHIBIT ES-B

LOCATION MAP



LEGEND:

(15) = EXISTING INTERSECTION ANALYSIS LOCATION

(2) = FUTURE INTERSECTION ANALYSIS LOCATION

N

Table ES-1 Intersection Analysis Locations (Continued)

ID	Intersection Location	Traffic Control	Jurisdiction
15	Maine Av. (NS) / Arrow Hwy. (EW)	Signalized	Irwindale & Baldwin Park
16	Arrow Hwy. (NS) / Dwy. 1 (EW) - *(Future Intersection)*	Signalized	Irwindale
17	Arrow Hwy. (NS) / Dwy. 2 (EW) - *(Future Intersection)*	Unsignalized	Irwindale

Consistent with California Department of Transportation (Caltrans) NOP comments, the freeway mainline analysis locations include the segments on either side of key study area interchanges where operational analyses have been requested. The study area freeway mainline analysis locations include seven (7) I-605 Freeway mainline segments and six (6) I-210 Freeway mainline segments for both directions of flow as shown on Table ES-2:

TABLE ES-2 FREEWAY MAINLINE SEGMENT ANALYSIS LOCATIONS

ID	Freeway Mainline Segments
1	I-605 Northbound, South of Live Oak Avenue
2	I-605 Northbound, Between Live Oak Avenue and Eastbound Arrow Highway Loop On-Ramp
3	I-605 Northbound, Between Eastbound Arrow Highway Loop On-Ramp and Westbound Arrow Highway On-Ramp
4	I-605 Northbound, Immediately North of Arrow Highway On-Ramp
5	I-605 Southbound, Immediately North of Arrow Highway Off-Ramps
6	I-605 Southbound, Between Arrow Highway Off-Ramps and Live Oak Avenue On-Ramps
7	I-605 Southbound, South of Live Oak On-Ramps
8	I-210 Westbound, Immediately east of Irwindale Avenue Westbound Off-Ramp
9	I-210 Westbound, Between Irwindale Avenue Westbound Loop On-Ramp and Irwindale Avenue Westbound Off-Ramp
10	I-210 Westbound, Immediately West of Irwindale Avenue Westbound On-Ramp
11	I-210 Eastbound, Immediately West of Irwindale Avenue Eastbound Off-Ramp
12	I-210 Eastbound, Between Irwindale Avenue Eastbound Off-Ramp and Irwindale Avenue
13	I-210 Eastbound, Immediately East of Irwindale Avenue Eastbound Off-Ramp

Similar to the freeway mainline segments, the study area freeway merge/diverge ramp junction analysis locations include five (5) I-605 Freeway ramp junctions and five (5) I-210 Freeway ramp junctions for both directions of flow as shown on Table ES-3:

TABLE ES-3 FREEWAY MERGE/DIVERGE RAMP JUNCTION ANALYSIS LOCATIONS

ID	Freeway Merge/Diverge Ramp Junctions
1	I-605 Northbound - Off-Ramp at Live Oak Avenue (Diverge)
2	I-605 Northbound - On-Ramp for Eastbound Arrow Highway (Merge)
3	I-605 Northbound - Direct On-Ramp for Westbound Arrow Highway (Merge)
4	I-605 Southbound - Off-Ramp at Arrow Highway (Diverge)
5	I-605 Southbound - On-Ramp at Live Oak Avenue (Merge)
6	I-210 Westbound - Off-Ramp at Irwindale Avenue (Diverge)
7	I-210 Westbound – Loop On-Ramp at Irwindale Avenue (Merge)
8	I-210 Westbound - Direct On-Ramp at Irwindale Avenue Highway (Merge)

TABLE ES-3 FREEWAY MERGE/DIVERGE RAMP JUNCTION ANALYSIS LOCATIONS (Continued)

ID	Freeway Merge/Diverge Ramp Junctions
9	I-210 Eastbound - Off-Ramp at Irwindale Avenue (Diverge)
10	I-210 Eastbound - On-Ramp at Irwindale Avenue (Merge)

In addition, Table ES-4 summarizes queuing analysis locations at the following on / off ramp intersections:

TABLE ES-4 QUEUING ANALYSIS LOCATIONS

ID	Intersection Location	Traffic Control	Jurisdiction
3	I-605 SB Off-Ramp (NS) / Arrow Hwy. (EW)	Signalized	Caltrans
7	I-605 SB On-Ramp (NS) / Live Oak Av. (EW)	Signalized	Caltrans
8	I-605 NB Off-Ramp (NS) / Live Oak Av. (EW)	Unsignalized	Caltrans

The following summarizes the principal findings in the traffic analysis portions of this report:

For Existing (2016) and Existing Plus Project, Interim Year (2016) Without and With Project, and Long Range (2035) Without Project conditions, the following intersection is projected to operate at unacceptable level of service (LOS "E" or worse) during the peak hours, with existing geometry:

ID	Intersection Location	Jurisdiction
8	I-605 NB Off-Ramp (NS) / Live Oak Av. (EW)	Caltrans

For Long Range (2035) With Project conditions, the following study area intersections are projected to operate at unacceptable level of service (LOS "E" or worse) during the peak hours, with existing geometry, in addition to the intersection previously identified under Existing conditions:

ID	Intersection Location	Jurisdiction
3	I-605 SB Off-Ramp (NS) / Arrow Hwy. (EW)	Caltrans

Freeway Mainline Segment Analysis results indicate that the following study area mainline segment locations operate at an unacceptable level of service (LOS "E" or worse) during the peak hours under Existing, Existing plus Project, Interim Year (2017) Without and With Project conditions, with existing geometry:

ID	Freeway Mainline Segments
8	I-210 Westbound, Immediately East of Irwindale Avenue Westbound Off-Ramp
10	I-210 Westbound, Immediately West of Irwindale Avenue Westbound On-Ramp
11	I-210 Eastbound, Immediately West of Irwindale Avenue Eastbound Off-Ramp

For Long Range (2035) Without and With Project conditions, the following freeway mainline segment locations are projected to operate at unacceptable level of service (LOS "E" or worse) during the peak

hours, with existing geometry, in addition to the previously identified locations under Existing conditions:

ID	Freeway Mainline Segments
9	I-210 Westbound, Between Irwindale Avenue Westbound Loop On-Ramp and Irwindale Avenue Westbound Off-Ramp
13	I-210 Eastbound, Immediately East of Irwindale Avenue Eastbound Off-Ramp

Merge/Diverge Ramp Junction Analysis results indicate that the following study area ramp location appear to operate at an unacceptable level of service (LOS "E" or worse) during the peak hours under Existing, Existing plus Project, Interim Year (2017) Without and With Project conditions, with existing geometry:

ID	Freeway Merge/Diverge Ramp Junctions
6	I-210 Westbound - Off-Ramp at Irwindale Avenue (Diverge)

For Long Range (2035) Without and With Project conditions, the following study area ramp location is anticipated to operate at unacceptable level of service (LOS "E" or worse) during the peak hours, with existing geometry, in addition to the previously identified location under Existing Conditions:

ID	Freeway Merge/Diverge Ramp Junctions
8	I-210 Westbound - Direct On-Ramp at Irwindale Avenue Highway (Merge)

As the proposed project would contribute to the existing and forecasted deficient freeway segments, the project's contribution to these cumulative traffic impacts are considered cumulatively considerable.

Neither Caltrans nor the State has adopted a fee program that can ensure that locally-contributed impact fees will be tied to improvements to freeway mainlines, and only Caltrans has the jurisdiction over mainline improvements. Because Caltrans has exclusive control over state highway improvements, ensuring that fair share contributions to mainline improvements are actually part of a program tied to implementation of mitigation is within the jurisdiction of Caltrans. As such, the City of Irwindale may decide whether specific overriding economic, legal, social, technological, or other benefits of the project outweigh the unavoidable adverse cumulative traffic impacts associated with the project. Based on the Synchro plus SimTraffic 8 simulation results, the vehicular queues appear to clear in a reasonable and timely fashion throughout the network under all traffic conditions.

The following improvements are recommended to mitigate cumulative impacts at the deficient study area locations:

1. 2017 Without and With Project Conditions:

I-605 NB Off-Ramp (NS) / Live Oak Avenue (EW) (#8)

- Install a traffic signal
- Construct a 2nd northbound right turn lane.
- Provide a 3rd westbound through lane by modifying the existing raised median. This will also provide additional queuing storage for the westbound left turn lane at the intersection of I-605 SB On-Ramp (NS) / Live Oak Avenue (EW).

2. 2035 with Project Conditions:

I-605 SB Off-Ramp (NS) / Arrow Highway (EW) (#3)

- Construct a 2nd southbound left turn lane.

It should be noted that the abovementioned improvements are generally consistent with the Traffic Study Report for I-605/Live Oak Avenue/Arrow Highway Interchanges December 14, 2012), prepared by Advantec Consulting Engineers.

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1.0 INTRODUCTION

1.1 PURPOSE OF REPORT AND STUDY OBJECTIVES

The purpose of this updated traffic impact analysis is to evaluate the proposed materials recovery and transfer station from a traffic circulation standpoint and verify the findings of the February 27, 2014 traffic analysis for this site. The proposed project is located east of the I-605 Freeway, on the northwesterly quadrant of Arrow Highway and Live Oak Avenue in the City of Irwindale.

To satisfy the environmental analysis requirements per the City of Irwindale Policy Guidelines for Traffic Impact Reports, the California Department of Transportation (Caltrans) requirements/ comments on the Notice of Project (NOP), the California Environmental Quality Act (CEQA) and the Los Angeles County Congestion Management Program (CMP), the following time frames / scenarios will be evaluated in the traffic analysis:

- Existing (2016) Conditions
- Existing Plus Project Conditions
- Interim Year (2017) Conditions Without and With the Project
- Long Range (2035) Conditions Without and With the Project

1.2 PROJECT DESCRIPTION

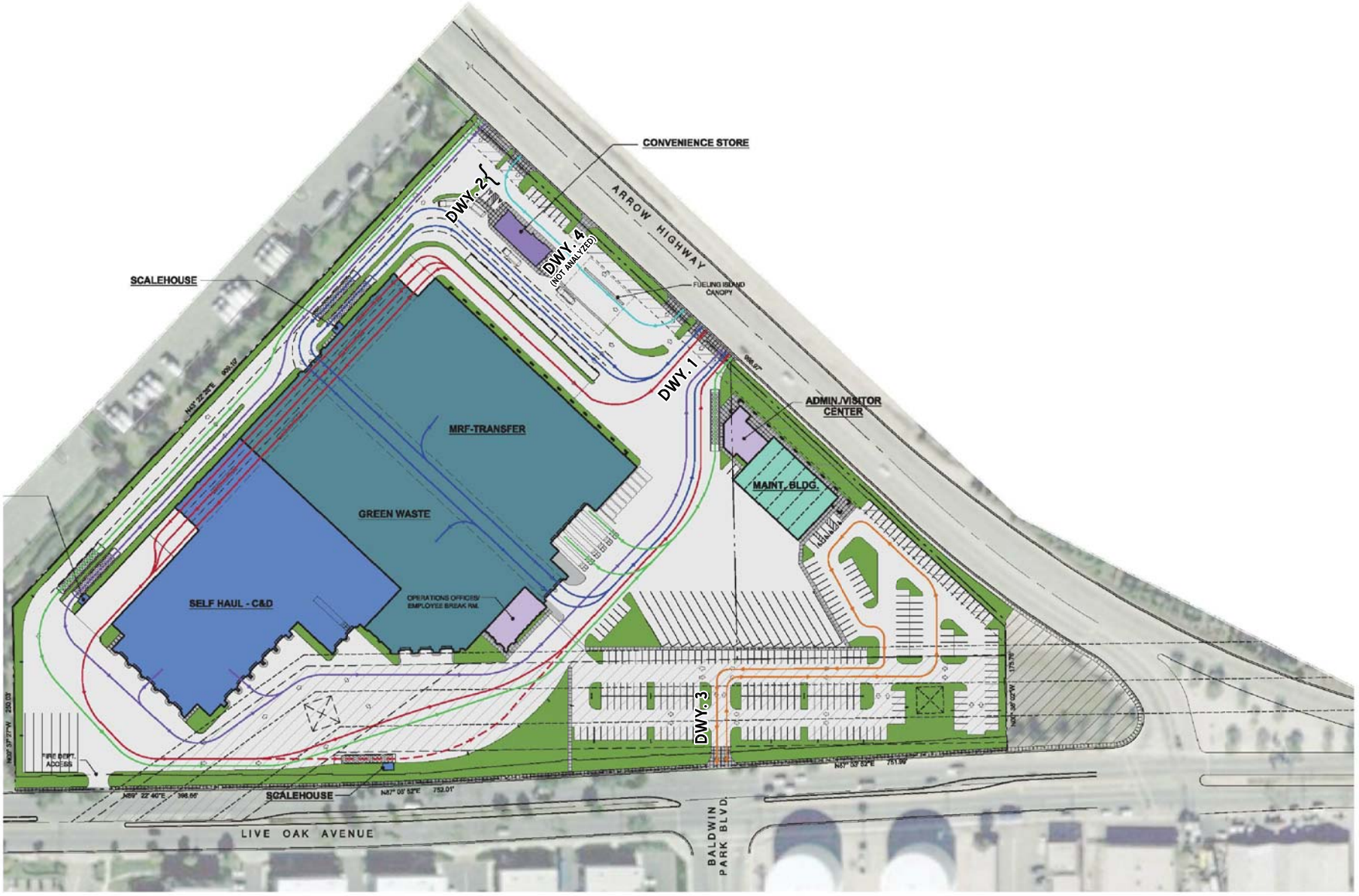
Exhibit 1-A shows the site plan of the proposed project. As indicated on Exhibit 1-A, the proposed project site would be grouped into three (3) primary areas: 1.) Materials Recovery Facility and Transfer Station, 2.) Convenience Store / Fueling Facility and 3.) Administrative/Visitor Center and Maintenance Building. The Materials and Recovery Facility and Transfer Station would include the majority of the building development totaling approximately 228,432 square feet. The Convenience Store / Fueling Facility would be a separate structure located on the north-east portion of the project site totaling approximately 2,390 square feet. The Administrative/Visitor Center and Maintenance Building is approximately 15,200 square feet. In addition, a traffic signal will be installed at Driveway 1 along Arrow Highway as a Project design feature.

The Proposed Project proposes a maximum throughput of up to 6,000 tons per day. The maximum daily number of truck trips would be 2,456 truck round trips (including collection trucks, transfer trucks and self-haul trucks). The daily trips include 249 self-haul trips, 1,137 packer truck trip, 66 end dump truck trips, 445 roll-off truck trips, and 559 transfer truck trips. The Proposed Project also includes 345 employee trips. An additional 751 daily trips would be associated with the convenience store/service station. The convenience store/service station would occur with the Proposed Project but is not included in the Baseline Condition.

For the purpose of this TIA report, the truck trips have been converted to passenger car equivalents (PCE). The project is anticipated to generate a net total of approximately 8,333 (PCE) trip-ends per day, with 664 AM peak hour (PCE) trips and 664 PM peak hour (PCE) trips.

EXHIBIT 1-A

SITE PLAN



1.3 TRAFFIC OPERATIONS ANALYSIS

1.3.1 INTERSECTION DELAY ANALYSIS METHODOLOGY

For this study, the technical guide used in the evaluation of traffic operations is the 2010 Highway Capacity Manual (HCM) (Transportation Research Board Special Report 209). The HCM defines level of service as a qualitative measure which describes operational conditions within a traffic stream, generally in terms of such factors as speed and travel time, freedom to maneuver, traffic interruptions, comfort and convenience, and safety. The criteria used to evaluate Level of Service (LOS) conditions vary based on the type of roadway and whether the traffic flow is considered interrupted or uninterrupted.

The definitions of level of service for uninterrupted flow (flow unrestrained by the existence of traffic control devices) are:

- LOS "A" represents free flow. Individual users are virtually unaffected by the presence of others in the traffic stream.

- LOS "B" is in the range of stable flow, but the presence of other users in the traffic stream begins to be noticeable. Freedom to select desired speeds is relatively unaffected, but there is a slight decline in the freedom to maneuver.

- LOS "C" is in the range of stable flow, but marks the beginning of the range of flow in which the operation of individual users becomes significantly affected by interactions with others in the traffic stream.

- LOS "D" represents high-density but stable flow. Speed and freedom to maneuver are severely restricted, and the driver experiences a generally poor level of comfort and convenience.

- LOS "E" represents operating conditions at or near the capacity level. All speeds are reduced to a low, but relatively uniform value. Small increases in flow will cause breakdowns in traffic movement.

- LOS "F" is used to define forced or breakdown flow. This condition exists wherever the amount of traffic approaching a point exceeds the amount which can traverse the point. Queues form behind such locations.

Uninterrupted flow is generally found only on limited access (freeway) facilities in urban areas.

The definitions of level of service for interrupted traffic flow (flow restrained by the existence of traffic signals and other traffic control devices) differ slightly depending on the type of traffic control.

The level of service is typically dependent on the quality of traffic flow at the intersections along a roadway. The HCM methodology expresses the level of service at an intersection in terms of delay time for the various intersection approaches. The HCM uses different procedures depending on the type of intersection control. The levels of service determined in this study are calculated using the HCM methodology.

For signalized intersections, average total delay per vehicle for the overall intersection is used to determine level of service. Levels of service at the study intersections have been evaluated using an HCM intersection analysis program (Synchro Version 8). The level of service has been determined at signalized intersections using data collected describing the intersection configuration, traffic signal timing, and traffic volumes to calculate average intersection delay.

The study area intersections which are stop sign controlled with stop-control on the minor street only have been analyzed using the two-way stop-controlled unsignalized intersection analysis methodology of the HCM. For these intersections, the calculation of level of service is dependent on the occurrence of gaps occurring in the traffic flow of the major street. The level of service criteria for this type of intersection analysis is based on total delay per vehicle for the worst minor street movement(s).

The levels of service are defined in terms of average delay for the HCM intersection analysis methodology is as follows:

SIGNALIZED INTERSECTION DESCRIPTION OF LOS

Description	Average Control Delay (Seconds), V/C ≤ 1.0	Level of Service, V/C ≤ 1.0	Level of Service, V/C > 1.0
Operations with very low delay occurring with favorable progression and/or short cycle length.	0 to 10.00	A	F
Operations with low delay occurring with good progression and/or short cycle lengths.	10.01 to 20.00	B	F
Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.	20.01 to 35.00	C	F
Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, or high V/C ratios. Many vehicles stop and individual cycle failures are noticeable.	35.01 to 55.00	D	F
Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences. This is considered to be the limit of acceptable delay.	55.01 to 80.00	E	F
Operation with delays unacceptable to most drivers occurring due to over saturation, poor progression, or very long cycle lengths	80.01 and up	F	F

Source: HCM 2010, Chapter 18

Urban segments (i.e., segments on roadways that are generally signalized) do not typically require segment analysis. Segment requirements can normally be determined by the analysis of lane requirements at intersections.

For Existing and Future 'Without Project' conditions LOS analysis, the existing signal timing plans (provided by City of Irwindale staff and Caltrans staff) have been utilized for the study area intersections. For 'With Project' conditions, the existing signal timing plans in conjunction with potential signal optimization timing opportunities (e.g. – lengthier green times and separate / protected left turn phases, where necessary) were used to calculate 'With Project' LOS.

A saturation flow rate of 1,900 vehicles per hour of green (vphg) per lane is utilized in each scenario for HCM calculation purposes. The signalized study area intersections have also been analyzed using the

Intersection Capacity Utilization (ICU) technique. To calculate an ICU, the volume of traffic using the intersection is compared with the capacity of the intersection. ICU is usually expressed as a volume to capacity (V/C) ratio. The V/C represents that portion of the hour required to provide sufficient capacity to accommodate all intersection traffic if all approaches operate at capacity.

For unsignalized study area intersections, explicit ICU volume to capacity ratios cannot be calculated.

For all study area signalized intersections, ICU analysis has also been performed using the Synchro 8 software. It should be noted that the Synchro v/c output results are discussed in the City of Irwindale Policy Guidelines for Traffic Impact Reports under Section B (page insert) and indicated that the v/c ratio results in the Synchro are based on ICU and should be presented in addition to delay information. Therefore, consistent with the City's guidelines, both the Synchro v/c ratio (ICU) and delay results are presented in this report. The V/C ratio and corresponding Level of Service (LOS) are as follows:

Level of Service	Critical Volume To Capacity Ratio
A	0.00 - 0.60
B	0.61 - 0.70
C	0.71 - 0.80
D	0.81 - 0.90
E	0.91 - 1.00
F	>1.00

1.3.2 FREEWAY MAINLINE ANALYSIS METHODOLOGY

The freeway segments have been evaluated in this report based upon peak hour directional volumes. The freeway segment analysis is based on the methodology described in Chapter 23 of the HCM and performed using HCS2010 software. The performance measure preferred by Caltrans to calculate LOS is density. Density is expressed in terms of passenger cars per mile per lane. The three measures of speed, density, and flow or volume are interrelated. Table below illustrates the freeway segment LOS thresholds for each density range utilized for this analysis.

The freeway system in the study area has been subdivided into segments defined by the freeway-to-arterial interchange locations. The freeway segments have been evaluated in this TIA based upon peak hour directional volumes. The freeway segment analysis is based on the methodology described in Chapter 11 of the HCM 2010 and performed using HCS 2010 software. The performance measure preferred by Caltrans to calculate LOS is density. Density is expressed in terms of passenger cars per mile per lane. The three measures of speed, density, and flow or volume are interrelated. Table below illustrates the freeway segment LOS thresholds for each density range utilized for this analysis.

FREEWAY MAINLINE LOS THRESHOLDS

Level of Service	Description	Density Range (pc/mi/ln)[1]
A	Free-flow operations in which vehicles are relatively unimpeded in their ability to maneuver within the traffic stream. Effects of incidents are easily absorbed.	0.0 – 11.0
B	Relative free-flow operations in which vehicle maneuvers within the traffic stream are slightly restricted. Effects of minor incidents are easily absorbed.	11.1 – 18.0
C	Travel is still at relative free-flow speeds, but freedom to maneuver within the traffic stream is noticeably restricted. Minor incidents may be absorbed, but local deterioration in service will be substantial. Queues begin to form behind significant blockages.	18.1 – 26.0
D	Speeds begin to decline slightly and flows and densities begin to increase more quickly. Freedom to maneuver is noticeably limited. Minor incidents can be expected to create queuing as the traffic stream has little space to absorb disruptions.	26.1 – 35.0
E	Operation at capacity. Vehicles are closely spaced with little room to maneuver. Any disruption in the traffic stream can establish a disruption wave that propagates throughout the upstream traffic flow. Any incident can be expected to produce a serious disruption in traffic flow and extensive queuing.	35.1 – 45.0
F	Breakdown in vehicle flow. Demand exceeds capacity.	>45.0

[1] pc/mi/ln = passenger cars per mile per lane. Source: HCM 2010, Chapter 11

The specification of maximum densities for LOS "A" through "D" is based on the collective professional judgment of the members of the Committee on Highway Capacity and Quality of Service for the Transportation Research Board. The upper value shown for LOS "E" (45 pm/mi/ln) is the maximum density at which sustained flows at capacity are expected to occur.

1.3.3 FREEWAY RAMP ANALYSIS METHODOLOGY

The ramp operation analyses have been based on the following HCM methodologies: Merge, Diverge and/or Weave analysis methods. The Weave analysis method is performed between an on-ramp and an off-ramp of adjacent interchanges spaced less than 2,500 feet apart. For ramps of adjacent interchanges spaced more than 2,500 feet apart, Merge and Diverge analysis methods are used for on-ramps and off-ramps, respectively. For this assessment, Merge and Diverge analyses have been used to be consistent with the Traffic Study Report for I-605/Live Oak Avenue/Arrow Highway Interchanges (2012), prepared by Advantec Consulting Engineers.

The merge/diverge analysis is based on the HCM 2010 Freeway Merge and Diverge Segments analysis method and performed using HCS 2010 software. The measure of effectiveness (reported in passenger car/mile/lane) are calculated based on the existing number of travel lanes, number of lanes at the on and off ramps both at the analysis junction and at upstream and downstream locations (if applicable) and acceleration/deceleration lengths at each merge/diverge point. Table below presents the merge/diverge area LOS thresholds for each density range utilized for this analysis.

DESCRIPTION OF FREEWAY MERGE AND DIVERGE LOS

Level of Service	Density Range (pc/mi/ln)[1]
A	≤10.0
B	10.0 – 20.0
C	20.0 – 28.0
D	28.0 – 35.0
E	>35.0
F	Demand Exceeds Capacity

[1] pc/mi/ln = passenger cars per mile per lane. Source: HCM 2010, Chapter 13

1.3.4 INTERSECTION QUEUING ANALYSIS METHODOLOGY

A traffic signal progression analysis has been conducted at the I-605 freeway on/off ramp intersections to evaluate vehicular queuing and stacking length requirements by considering the signal timing and physical spacing of intersections. The progression results have been based on the output from the Synchro plus SimTraffic 8 software program.

1.4 DEFINITION OF DEFICIENCY AND SIGNIFICANT IMPACT

The following definitions of deficiencies and significant impacts have been developed in accordance with City of Irwindale requirements.

1.4.1 DEFINITION OF DEFICIENCY

The City of Irwindale requires the following LOS criteria be implemented:

- LOS will not exceed LOS "D" at all intersections (excluding State Highway facilities) on arterial and collector streets.

In addition, the study intersections along Live Oak Avenue, east of Rivergrade Road, are located on the City boundary of Irwindale and Baldwin Park. The City of Baldwin Park General Plan (November 2002) states that the City will maintain level of service "D" at all City intersections. As such, LOS "D" has also been considered acceptable at any intersections and roadways within the City of Baldwin Park.

For State Highway facilities, the Caltrans Guide for the Preparation of Traffic Impact Studies (December 2002) states that Caltrans endeavors to maintain a target LOS at the transition between LOS "C" and LOS "D", however, Caltrans acknowledges that this may not always be feasible and recommends that the lead agency consult with Caltrans to determine the appropriate target LOS. If an existing State highway facility is operating at less than the appropriate target LOS, the existing MOE should be maintained. Therefore, for the purpose of this report, LOS "D" is used as the maximum acceptable threshold for study area ramp intersections and freeway mainline and ramp segments.

1.4.2 DEFINITION OF SIGNIFICANT IMPACT

- When a signalized intersection operates at mid-range LOS "D" (45.0 seconds) or better under existing or future baseline conditions, and the addition of project trips degrades the intersection operations to LOS "E" or "F". The project mitigation should bring the facility to operate at mid-range LOS "D" at minimum.

- When a signalized intersection operates at mid-range LOS "E" (67.5 seconds) for State Highways or better under existing or future baseline conditions, and the addition of project trips degrades the intersection operations to 67.6 seconds (LOS "E") or worse (LOS "F"). The project mitigation should bring the facility to operate at mid-range LOS "E" at minimum.
- When a signalized intersection operates at LOS "E" for non-state or LOS "F" (for State) under existing or future baseline conditions, and the addition of more than 50 peak hour project trips contributes to the continuing operational failure at the intersection. The project mitigation should bring the facility to pre-project conditions.
- At an unsignalized intersection, when the minor stop-controlled approach operates at LOS **"F"** and does not have acceptable operation in terms of total control delay, and the addition of project trips increases the total control delay to more than 4.0 vehicle hours for a single lane approach or 5.0 vehicle hours for a multi-lane approach. The project mitigation should bring the facility to operate at LOS "E" (at a minimum) or bring the total control delay to less than 4.0 vehicle-hours for a single lane approach or 5.0 vehicle-hours for a multi-lane approach (at a minimum).
- At an unsignalized intersection, when the minor stop controlled approach operates at LOS **"F"** and does not have an acceptable operation in terms of total control delay, and the addition of more than 50 peak hour project trips contributes to the continuing operational failure at the minor approach. The project mitigation should bring the facility to pre-project conditions.

1.5 LOS ANGELES COUNTY CONGESTION MANAGEMENT PROGRAM (CMP) CONSISTENCY REQUIREMENTS

The proposed project is located within the jurisdiction of the City of Irwindale in Los Angeles County. Therefore, this traffic study is required to address all CMP requirements of the Los Angeles County Congestion Management Program. The purpose of the Los Angeles County Congestion Management Program (CMP) is to address the impact of local growth on the regional transportation system. The goals of the CMP are summarized below:

- To link local land use decisions with their impacts on regional transportation, and air quality;
- To develop a partnership among transportation decision makers on devising appropriate transportation solutions that include all modes of travel; and
- To provide transportation projects which are eligible to compete for state gas tax funds.

The CMP offers the following mechanisms to meet these goals:

- Tracking and analysis to determine how the regional highway and transit systems are performing;
- Analysis of the impacts of local land use decisions on regional transportation;
- Local implementation of Transportation Demand Management design guidelines that ensure new development includes improvements supportive of transit and TDM;
- Tracking new building activity throughout Los Angeles County; and Implementation of local strategies which benefit the regional transportation system and offset the impact of new development.

1.6 PRINCIPAL FINDINGS

For Existing (2016) and Existing Plus Project, Interim Year (2016) Without and With Project, and Long Range (2035) Without Project conditions, the following intersection is projected to operate at unacceptable level of service (LOS "E" or worse) during the peak hours, with existing geometry:

ID	Intersection Location	Jurisdiction
8	I-605 NB Off-Ramp (NS) / Live Oak Av. (EW)	Caltrans

For Long Range (2035) With Project conditions, the following study area intersections are projected to operate at unacceptable level of service (LOS "E" or worse) during the peak hours, with existing geometry, in addition to the intersection previously identified under Existing conditions:

ID	Intersection Location	Jurisdiction
3	I-605 SB Off-Ramp (NS) / Arrow Hwy. (EW)	Caltrans

Freeway Mainline Segment Analysis results indicate that the following study area mainline segment locations operate at an unacceptable level of service (LOS "E" or worse) during the peak hours under Existing, Existing plus Project, Interim Year (2017) Without and With Project conditions, with existing geometry:

ID	Freeway Mainline Segments
8	I-210 Westbound, Immediately East of Irwindale Avenue Westbound Off-Ramp
10	I-210 Westbound, Immediately West of Irwindale Avenue Westbound On-Ramp
11	I-210 Eastbound, Immediately West of Irwindale Avenue Eastbound Off-Ramp

For Long Range (2035) Without and With Project conditions, the following freeway mainline segment locations are projected to operate at unacceptable level of service (LOS "E" or worse) during the peak hours, with existing geometry, in addition to the previously identified locations under Existing conditions:

ID	Freeway Mainline Segments
9	I-210 Westbound, Between Irwindale Avenue Westbound Loop On-Ramp and Irwindale Avenue Westbound Off-Ramp
13	I-210 Eastbound, Immediately East of Irwindale Avenue Eastbound Off-Ramp

Merge/Diverge Ramp Junction Analysis results indicate that the following study area ramp location appears to operate at an unacceptable level of service (LOS "E" or worse) during the peak hours under Existing, Existing plus Project, Interim Year (2017) Without and With Project conditions, with existing geometry:

ID	Freeway Merge/Diverge Ramp Junctions
6	I-210 Westbound - Off-Ramp at Irwindale Avenue (Diverge)

For Long Range (2035) Without and With Project conditions, the following study area ramp location is anticipated to operate at unacceptable level of service (LOS "E" or worse) during the peak hours, with existing geometry, in addition to the previously identified location under Existing Conditions:

ID	Freeway Merge/Diverge Ramp Junctions
8	I-210 Westbound - Direct On-Ramp at Irwindale Avenue Highway (Merge)

Queuing analysis results for the I-605 indicate that vehicular queues appear to clear in a reasonable and timely fashion throughout the network under all traffic conditions. It should be noted that the 3rd westbound through lane improvement recommended to mitigate the deficient intersection of I-605 NB Off-Ramp / Live Oak Avenue (#8) will provide additional queuing storage for the westbound left turn lane at the intersection of I-605 SB On-Ramp (NS) / Live Oak Avenue (EW).

As the proposed project would contribute to the existing and forecasted deficient freeway segments, the project's contribution to these cumulative traffic impacts are considered cumulatively considerable.

Neither Caltrans nor the State has adopted a fee program that can ensure that locally-contributed impact fees will be tied to improvements to freeway mainlines, and only Caltrans has the jurisdiction over mainline improvements. Because Caltrans has exclusive control over state highway improvements, ensuring that fair share contributions to mainline improvements are actually part of a program tied to implementation of mitigation is within the jurisdiction of Caltrans. As such, the City of Irwindale may decide whether specific overriding economic, legal, social, technological, or other benefits of the project outweigh the unavoidable adverse cumulative traffic impacts associated with the project.

1.7 PROJECT FAIR SHARE CALCULATIONS

The project fair share percentages (%) towards the required improvements have also been calculated. Table 7-1 summarizes the 2035 With Project fair share percentages for the proposed project. As shown on Table 7-1, the project contributes approximately 20% of the new traffic at the intersection of I-605 SB Off-Ramp / Arrow Highway and approximately 33% of the new traffic at the intersection of I-605 NB Off-Ramp / Live Oak Avenue.

1.8 RECOMMENDATIONS

1.8.1 OFF-SITE IMPROVEMENTS

Existing plus Project, Interim Year (2017) Without and With Project, and Long Range (2035) conditions, the following improvements are recommended:

I-605 NB Off-Ramp (NS) / Live Oak Avenue (EW) (#8)

- Install a traffic signal
- Construct a 2nd northbound right turn lane.
- Provide a 3rd westbound through lane by modifying the existing raised median. This will also provide additional queuing storage for the westbound left turn lane at the intersection of I-605 SB On-Ramp (NS) / Live Oak Avenue (EW).

In addition, the following improvements are recommended for 2035 with Project Conditions:

I-605 SB Off-Ramp (NS) / Arrow Highway (EW) (#3)

- Construct a 2nd southbound left turn lane.

It should be noted that the above mentioned improvements are generally consistent with the *Traffic Study Report for I-605/Live Oak Avenue/Arrow Highway Interchanges (December 14, 2012)*, prepared by Advantec Consulting Engineers.

1.8.2 ON-SITE CIRCULATION RECOMMENDATIONS

The recommended site access driveway improvements for the Project are described below. Exhibit 8-D illustrates the on-site and site adjacent recommended roadway lane improvements. Construction of on-site and site adjacent improvements shall occur in conjunction with adjacent Project development activity or as needed for Project access purposes.

Arrow Highway (NS) / Driveway 1 (EW) (#16) – Install a traffic signal and construct the intersection with the following geometrics:

Northbound Approach: One left turn lane (two way turn lane) and two through lanes.

Southbound Approach: Two through lanes and one right turn lane.

Eastbound Approach: One left turn lane and one right turn lane

Westbound Approach: N/A

Arrow Highway (NS) / Driveway 2 (EW) (#17) – Install a stop control on the eastbound approach and construct the intersection with the following geometrics:

Northbound Approach: One left turn lane (two way turn lane) and two through lanes.

Southbound Approach: Two through lanes and one right turn lane.

Eastbound Approach: One shared left turn and right turn lane.

Westbound Approach: N/A

Driveway 3 - Baldwin Park Boulevard (NS) / Live Oak Av. (EW) (#13) – Modify traffic signal to include Project Driveway 3 (north leg) and construct the intersection with the following geometrics:

Northbound Approach: Two left turn lanes and one shared through-right turn lane.

Southbound Approach: One left turn lane and one shared through-right turn lane.

Eastbound Approach: One left turn lane (100-foot pocket length), two through lanes, and one defacto right turn lane.

Westbound Approach: One left turn lane, two through lanes, and one right turn lane.

Vehicle queuing on-site at the Arrow Highway / Driveway 1 intersection is estimated to require approximately 240 feet of back-up / storage length during peak hours. The Project site plan accommodates this on-site peak hour queuing activity. Inbound Project traffic does not cross the paths of outbound vehicles in the vicinity of Driveway 1. However, the site access recommendation shown on Exhibit 8-D include changes to the convenience store/gas pump access configuration in order to reduce conflicting auto turning movements in the vicinity of Driveway 1. Those recommendations include the following:

- Provide a right-in/right-out access for the convenience store located between Driveway 1 and Driveway 2 along Arrow Highway.

- Eliminate convenience store Driveway located immediately to the north of Driveway 1 along Arrow Highway.
- Move Convenience Store/Gas pump access further into the site (away from signalized intersection, increasing the throat length of the driveway).
- Provide a 28-foot internal access driveway connecting MRF main driveway to convenience store with gas pumps.
- On-site traffic signing and striping should be implemented in conjunction with detailed construction plans for the project site.
- Sight distance at the project driveways should be reviewed with respect to standard Caltrans and City of Irwindale sight distance standards at the time of preparation of final grading, landscape and street improvement plans.

2.0 PROJECT DESCRIPTION

2.1 LOCATION

The proposed project is located on the northwest corner of Arrow Highway and Live Oak Avenue in the City of Irwindale, as previously shown on Exhibit 1-A.

2.2 LAND USE AND INTENSITY

The project site is currently zoned for Heavy Manufacturing and is designated for commercial land use in the City's General Plan. The project site is located in an industrial area, with various commercial/industrial, residential, and recreational land uses in surrounding areas.

Exhibit 1-A (previously presented) shows the site plan proposed project. As indicated on Exhibit 1-A, the proposed project site would be grouped into three (3) primary areas: 1.) Materials Recovery Facility and Transfer Station, 2.) Convenience Store / Fueling Facility and 3.) Administrative/Visitor Center and Maintenance Building. The Materials and Recovery Facility and Transfer Station would include the majority of the building development totaling approximately 228,432 square feet. The Convenience Store / Fueling Facility would be a separate structure located on the north-east portion of the project site totaling approximately 2,390 square feet. The Administrative/Visitor Center and Maintenance Building is approximately 15,200 square feet.

2.3 PROJECT ACCESS

Exhibit 2-A illustrates the proposed Access and On-Site Circulation for the project. Primary access for transfer trucks to and from the project site would be from Arrow Highway, and directed towards Interstate 605 for regional transport, utilizing Irwindale roadways. Two additional access points to the south from Live Oak Avenue will serve for employees, visitors and Fire Department access only. Site access into the Fueling Facility/Convenience Store area would be located on Arrow Highway. For the purpose of this report, only the full access driveways are analyzed. As shown in Exhibit 2-A, Driveway 1 is proposed to be the only full access for trucks. Driveway 2 is proposed as an entrance only for trucks and full access for passenger cars accessing the convenience store/fueling facility. Driveway 3 is proposed to be utilized by passenger cars only (i.e. – employee and visitor traffic). Driveway 4, located south of Driveway 2, is proposed as right-in/right-out only access for the convenient store/fueling facility. The convenience store/gas station driveway immediately adjacent to Driveway 1 is recommended to be eliminated, in conjunction with improved internal connectivity with Driveway 1 (see Section 8 of this report).

2.4 PHASING AND TIMING

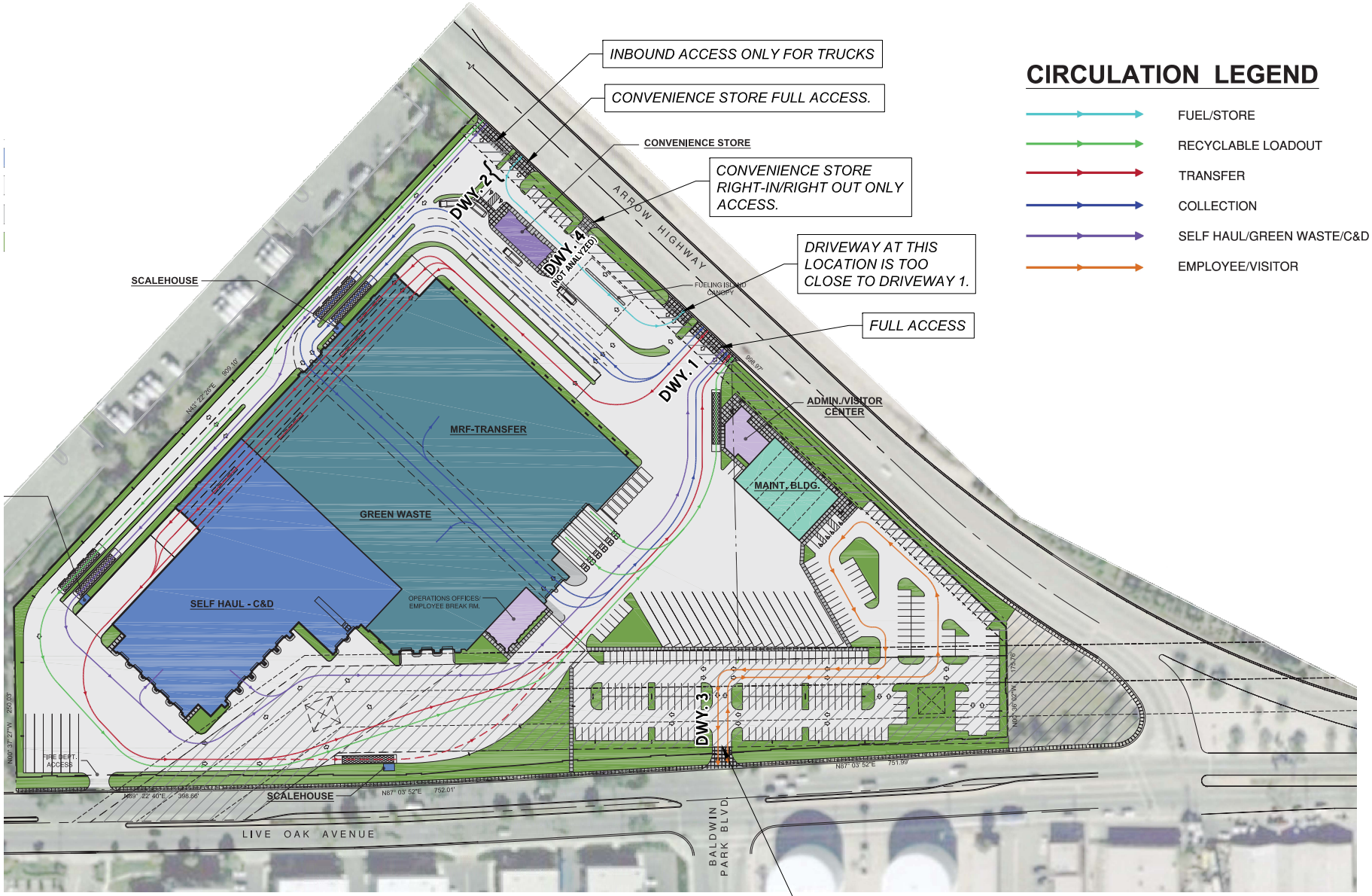
The project will be constructed in one phase and expected to become operational in 2017. The project is expected to process approximately 6,000 tons of material per day with up to 345 employees.

2.5 PROJECT TRIP DISTRIBUTION

Under the Proposed Project, the truck trips are processed at the Irwindale Facility and then transported to the Mid-Valley Landfill (85 percent of trips) and San Timoteo Landfill (15 percent of trips); with a weighted average one-way travel distance of 38 miles. The recycling materials are sent to

EXHIBIT 2-A

ACCESS AND ON-SITE CIRCULATION



URBAN CROSSROADS

the Port of Los Angeles/Long Beach, an average of 34 miles travel distance. The composting materials are sent to Victorville (American Organics), an average of 73 miles travel distance. The waste is estimated to be 46 percent landfill material, 35 percent recycling material, and 19 percent composting material for the Proposed Project.

Materials/waste headed inbound into the proposed project would be recovered from cities such as the City of Irwindale, Azusa, Covina, Monrovia, Monterey Park, Glendora, San Marino, Sierra Madre, West Covina, and additional nearby cities. Subsequent to the processing of the inbound materials/waste, recovered materials would be transferred to compost facilities in Victorville or to the ports of Los Angeles and Long Beach for overseas shipping to recycling plants. The remaining/unrecoverable waste materials would be transported to one of several landfills in Los Angeles County, Riverside County, or to other regional landfills.

Regional access to the site is provided by a number of major freeways, including Interstate Freeway 10 (I-10) to the south, I-605 Freeway to the west and I-210 Freeway to the north. However, based on discussion with the project team, project related truck traffic will be accessing the freeway system via the I-605 Freeway On and Off Ramps. Local access to the project site is anticipated to be served by the following roadways:

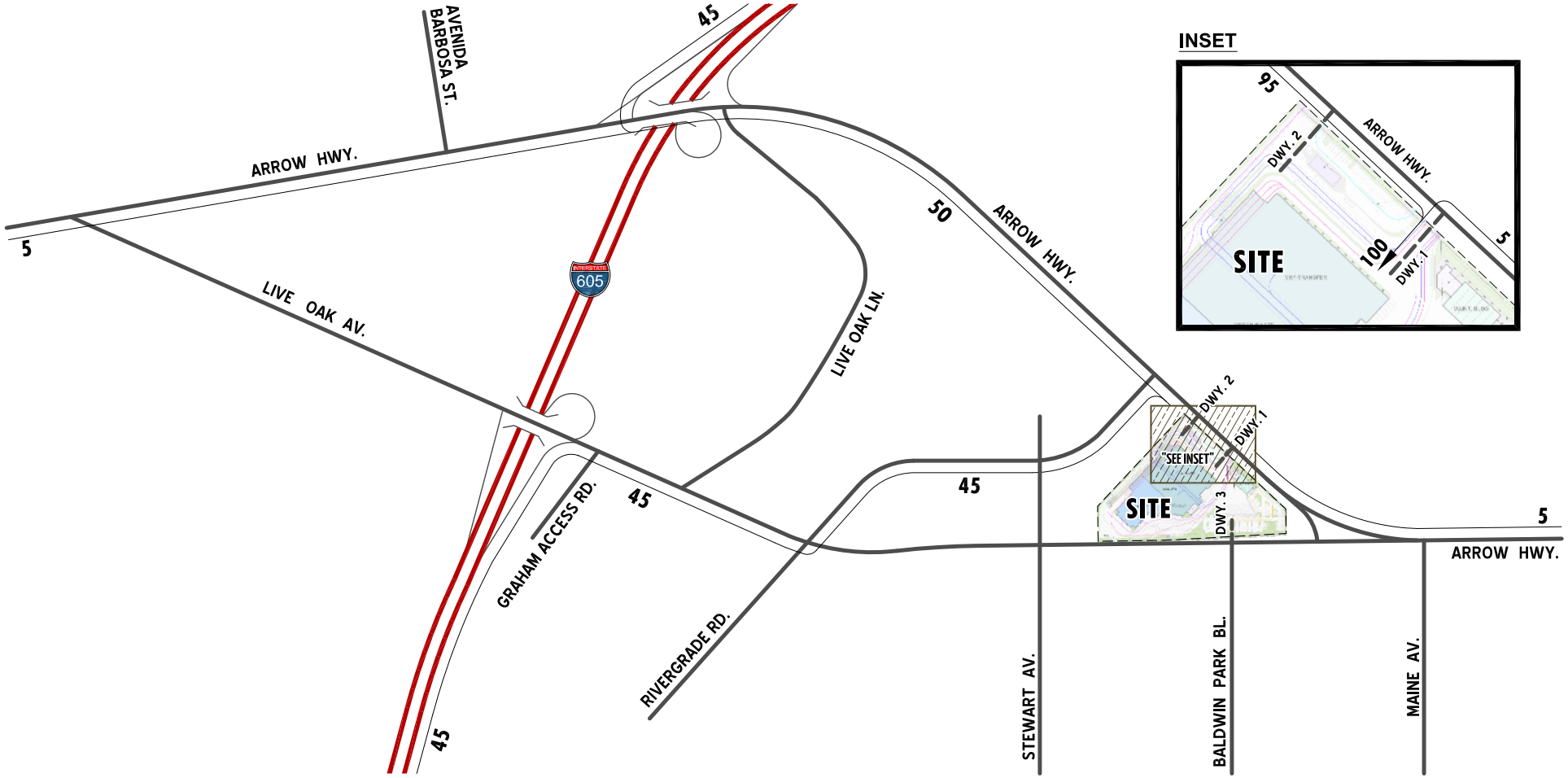
- Rivergrade Road
- Stewart Avenue
- Baldwin Park Boulevard
- Arrow Highway
- Live Oak Avenue

Exhibit 2-B presents the Collection Trucks and Roll-Off Trucks trip distribution patterns for the proposed project. The trip distribution anticipated for the Collection Trucks and Roll-Off Trucks represent the traffic pattern for trucks/vehicles bringing commodities into the site for processing. As shown on Exhibit 2-B, 45% of the "Collection Trucks and Roll-Off Trucks" are anticipated to travel to/from the north (via the I-605 Freeway) and 45% to/from the south (via I-605 Freeway). As also shown on Exhibit 2-B, 5% of the "Collection Trucks and Roll-Off Trucks" are anticipated to travel along Arrow Highway to the west.

Exhibit 2-C presents the Self-Haul/Contractor trip distribution patterns for the proposed project. As shown on Exhibit 2-C, 40% of the Self-Haul/Contractor vehicles are anticipated to travel along Arrow Highway to/from the north and 40% along Live Oak Avenue to/from the I-605 Freeway to/from the south. As also shown on Exhibit 2-C, 5% of the Self-Haul/Contractor vehicles are anticipated to travel to the west along Arrow Highway and to the east along Live Oak Avenue. The self-haul/contractor trucks are proposed to utilize Driveway 2 for entering the site and Driveway 1 for exiting the site. The trip distribution anticipated for the "Self-Haul/Contractor" vehicles represent the traffic pattern for trucks/vehicles bringing commodities into the site for processing.

Exhibit 2-D presents the Transfer Trucks trip distribution patterns for the proposed project. The trip distribution anticipated for the Transfer Trucks represents the traffic pattern for trucks bringing materials out of the site to be transferred to compost facilities in Victorville or to the ports of Los Angeles and Long Beach for overseas shipping to recycling plants. Unrecoverable materials would be

COLLECTION TRUCK (INCLUDING PACKER, END DUMP & ROLL-OFF TRUCKS) INBOUND TRIP DISTRIBUTION

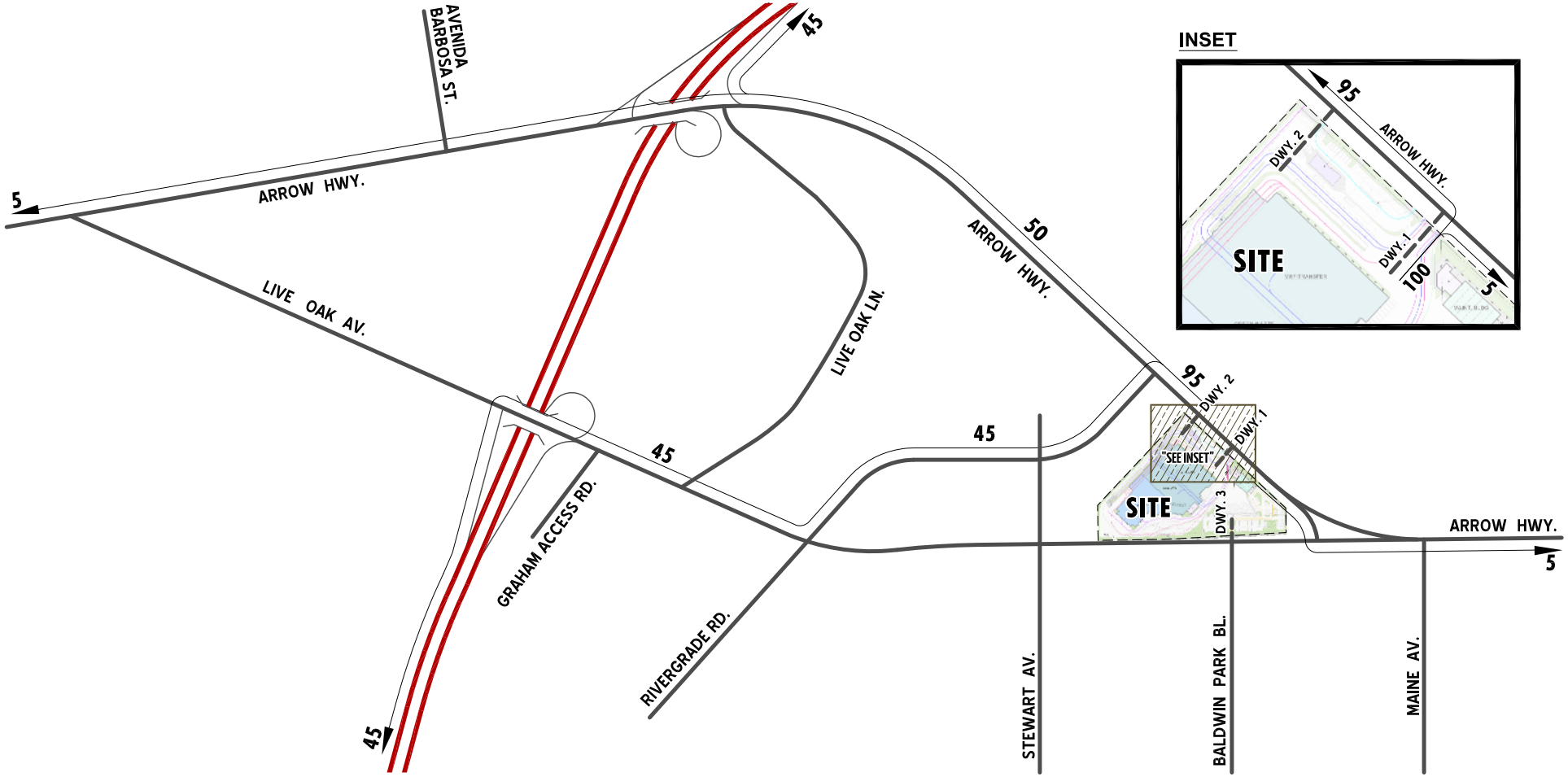


LEGEND:

10 = PERCENT TO PROJECT

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COLLECTION TRUCK (INCLUDING PACKER, END DUMP & ROLL-OFF TRUCKS) OUTBOUND TRIP DISTRIBUTION



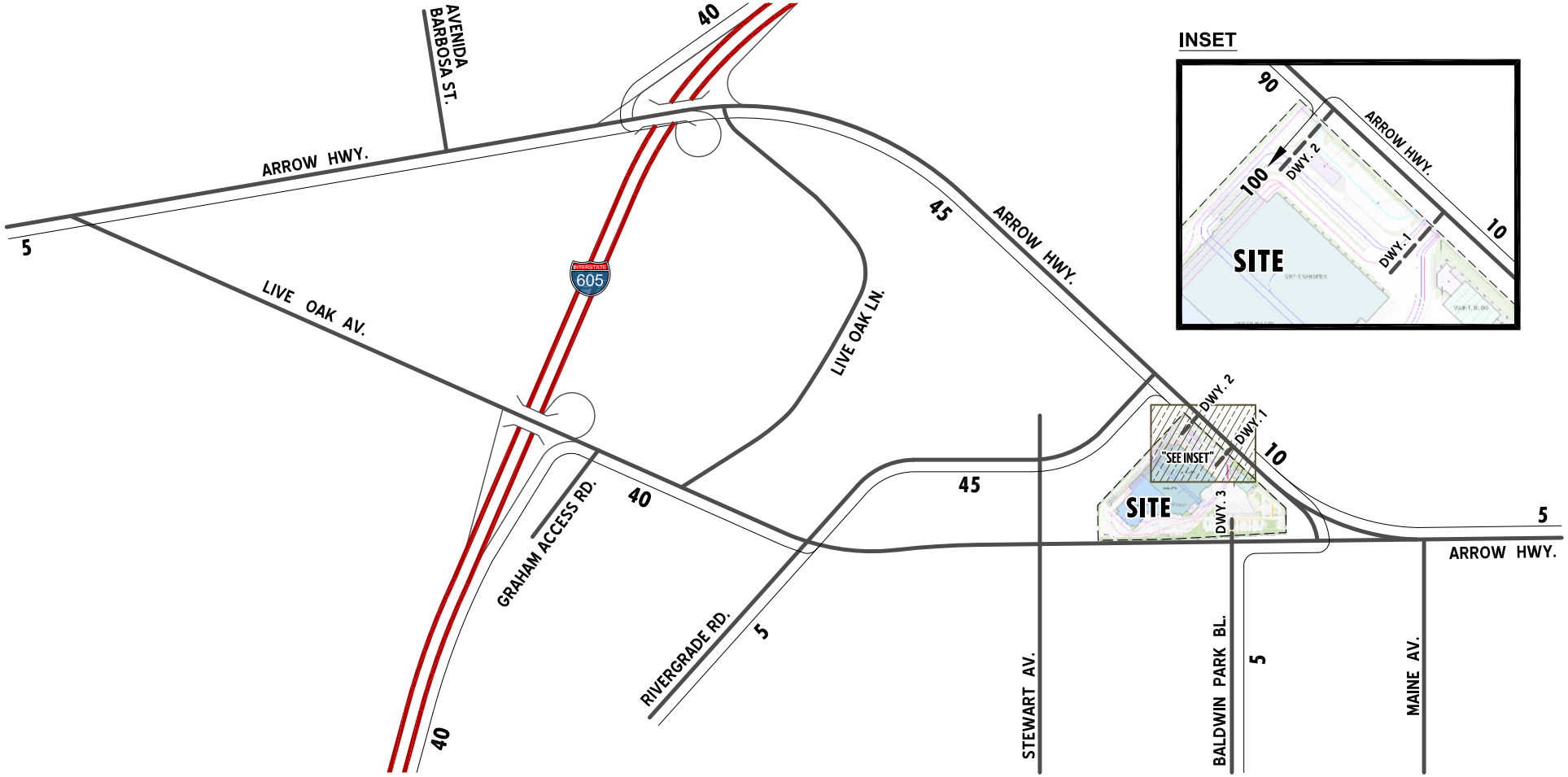
LEGEND:

10 = PERCENT FROM PROJECT

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EXHIBIT 2-C (Page 1 of 2)

SELF HAUL/CONTRACTOR TRUCK INBOUND TRIP DISTRIBUTION



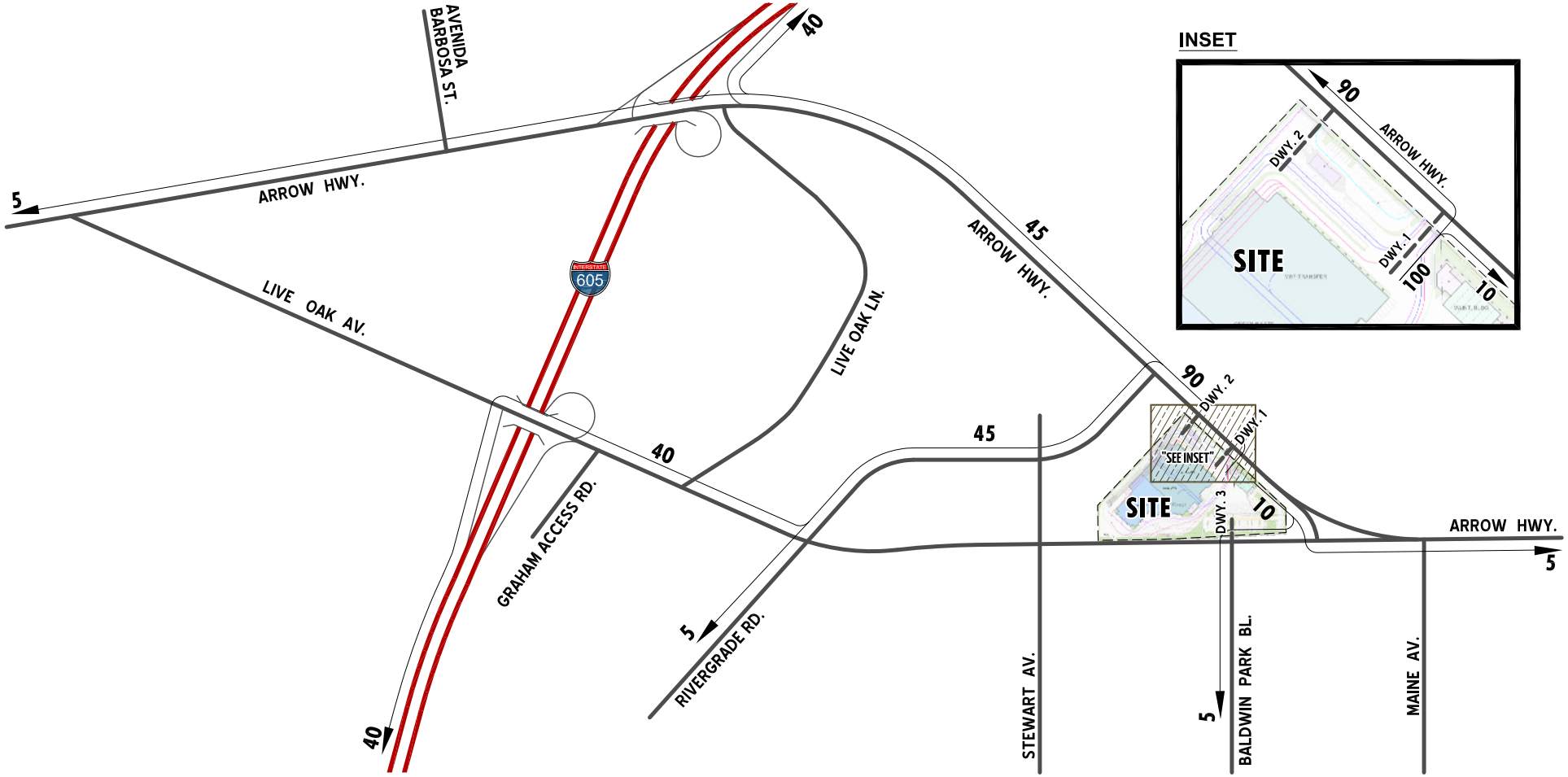
LEGEND:

10 = PERCENT TO PROJECT

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EXHIBIT 2-C (Page 2 of 2)

SELF HAUL/CONTRACTOR TRUCK OUTBOUND TRIP DISTRIBUTION

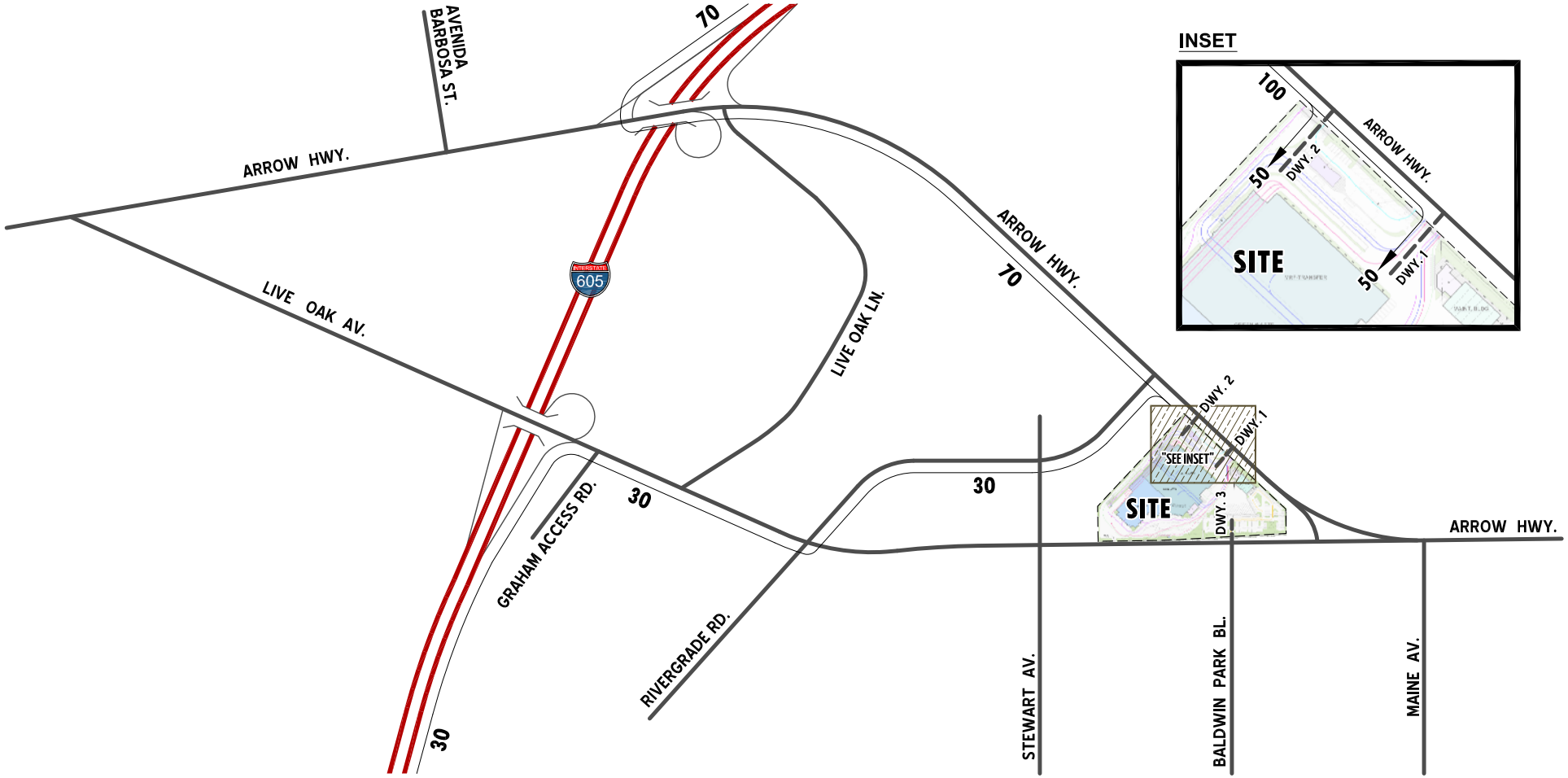


LEGEND:

10 = PERCENT FROM PROJECT

N

TRANSFER & RECYCLABLE LOADOUT TRUCKS INBOUND TRIP DISTRIBUTION



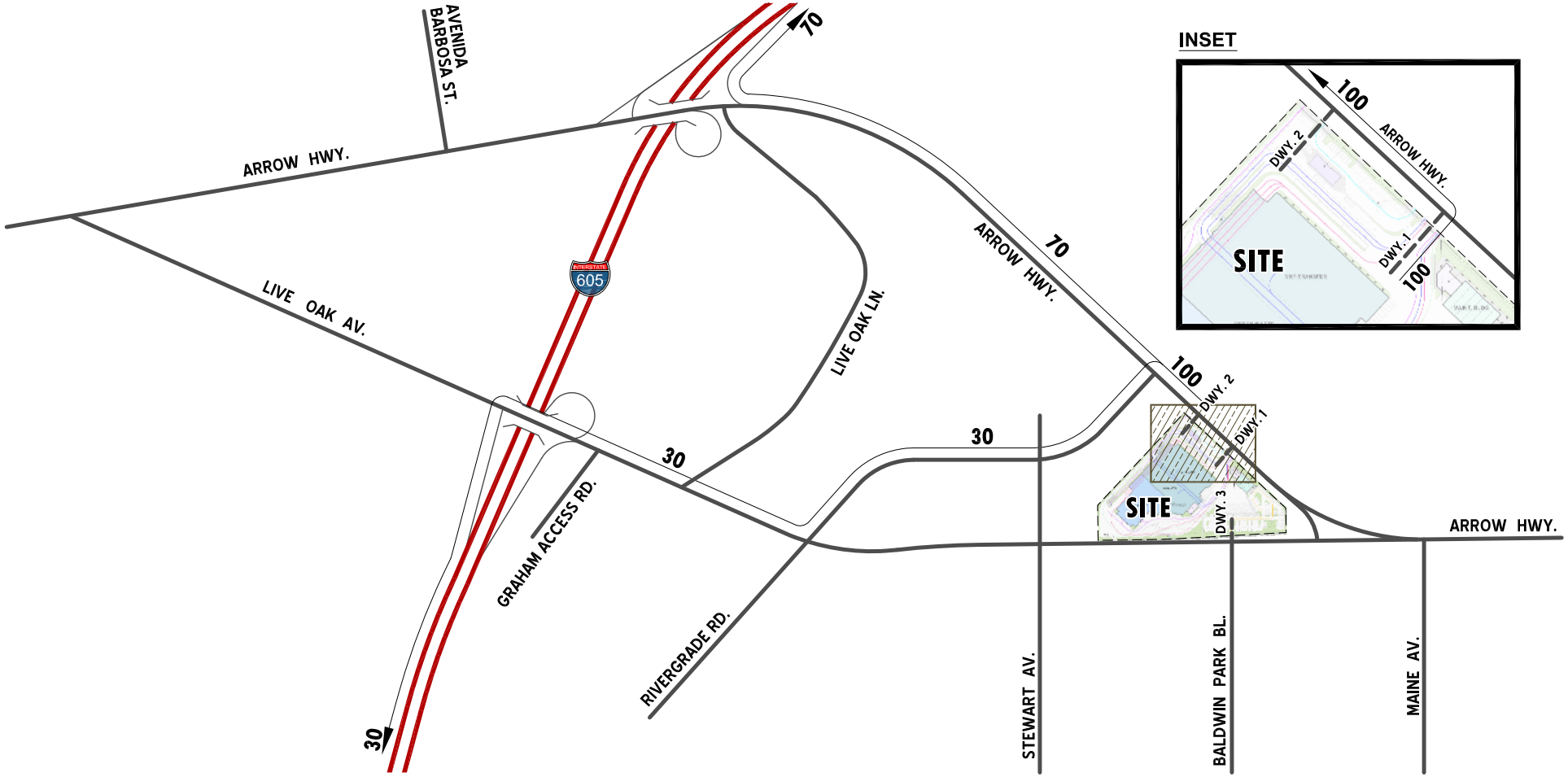
LEGEND:

10 = PERCENT TO PROJECT

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EXHIBIT 2-D (Page 2 of 2)

TRANSFER & RECYCLABLE LOADOUT TRUCKS OUTBOUND TRIP DISTRIBUTION



LEGEND:

10 = PERCENT FROM PROJECT

N

transported to one of several landfills in Los Angeles County, Riverside County, or Tulare County. Thirty percent (30%) of the Transfer Trucks are anticipated to travel to/from the south (via the I-605 Freeway) and 70% to/from the north (via the I-605 Freeway).

Exhibit 2-E presents the Employee trip distribution patterns for the proposed project. As shown on Exhibit 2-E, 30% of the proposed project's employee vehicles are anticipated to travel along the I-605 Freeway to the north and 30% to the south, and 10% to the east towards the northerly portions of Baldwin Park and the easterly portions of Irwindale. As also shown on Exhibit 2-E, 5% of employee traffic is expected to travel to the west along Live Oak Avenue, 5% along Rivergrade Road, 5% along Stewart Avenue and 10% along Baldwin Park Boulevard.

Exhibit 2-F presents the "Convenience Store / Fueling Facility" trip distribution patterns for the proposed project. As shown on Exhibit 2-F, 20% of the Convenience Store / Fueling Facility traffic is anticipated to be captured within the project site. The following summarizes the other trip distribution percentages for the Convenience Store / Fueling Facility:

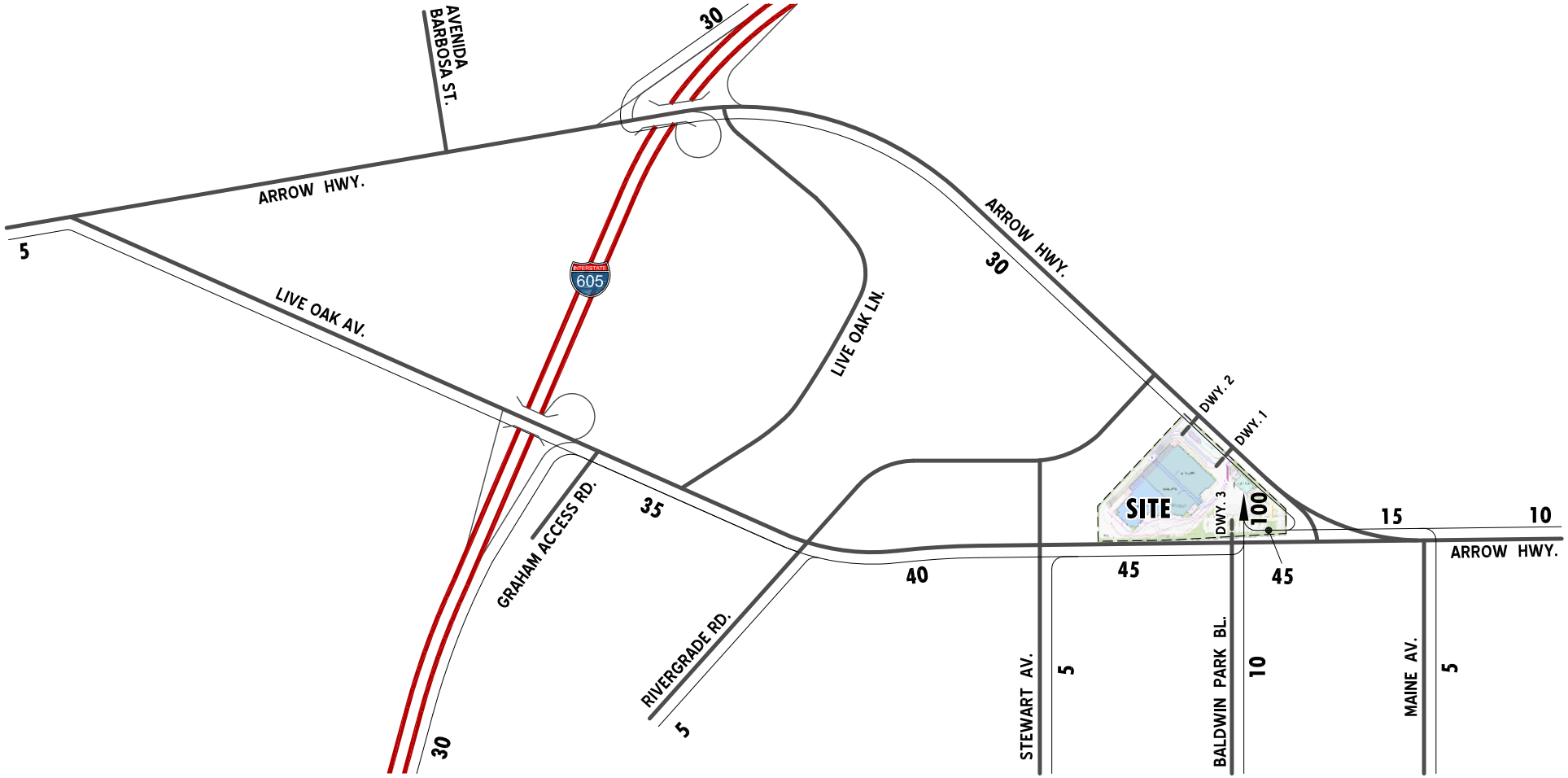
- 5% to the north along the I-605 Freeway
- 5% to the north along Avenida Barbosa Street
- 5% to the west along Arrow Highway
- 5% to the south to/from the I-605 Freeway
- 5% along Rivergrade Avenue
- 15% within the industrial areas immediately west / northwest of the project site.
- 10% to / from Stewart Avenue
- 10% along Baldwin Park Boulevard
- 10% along Maine Avenue
- 10% to the east along Arrow Highway

2.6 PROJECT TRIP GENERATION

Information on trip generation rates for the project's proposed use (i.e., solid waste transfer station) is not readily available in the Institute of Transportation Engineers (ITE) Trip Generation Informational Report (9th Edition). However, the trip generation (truck and employee passenger cars) for the proposed project has been calculated based on (1) data collected by Urban Crossroads, Inc. for similar existing land uses, and (2) Peak to daily relationships (for manufacturing type facilities) illustrated in the ITE Trip Generation Informational Report. The Convenience Store / Fueling Facility store's trip generation has been calculated via ITE trip generation rates. This facility will be open to the public.

Heavy vehicles, such as Collection Trucks and Transfer Trucks, occupy more space, and experience inferior performance when compared with passenger cars. Historically, the effect of heavy vehicles on traffic flow has been accounted for through the use of Passenger Car Equivalent (PCE) factors. These factors were developed to account for the effects of heavy vehicles when traffic is operating at free-flow conditions. However, the effect of heavy vehicles during congestion is significantly greater than that during free flow conditions. This is mainly due to the fact that the acceleration and deceleration cycles, a situation that is normally experienced during congestion or stop-and-go conditions, impose an extra limitation on the performance of heavy vehicles. With this in mind, a conservative PCE factor of

EMPLOYEE (PASSENGER CAR) INBOUND TRIP DISTRIBUTION



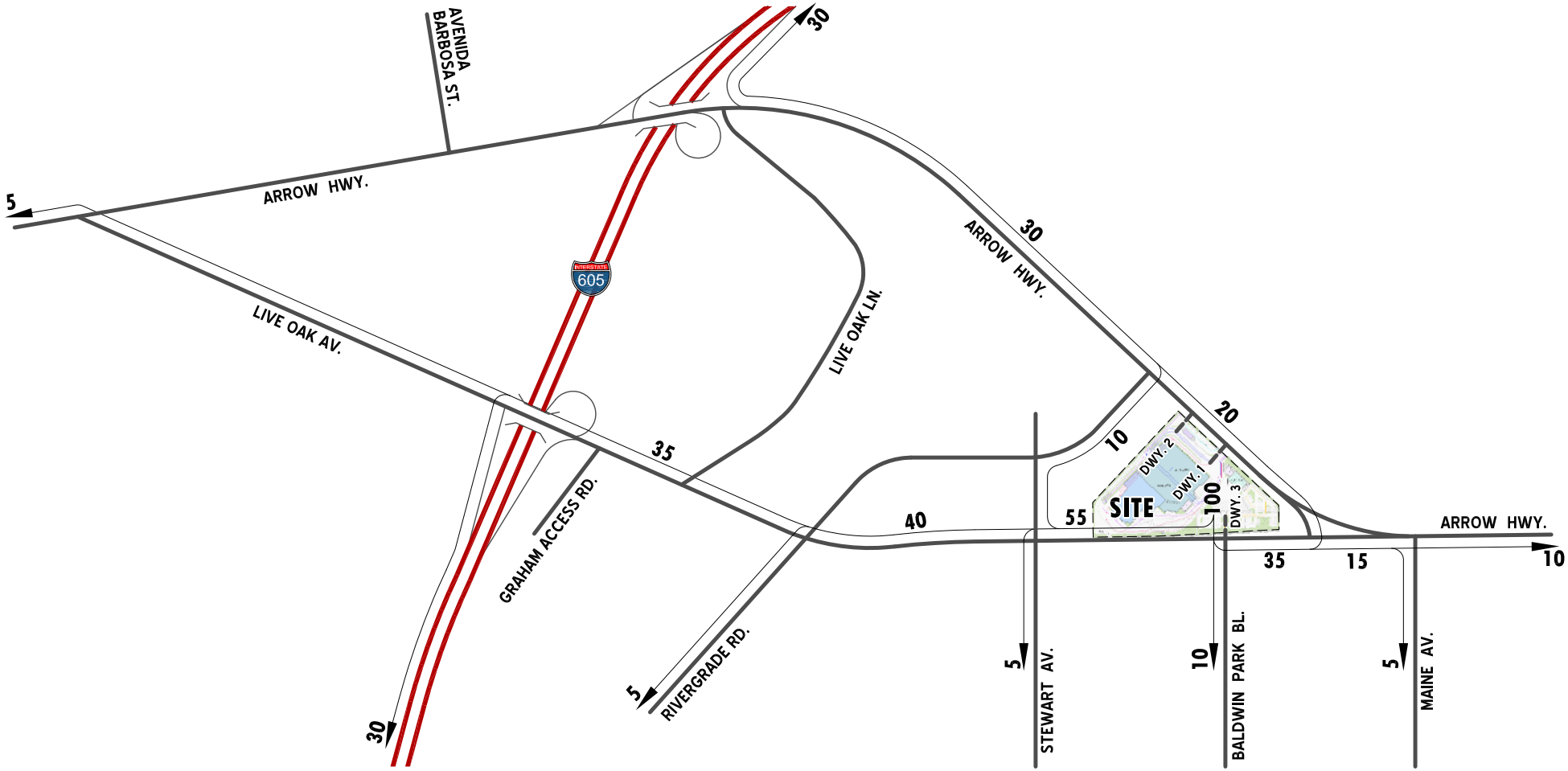
LEGEND:

10 = PERCENT TO PROJECT

N

EXHIBIT 2-E (Page 2 of 2)

EMPLOYEE (PASSENGER CAR) OUTBOUND TRIP DISTRIBUTION

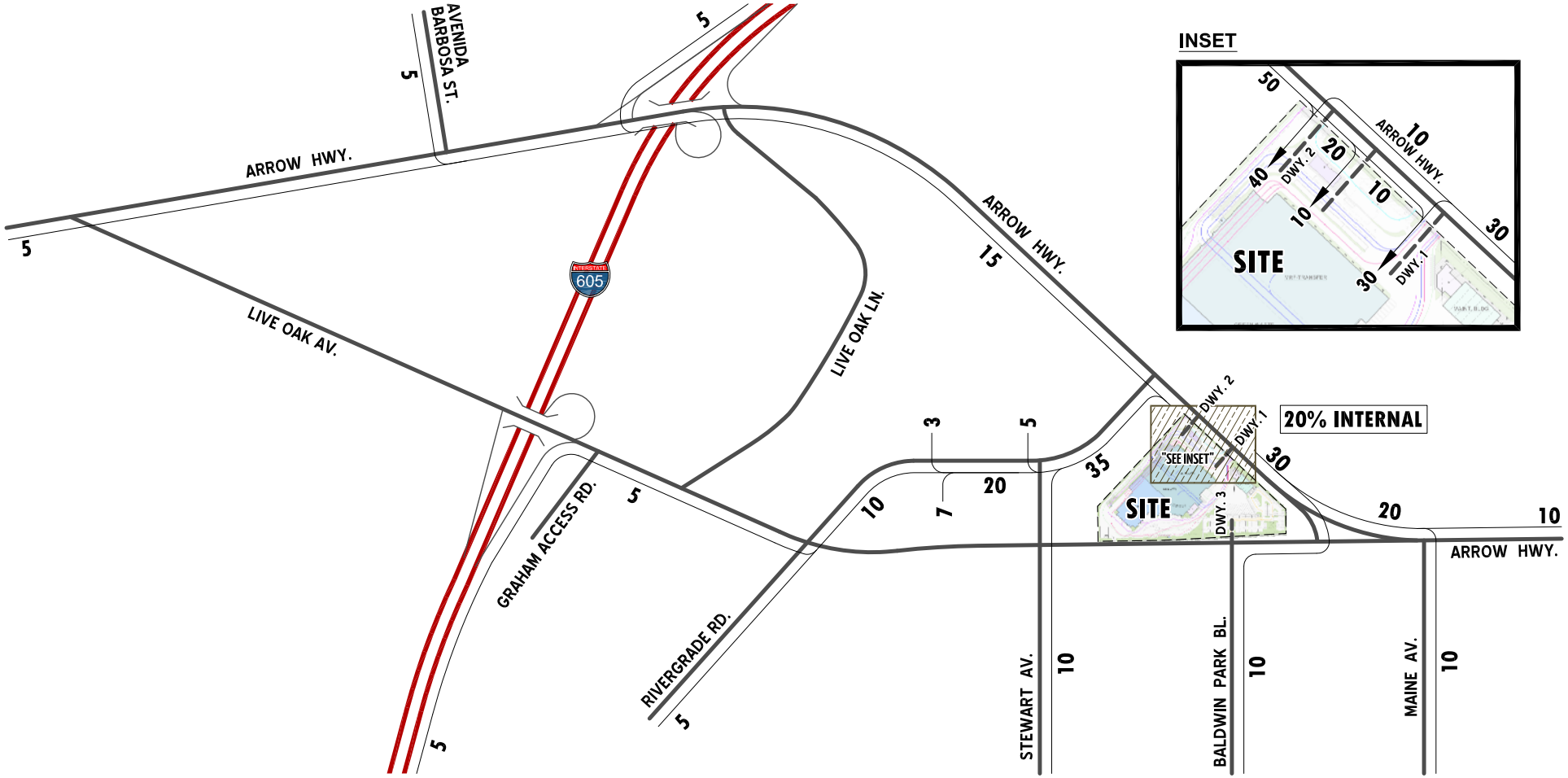


LEGEND:

10 = PERCENT FROM PROJECT

N

CONVENIENCE STORE/FUELING FACILITY
INBOUND TRIP DISTRIBUTION



LEGEND:

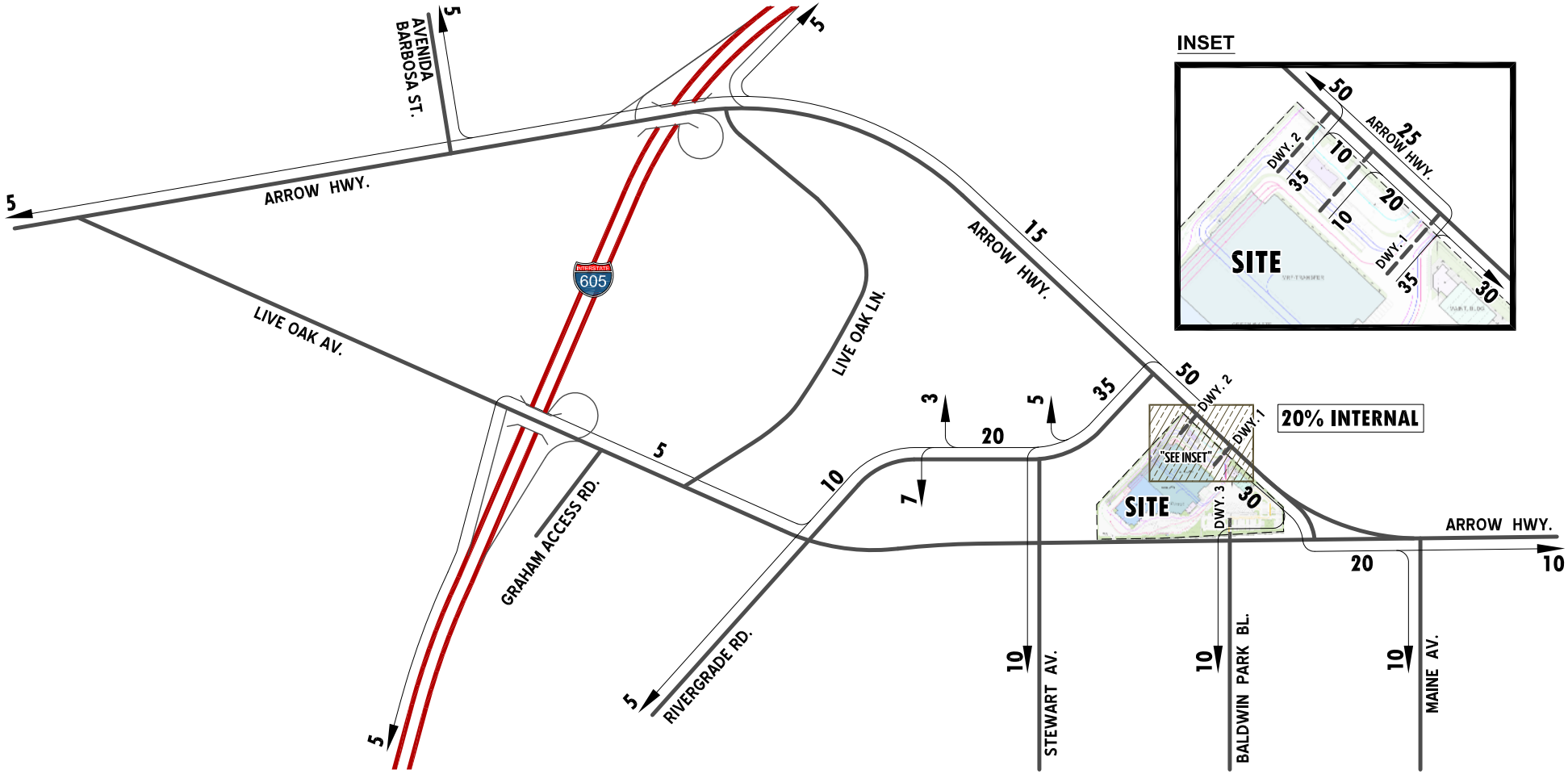
10 = PERCENT TO PROJECT

NOTE: TRIP DISTRIBUTION APPLIES TO ADDED TRIPS, NOT PASS-BY TRIPS WHICH ARE ALREADY ON THE ROADWAY SYSTEM.

N

EXHIBIT 2-F (Page 2 of 2)

CONVENIENCE STORE/FUELING FACILITY OUTBOUND TRIP DISTRIBUTION



LEGEND:

10 = PERCENT FROM PROJECT

NOTE: TRIP DISTRIBUTION APPLIES TO ADDED TRIPS, NOT PASS-BY TRIPS WHICH ARE ALREADY ON THE ROADWAY SYSTEM.

N

1.5 has been used for Self-Haul Trucks, 2.7 has been used for Collection Trucks and 3.7 for Transfer Trucks. These PCE values are consistent with numerous other Solid Waste Facility Permits (SWFP) available for review on the California Integrated Waste Management Board (CIWMB) website.

Empirical data collected by Urban Crossroads Inc. at various transfer station locations in southern California were considered in the development of project trip generation rates. The data is included as Attachment 1 within Appendix 1. Attachment 1 also includes calculations performed by Urban Crossroads, Inc. staff to evaluate trip generation patterns and develop trip generation rates for each truck type. The empirical data includes truck axle counts for facilities of various sizes, so the weighted average trip rate was calculated. Although the sample projects are not as large as the proposed Project, the application of derived trip rates to the Irwindale facility yields conservatively high estimates of travel activity associated with the site.

Table 2-1 summarizes the data utilized to calculate the proposed project's trip generation for the proposed project. Each employee is assumed to generate 2 trips per day (e.g., each employee drives individually and enters and exits the site once per day). This is a conservative approach, since many of the employees can be expected to carpool or use alternative modes of transport. At the same time, this conservative approach allows / accounts for incidental trips entering and exiting the site (visitors, etc.).

Table 2-1 and 2-2 present the project's trip generation. As shown on Table 2-2, the proposed project is anticipated to generate a net total of approximately 8,333 passenger car equivalent (PCE) trip-ends per day, with 664 AM peak hour trips and 664 PM peak hour trips.

2.7 PROJECT ONLY VOLUMES

The project only related average daily traffic (ADT) volumes are shown on Exhibit 2-G. Similarly, Exhibit 2-H and Exhibit 2-I present the project only AM and PM peak hour volumes, respectively. As shown on these exhibits, Arrow Highway is projected to carry the most project related traffic with approximately 7,200 vehicles per day (vpd) immediately north of Driveway 2. Project only daily traffic contributions on Live Oak Avenue other locations along Arrow Highway between the project site and the I-605 Freeway would generally range between 300 and 4,200 vehicles (passenger car equivalents) per day.

"Project only" peak hour 2-way (link) traffic volumes are presented on Exhibit 2-J. As shown on Exhibit 2-J, the project is anticipated to generate the most peak hour trips along Arrow Highway immediately north of Driveway 2. A substantial amount of project related traffic is also anticipated to travel along Live Oak Avenue, east of the I-605 Freeway. The 327 AM and 308 PM trips along Arrow Highway is reflective of the truck trips related to cities located north of the project site and of the landfill transfer truck trips destined towards the City of Victorville, the Sunshine Canyon Landfill, the Chiquita Canyon Sanitary Landfill, and Central Valley Landfill (Tulare County). By comparing Exhibit 2-J and Exhibit ES-B (intersection analysis location map), all major intersections projected to carry 50 (or more) peak hour trips have been evaluated in this traffic study.

TABLE 2-1
PROJECT TRIP GENERATION RATES

LAND USE	UNIT[1]	AM PEAK HOUR			PM PEAK HOUR			DAILY
		IN	OUT	TOTAL	IN	OUT	TOTAL	
Truck Trips - 2-axle[2]	Site TPD	0.002	0.003	0.005	0.002	0.002	0.004	0.041
Truck Trips - 3-axle[2]	Site TPD	0.008	0.009	0.017	0.013	0.010	0.024	0.275
Truck Trips - 4-axle[2]	Site TPD	0.004	0.004	0.008	0.002	0.002	0.004	0.093
Employees (Passenger Cars)[3]	EMP	0.274	0.102	0.376	0.149	0.189	0.338	2.000
Convenience Store (ITE LU 853)	TSF	20.46	20.46	40.92	25.46	25.46	50.92	845.60

[1] Site TPD = Tons Per Day for entire site - Appendix A shows empirical data calculations used to develop trip rates; EMP = Employees; TSF = Thousand Square Feet

[2] Daily and peak hour quantities have been obtained from empirical data for similar uses, applied to the site maximum processing of 6,000TPD.

[3] Daily quantities assume 2 trips / employee. AM and PM peak hour to daily relationships have been based on ITE Land Use Code "140 EMP" (Manufacturing)

TABLE 2-2
PROJECT BUILDOUT (2016) TRIP GENERATION SUMMARY

LAND USE	COMMODITY DIRECTION	QUANTITY	UNIT[1]	AM PEAK HOUR IN	AM PEAK HOUR OUT	AM PEAK HOUR TOTAL	PM PEAK HOUR IN	PM PEAK HOUR OUT	PM PEAK HOUR TOTAL	DAILY
Self-Haul Trucks (525 TPD)[2] - 2-axle	INBOUND	6,000	Site TPD	12	19	31	12	12	24	249
Packer Trucks (3,812 TPD)[2] - 3-axle	*INBOUND*	*6,000*	*Site TPD*	*33*	*37*	*70*	*54*	*43*	*97*	*1,137*
End Dump Trucks (250 TPD)[2] - 3-axle	*INBOUND*	*6,000*	*Site TPD*	*2*	*2*	*4*	*3*	*3*	*6*	*66*
Roll-Off Trucks (1,496 TPD)[2] - Collection & Transfer - 3-axle	*IN / OUT*	*6,000*	*Site TPD*	*13*	*14*	*27*	*21*	*17*	*38*	*445*
Total 3-axle	IN / OUT	6,000	Site TPD	48	53	101	78	63	141	1,648
Transfer Trucks incl. Recyclable Loadout (5,918 TPD)[2] - 4-axle	OUTBOUND	6,000	Site TPD	24	24	48	9	14	23	559
NET TRUCK TRIPS:				**84**	**96**	**180**	**99**	**89**	**188**	**2,456**
Self-Haul Trucks (PCE = Truck x 1.5)				*18*	*29*	*47*	*18*	*18*	*36*	*374*
Collection (Packer and End Dump) and all Roll-Off Trucks (PCE = Truck x 2.7)				*130*	*143*	*273*	*211*	*170*	*381*	*4,450*
Transfer Trucks (PCE = Truck x 3.7)				*89*	*89*	*178*	*33*	*52*	*85*	*2,068*
NET TRUCK TRIPS (PCE):				**237**	**261**	**498**	**262**	**240**	**502**	**6,892**
Employees (Total of 345 Employees daily)[3]				95	35	130	51	65	117	690
Transfer Station Subtotal (PCE)[5]				***332***	***296***	***628***	***313***	***305***	***619***	***7,582***
Convenience Market W/Pumps		2.4	TSF	49	49	98	61	61	122	2,029
- Pass by (63%)[4]				*-31*	*-31*	*-62*	*-38*	*-38*	*-77*	*-1,279*
Convenience Market W/Pumps Subtotal				***18***	***18***	***36***	***23***	***23***	***45***	***751***
TOTAL PROJECT TRIPS (PCE)[5]				**350**	**314**	**664**	**336**	**328**	**664**	**8,333**

[1] Site TPD = Tons Per Day for entire site - Appendix A shows empirical data calculations used to develop trip rates; EMP = Employees; TSF = Thousand Square Feet

[2] Daily and peak hour rates obtained from empirical data for similar uses, are applied to the site maximum processing of 6,000TPD. 3-axle trip gen by truck type is factored based on TPD for each type.

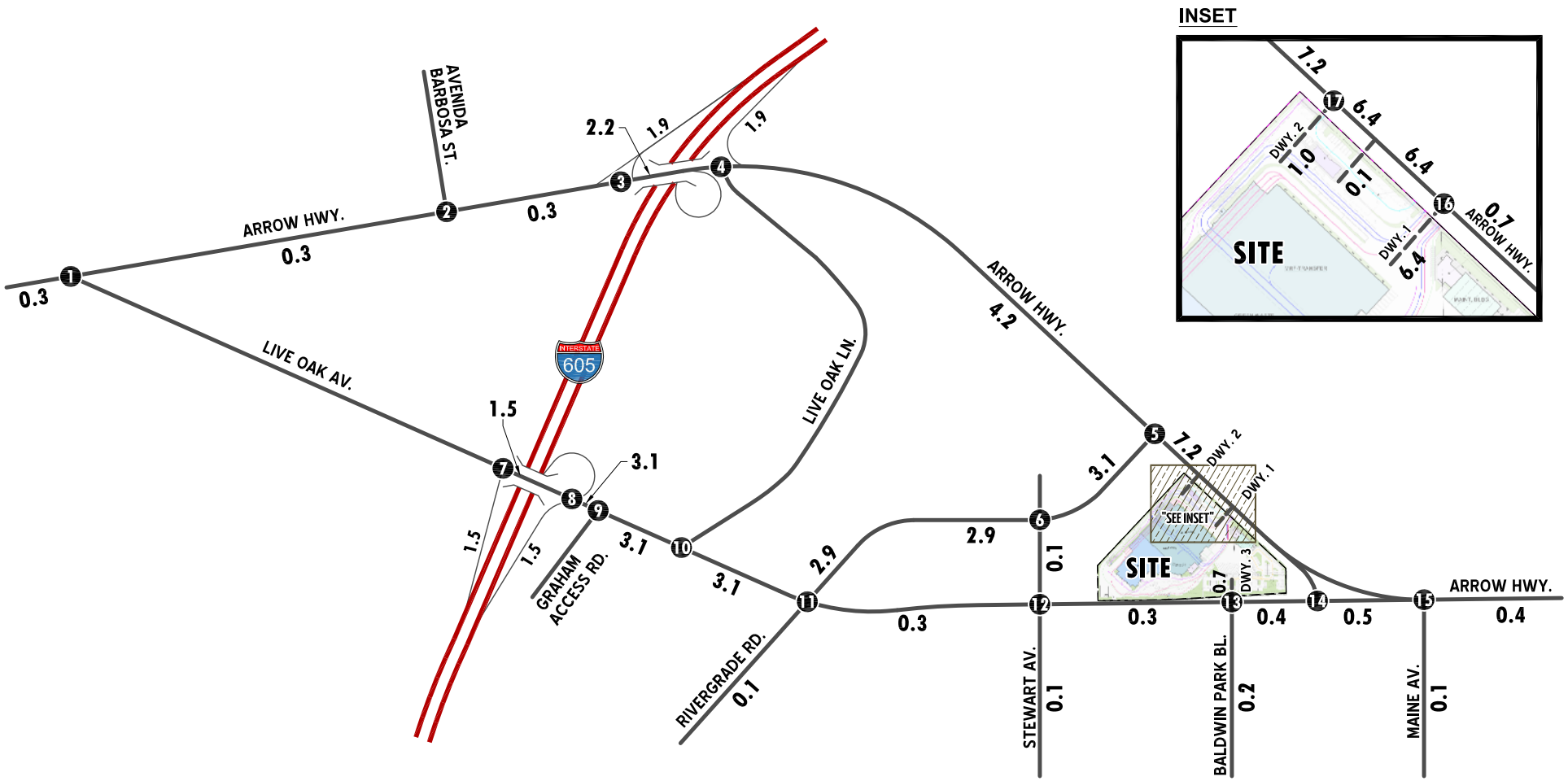
[3] Daily quantities assume 2 trips / employee. AM and PM peak hour to daily relationships have been based on ITE Land Use Code "140 EMP" (Manufacturing)

[4] Pass by % is based on Table 5-12 from the ITE Trip Generation Handbook 2nd Edition (2004)

[5] TOTAL TRIPS (PCE) = Net Truck Trips (PCE) + Employees + Convenience Market W/Pumps.

EXHIBIT 2-G

PROJECT AVERAGE DAILY TRAFFIC (ADT)



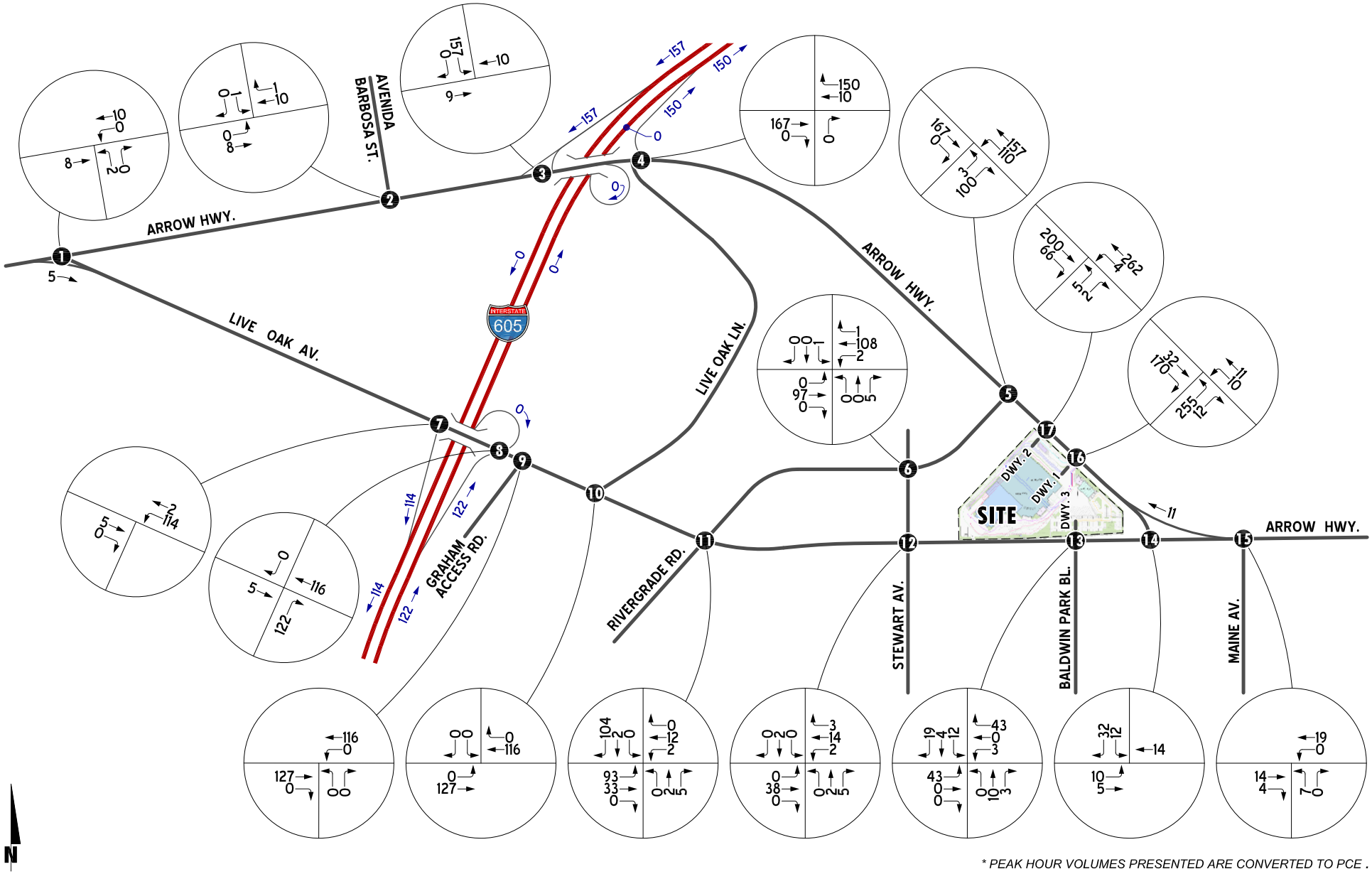
LEGEND:

10.0 = VEHICLES PER DAY (1000'S)

N

EXHIBIT 2-H

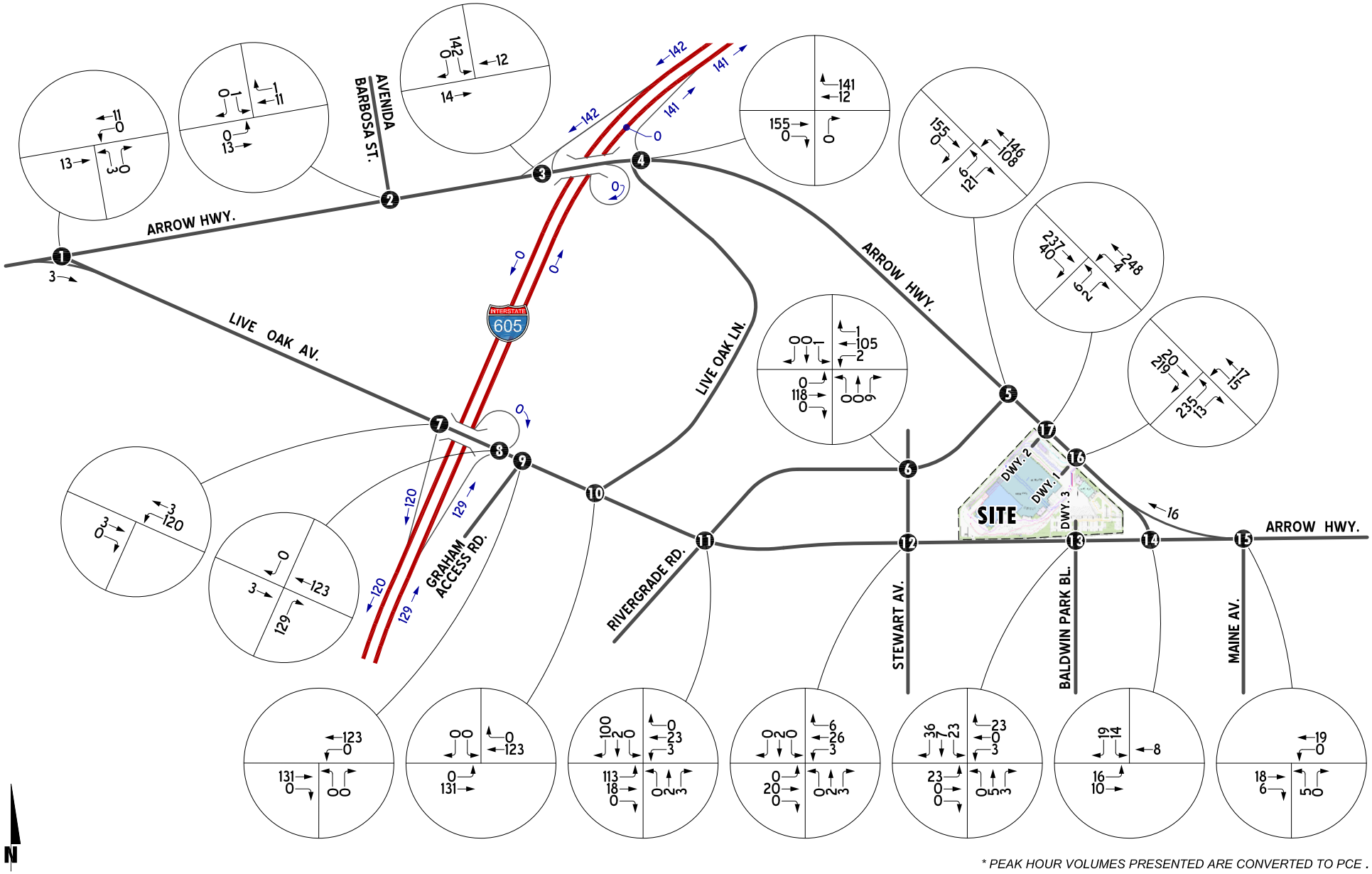
PROJECT AM PEAK HOUR INTERSECTION VOLUMES



* PEAK HOUR VOLUMES PRESENTED ARE CONVERTED TO PCE .

EXHIBIT 2-I

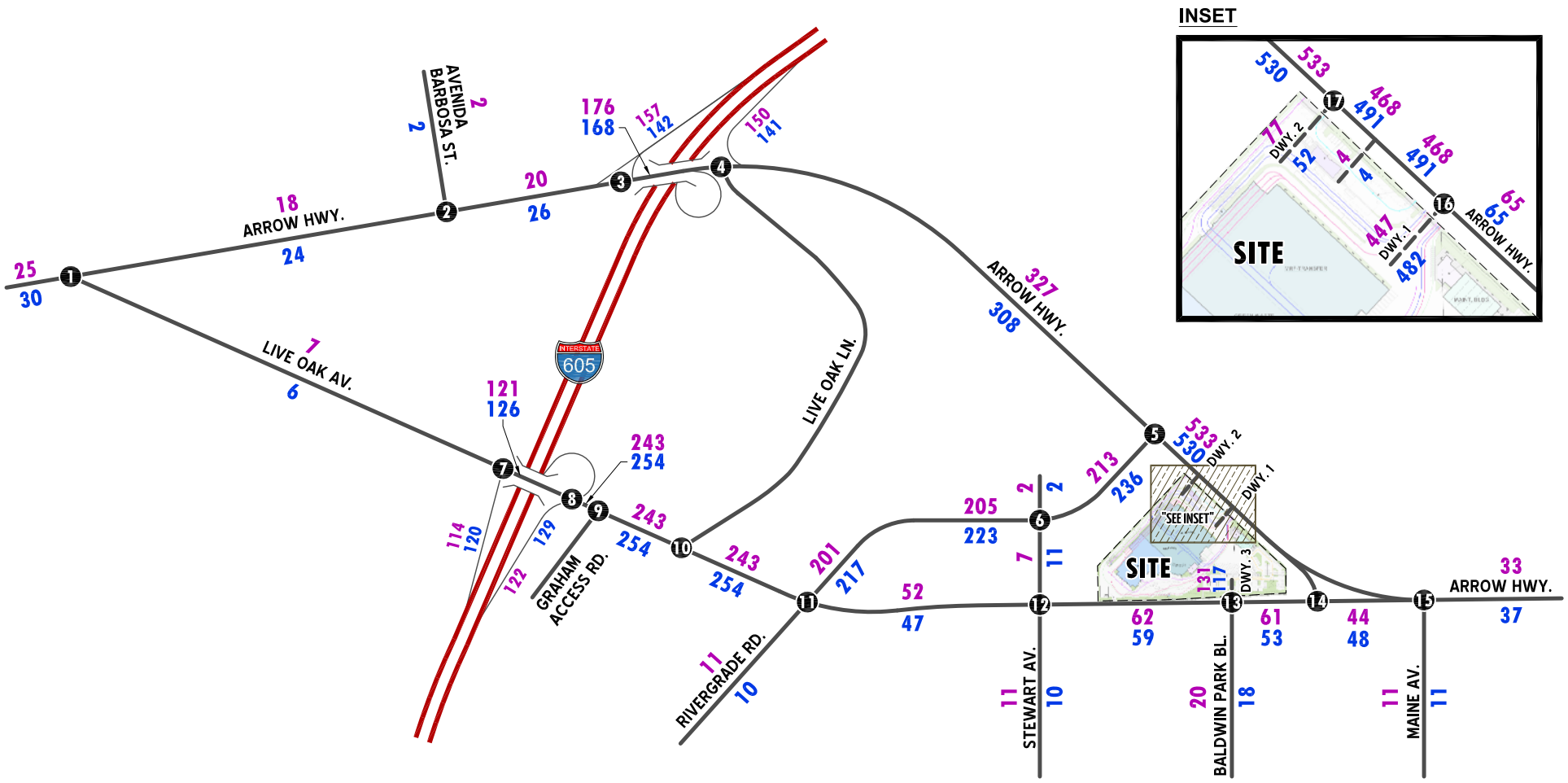
PROJECT PM PEAK HOUR INTERSECTION VOLUMES



* PEAK HOUR VOLUMES PRESENTED ARE CONVERTED TO PCE .

EXHIBIT 2-J

PROJECT ONLY PEAK HOUR LINK VOLUMES



LEGEND:

100 = PROJECT ONLY AM PEAK HOUR
LINK (2-WAY) VOLUMES, PASSENGER CAR EQUIVALENTS (PCE)

100 = PROJECT ONLY PM PEAK HOUR
LINK (2-WAY) VOLUMES, PASSENGER CAR EQUIVALENTS (PCE)

N

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3.0 AREA CONDITIONS

This section of the report summarizes existing roadway and traffic conditions in the study area. All major intersections anticipated to carry 50 (or more) peak hour trips (passenger car equivalents) have been evaluated in this traffic study. The existing number of lanes and traffic control devices for existing intersections are presented, along with existing traffic count data collected for this study. This data was used to analyze existing traffic operations in the study area. Existing plans for roadway improvements are also described in this section.

3.1 EXISTING ROADWAY SYSTEM CIRCULATION NETWORK

The study area includes a total of seventeen (17) existing and future intersections as shown on Exhibit ES-B. Of these seventeen (17) intersections, the existing study area circulation network includes fifteen (15) intersections analysis locations shown on Table ES-1. The other two (2) intersections in the study area are future planned intersections (Project driveways) that do not currently exist.

Exhibit 3-A identifies the existing number of through lanes and intersection controls for the study area roadways. As shown on Exhibit 3-A, Arrow Highway and Live Oak Avenue exist today as four (4) lane divided roadways east of the I-605 Freeway. The speed limit on both Arrow Highway and Live Oak Avenue is currently 45 mile per hour (mph). The majority of existing land uses east of the I-605 Freeway, south of Arrow Highway (and north of Live Oak Avenue) are currently industrial. Rivergrade Road and Stewart Avenue (between Live Oak Avenue and Arrow Highway) are primarily utilized by trucks to the industrial uses that serve this area of Irwindale. As also shown on Exhibit 3-A, all of the existing study area intersections immediately adjacent to the project site are signalized. The only existing unsignalized intersections evaluated in this traffic study are the I-605 Freeway Northbound Ramps and Live Oak Lane (private industrial road) intersections along Live Oak Avenue and Arrow Highway.

3.2 TRANSIT SERVICE

The study area is currently served by the Foothill Transit Agency with bus service along Live Oak Avenue via Route 492 and Arrow Highway via Route 272. Portions of Live Oak Avenue, within the study area, is also served by the Baldwin Park Transit Agency via Teal Line route.

Exhibit 3-B illustrates the Foothill Transit Agency bus routes for the study area.

3.3 EXISTING PEDESTRIAN AND BICYCLE FACILITIES

Existing pedestrian and bicycle facilities (e.g., crosswalks, sidewalks, bike lanes, etc.) within the study area are shown on Exhibit 3-C. As shown in Exhibit 3-C, the only existing bike path within the study area is located on the riverbed.

3.4 EXISTING DAILY TRAFFIC VOLUMES

Existing (2016) average daily traffic (ADT) volumes on arterial highways throughout the study area are shown on Exhibit 3-D. The ADT volumes are either based on traffic counts or have been estimated by

EXHIBIT 3-A

EXISTING NUMBER OF THROUGH LANES AND INTERSECTION CONTROLS

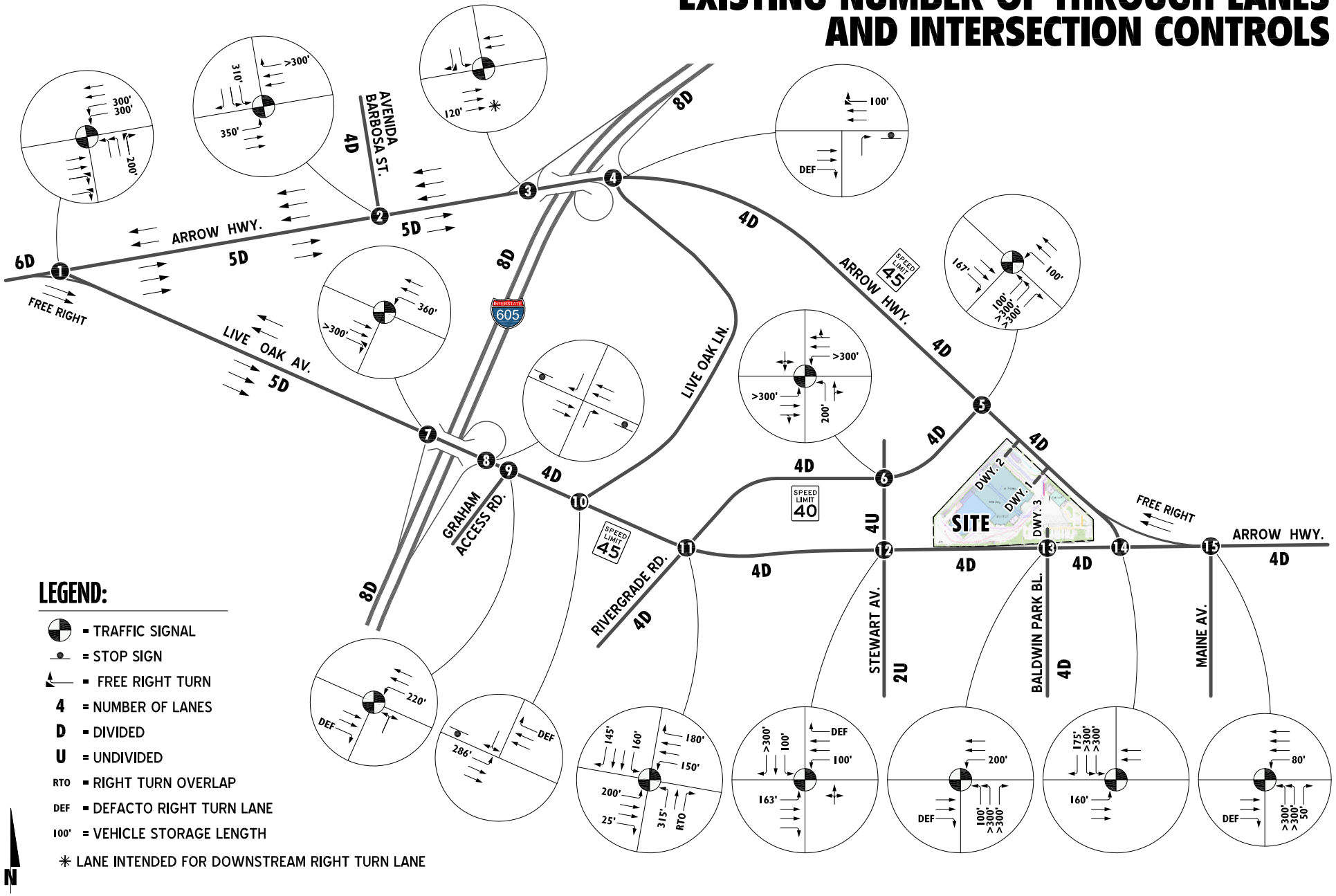


EXHIBIT 3-B

EXISTING TRANSIT SERVICES



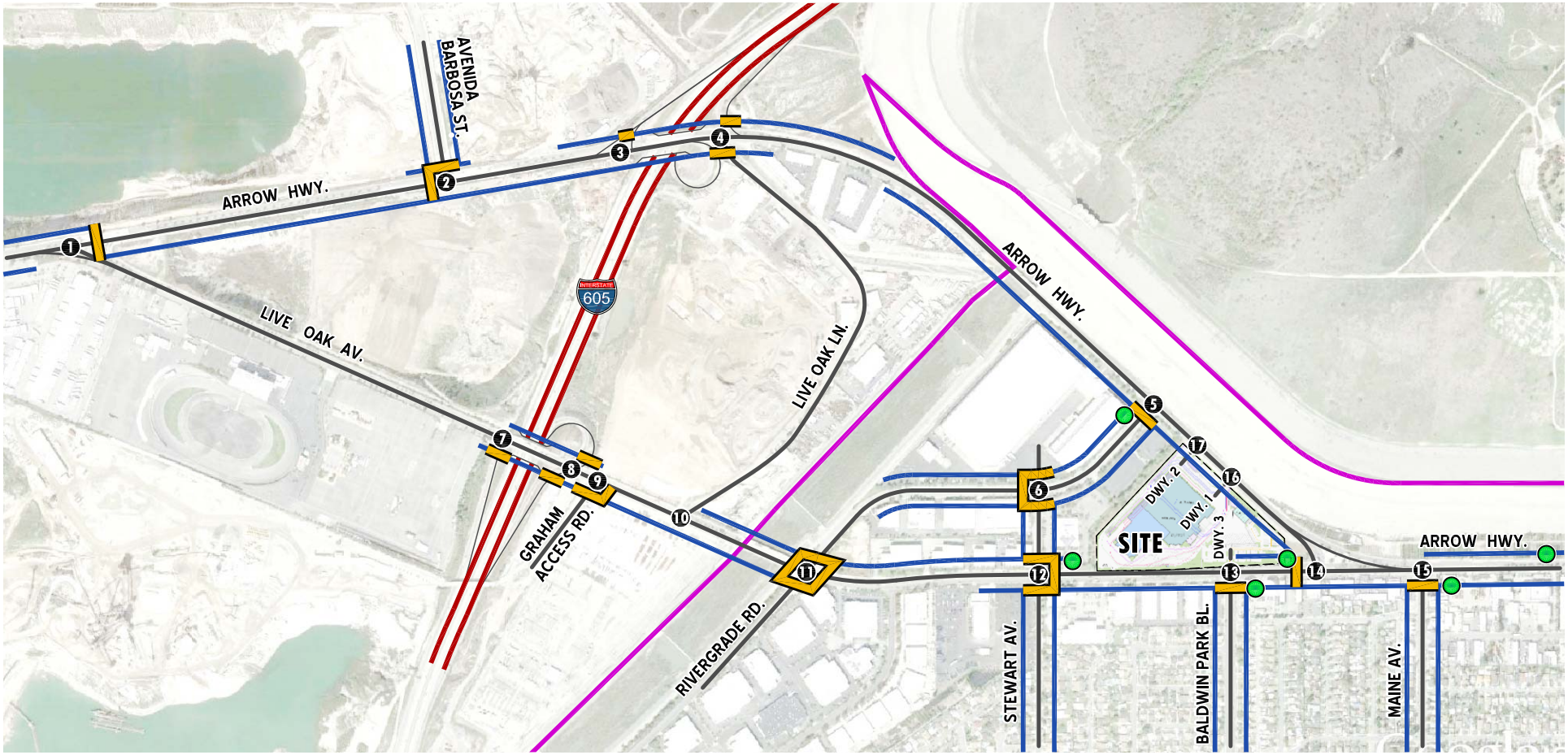
LEGEND:

- 17 = INTERSECTION ID
- = FOOTHILL TRANSIT ROUTE 272
- = FOOTHILL TRANSIT ROUTE 492
- = BUS STOP

N

EXHIBIT 3-C

EXISTING PEDESTRIAN AND BICYCLE FACILITIES



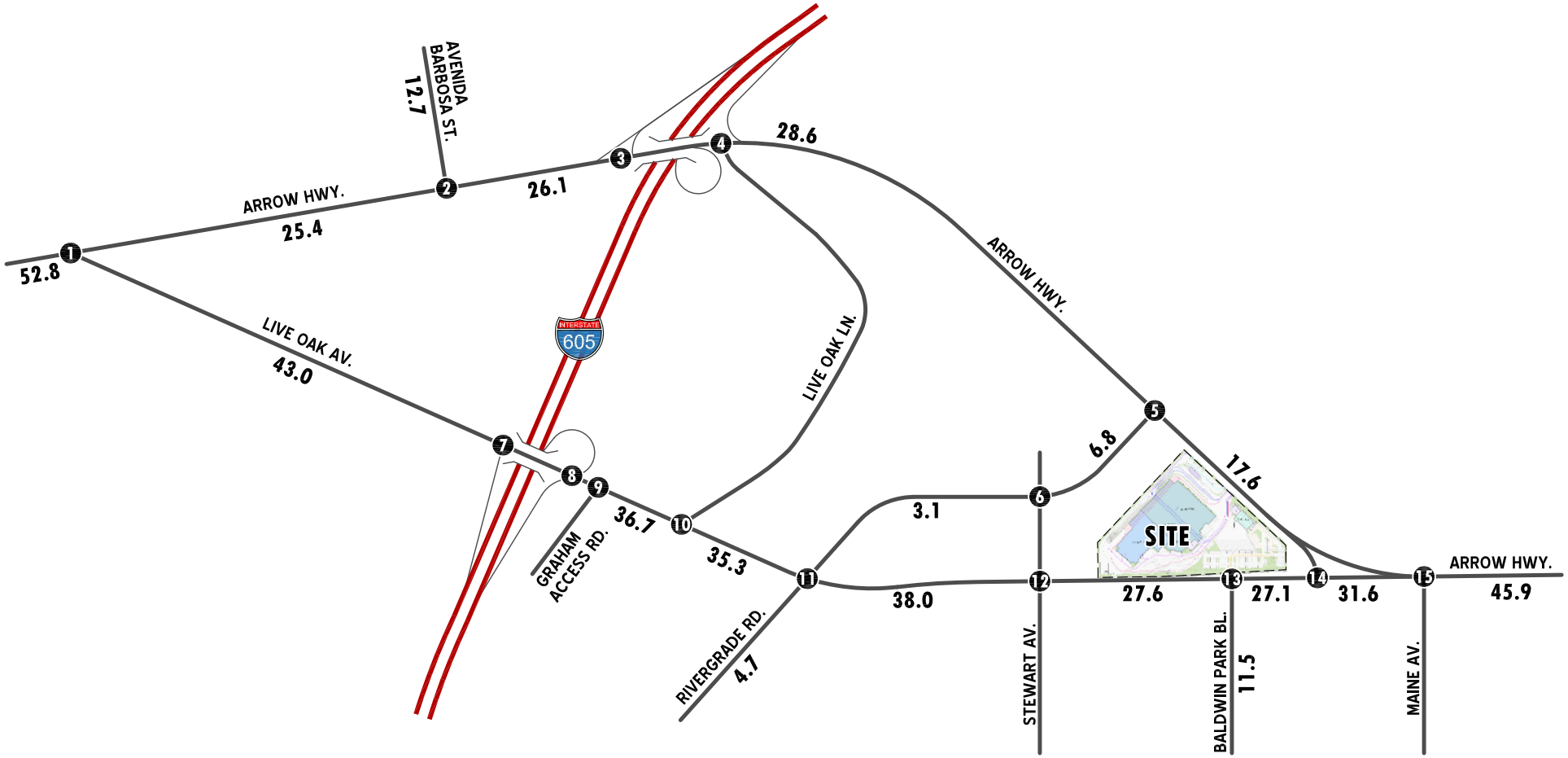
LEGEND:

- 17 = INTERSECTION ID
- = BUS STOP
- = BIKE PATH
- = SIDEWALK
- = CROSSWALK

N

EXHIBIT 3-D

EXISTING AVERAGE DAILY TRAFFIC (ADT)



LEGEND:

10.0 = VEHICLES PER DAY (1000'S)

N

factoring up peak hour counts. The following formula was used to estimate the daily volume for each intersection leg if daily traffic counts were not available:

Weekday PM Peak Hour (Approach Volume + Exit Volume) x 12 = Leg Volume

As shown on Exhibit 3-D, the highest daily traffic volumes in the study area occur on Live Oak Avenue, west of Arrow Highway (North), which currently carries approximately 52,800 vehicles per day (VPD). Arrow Highway, east of Maine Avenue carries approximately 45,900 VPD.

3.5 EXISTING PEAK HOUR TRAFFIC VOLUMES

The intersection LOS analysis is based on the traffic volumes observed during the peak hour conditions using traffic count data conducted for Urban Crossroads in February 2016 (traffic count worksheets are included in Appendix "C") and Existing data extracted from Irwindale Regional Shopping Center TIA and Olive Pit Mining and Reclamation Project TIA. The AM peak hour traffic volumes were determined by counting the two-hour period from 7:00 to 9:00 AM on a typical weekday. Similarly, the PM peak hour traffic volumes were identified by counting the two-hour period from 4:00 to 6:00 PM on a typical weekday. The highest four consecutive 15-minute periods traffic counts have been used for analysis. The count includes the vehicle classification as shown below per the City of Irwindale traffic study guidelines:

- Passenger Cars
- 2-Axle Buses/Recreational Vehicles
- 3-Axle Heavy Vehicles
- 4 or more Axle Heavy Vehicles

The overall existing count volumes illustrated on the exhibits and used for the analysis for the study are calculated passenger car equivalent (PCE) volumes. These raw PCE volumes are then reviewed for flow conservation between closely spaced intersections and adjusted to ensure reasonable flow conservation if necessary was also performed.

The final Existing (2016) AM and PM Peak hour volumes are shown on Exhibit 3-E and Exhibit 3-F, respectively.

The I-605 and I-210 Freeway mainline volume data were obtained from the Caltrans Performance Measurement System (PeMS) website for the purposes of this analysis. Freeway mainline peak hour volumes have been obtained for the week of February 26th through 28th, 2016 and have been flow conserved with freeway-ramp-to-arterial peak hour count data conducted during these same dates. In an effort to conduct a conservative analysis, the maximum value observed within the three (3) day period was utilized for the morning (AM) and evening (PM) peak hours. Truck data has been obtained from the Caltrans Traffic Data Branch website. The Caltrans 2014 Annual Average Daily Truck Traffic on the California State Highway System is utilized which presents a 6.89% truck percentage along the I-605 freeway and 7.06% truck percentage along the I-210 freeway within the study area. For the purpose of this analysis, actual vehicles (as opposed to passenger-car-equivalent volumes) and a parameter of 7% (rounded value) truck percentage have been utilized for the calculation of the basic freeway segment and merge/diverge analysis. The source data and freeway volume summary is included as Appendix "D" to this report.

EXHIBIT 3-E

EXISTING AM PEAK HOUR INTERSECTION VOLUMES

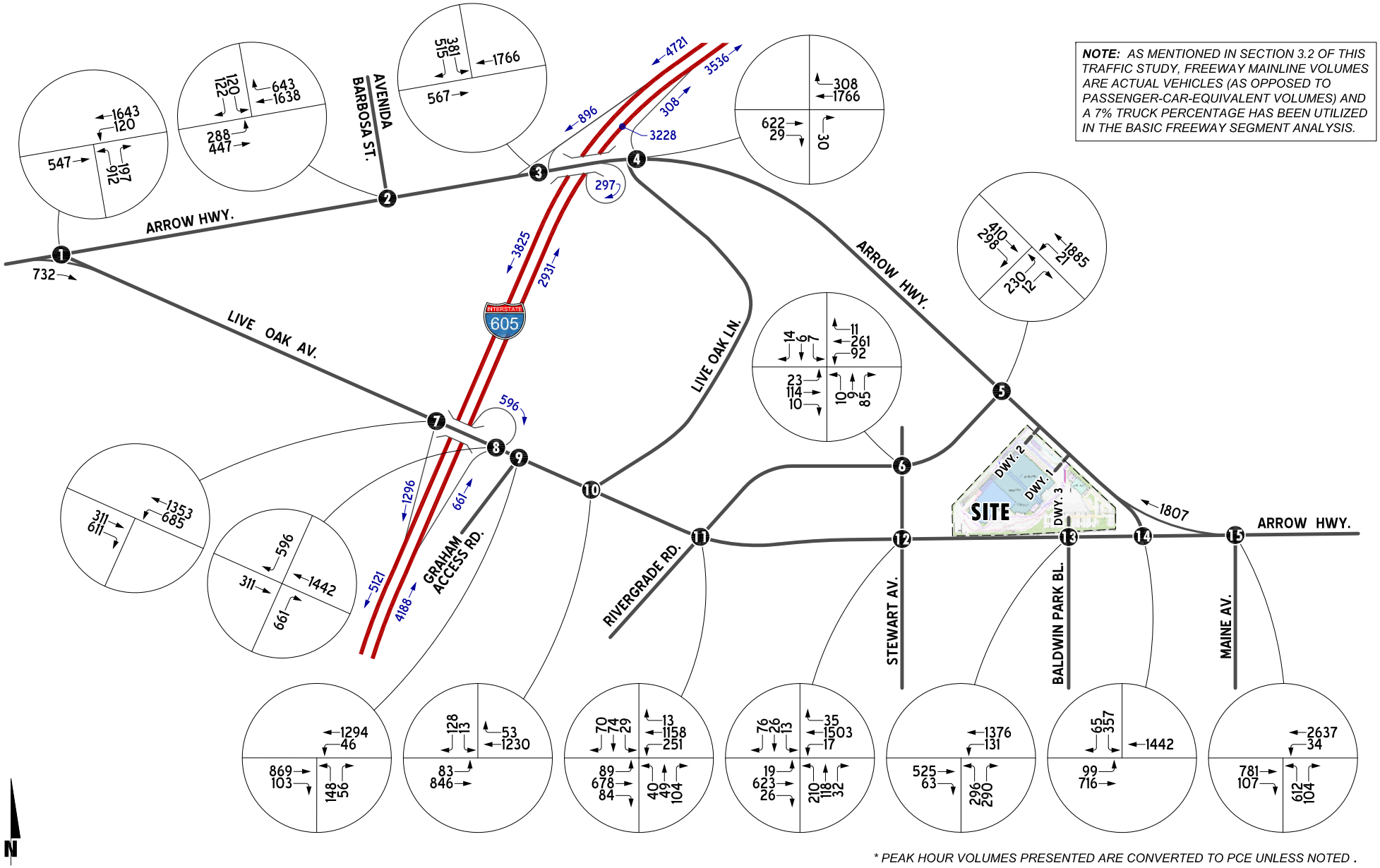
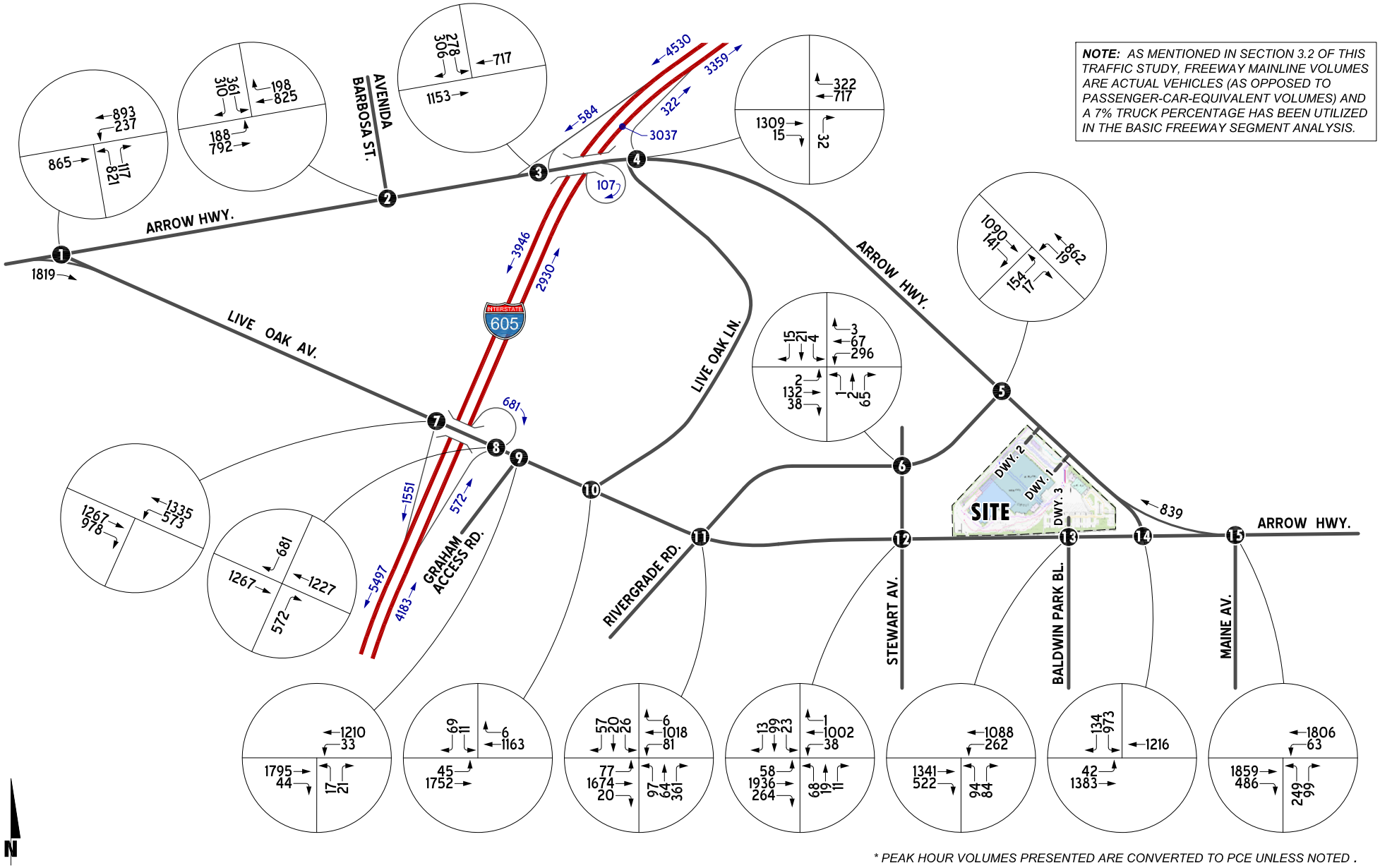


EXHIBIT 3-F

EXISTING PM PEAK HOUR INTERSECTION VOLUMES



* PEAK HOUR VOLUMES PRESENTED ARE CONVERTED TO PCE UNLESS NOTED .

The Existing (2016) freeway mainline directional volumes for the AM and PM peak hours are also provided on Exhibit 3-E and Exhibit 3-F, respectively.

For freeway ramp facilities, passenger car equivalent volumes have been used. The freeway on/off ramp AM and PM peak hour volumes are also provided on Exhibit 3-E and Exhibit 3-F, respectively.

3.6 EXISTING (2016) TRAFFIC CONDITIONS

The existing conditions analyses include intersection delay and queuing analyses for surface ramp intersections; mainline analysis for freeway segments; and merge/diverge analyses for ramp exits and entrances. The analysis methodologies were described previously in Section 1.

3.6.1 EXISTING INTERSECTION DELAY ANALYSIS

Existing (2016) peak hour traffic operations have been evaluated for study area intersections. The results of this analysis are summarized in Table 3-1, along with the existing intersection geometrics and traffic control devices at each analysis location. The supporting HCM delay and ICU calculation worksheets are provided as Appendix "E".

For Existing (2016) conditions, the following study area intersection currently operates at unacceptable level of service (LOS "E" or worse) during the peak hours, with existing geometry:

ID	Intersection Location	Jurisdiction
8	I-605 NB Off-Ramp (NS) / Live Oak Av. (EW)	Caltrans

3.6.2 EXISTING FREEWAY MAINLINE ANALYSIS

The Existing (2016) freeway mainline analysis results are presented on Table 3-2. The freeway mainline analysis calculation worksheets for Existing (2016) conditions are included in Appendix "F". As shown on Table 3-2, the following freeway segments were found to operate at an unacceptable LOS (i.e., LOS "E" or worse) during the peak hours with the existing 4-lanes in each direction:

ID	Freeway Mainline Segments
8	I-210 Westbound, Immediately East of Irwindale Avenue Westbound Off-Ramp
10	I-210 Westbound, Immediately West of Irwindale Avenue Westbound On-Ramp
11	I-210 Eastbound, Immediately West of Irwindale Avenue Eastbound Off-Ramp

3.6.3 FREEWAY RAMP ANALYSIS

The Existing (2016) freeway ramp analysis results are presented on Table 3-3. The ramp analysis calculation worksheets for Existing (2016) conditions are included in Appendix "F". As shown on Table 3-3, the I-210 Westbound Off-Ramp at Irwindale Avenue is found to operate at an unacceptable LOS (i.e., LOS "E" or worse) during the peak hours with the existing single lane on / off ramps.

3.6.4 EXISTING INTERSECTION QUEUING ANALYSIS

Based on the Synchro plus SimTraffic 8 simulation summarized in Table 3-4, the vehicular queues appear to clear in a reasonable and timely fashion throughout the network under Existing (2016) traffic conditions. Appendix "F" includes the queuing analysis worksheets.

TABLE 3-1

EXISTING CONDITIONS
INTERSECTIONS ANALYSIS SUMMARY

#	INTERSECTION	TRAFFIC CONTROL[3]	INTERSECTION APPROACH LANES[1]												HCM[2]				ICU[4]			
			NORTH-BOUND			SOUTH-BOUND			EAST-BOUND			WEST-BOUND			DELAY (SECS.)		LEVEL OF SERVICE		(V/C)		LEVEL OF SERVICE	
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM	AM	PM	AM	PM
1	Live Oak Av. (West) (NS) / Arrow Hwy. (EW)	TS	2	0	1>>	0	0	0	0	2	2>>	2	2	0	18.1	21.4	B	C	0.88	0.67	D	B
2	Avenida Barbosa St. (NS) / Arrow Hwy. (EW)	TS	0	0	0	2	0	1	1	2	0	0	2	1	15.0	14.3	B	B	0.81	0.55	D	A
3	I-605 SB Off-Ramp (NS) / Arrow Hwy. (EW)	TS	0	0	0	1	0	1>>	0	3	0	0	2	0	17.4	8.0	B	A	0.82	0.45	D	A
4	I-605 NB On-Ramp/Live Oak Ln. (NS) / Arrow Hwy. (EW)	CSS	0	0	1	0	0	0	0	2	d	0	2	1>>	10.6	15.1	B	C	NA	NA	NA	NA
5	Arrow Hwy. (NS) / Rivergrade Rd. (EW)	TS	1	2	0	0	2	1	2	0	1	0	0	0	7.9	5.4	A	A	0.70	0.39	B	A
6	Stewart Av. (NS) / Rivergrade Rd. (EW)	TS	1	1	0	0	1	0	1	2	0	1	2	0	32.3	24.2	C	C	0.15	0.39	A	A
7	I-605 SB On-Ramp (NS) / Live Oak Av. (EW)	TS	0	0	0	0	0	0	0	2	1>>	1	2	0	5.0	12.1	A	B	0.58	0.81	A	D
8	I-605 NB Off-Ramp (NS) / Live Oak Av. (EW)	CSS	0	0	1	0	0	1	0	2	0	0	2	0	>80	>80	F	F	NA	NA	NA	NA
9	Graham Access Rd. (NS) / Live Oak Av. (EW)	TS	0	1	0	0	0	0	0	2	d	1	2	0	14.9	2.3	B	A	0.57	0.64	A	B
10	Live Oak Ln. (NS) / Live Oak Av. (EW)	CSS	0	0	0	0	1	0	1	2	0	0	2	d	13.2	12.7	B	B	NA	NA	NA	NA
11	Rivergrade Rd. (NS) / Live Oak Av. (EW)	TS	1	1	1>	1	2	1	1	2	1	1	2	1	19.1	31.7	B	C	0.61	0.88	B	D
12	Stewart Av. (NS) / Live Oak Av. (EW)	TS	0	1	0	1	1	1	1	2	1	1	2	d	11.2	4.1	B	A	0.76	0.78	C	C
13	Baldwin Park Bl. - Dwy. 3 (NS) / Live Oak Av. (EW)	TS	2	0	1	0	0	0	0	2	d	1	2	0	11.6	20.8	B	C	0.58	0.68	A	B
14	Arrow Hwy. (NS) / Live Oak Av. (EW)	TS	0	0	0	2	0	1	1	2	0	0	2	2>>	12.1	23.7	B	C	0.56	0.74	A	C
15	Maine Av. (NS) / Arrow Hwy. (EW)	TS	2	0	1	0	0	0	0	2	d	1	3	0	17.9	10.3	B	B	0.82	0.75	D	C
16	Arrow Hwy. (NS) / Dwy. 1 (EW)	-	DOES NOT EXIST												NA	NA	NA	NA	NA	NA	NA	NA
17	Arrow Hwy. (NS) / Dwy. 2 (EW)	-	DOES NOT EXIST												NA	NA	NA	NA	NA	NA	NA	NA

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width (23') for right turning vehicles to travel outside the through lanes.
L = Left; T = Through; R = Right; 1>> = Free Right Turn Lane; d = Defacto Right Turn Lane

[2] Delay and level of service (LOS) calculated using the following analysis software: Synchro 8. Per the 2010 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for worst individual movement (or movements sharing a single lane) are shown. "NA" value is shown for unsignalized ICU values.

[3] TS = Traffic Signal; CSS = Cross Street Stop.

[4] The Synchro v/c output results are discussed in the City of Irwindale Policy Guidelines for Traffic Impact Reports under Section B (page insert) and indicated that the v/c ratio results in the Synchro are based on ICU and should be presented in addition to delay information.

* BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

TABLE 3-2

EXISTING CONDITIONS
BASIC FREEWAY SEGMENT ANALYSIS

FREEWAY	DIRECTION	MAINLINE SEGMENT LOCATION	Lanes[1]	VOLUME		DENSITY[2]		LOS[3]	
				AM	PM	AM	PM	AM	PM
I-605 FREEWAY	NB	Immediately South of Live Oak Avenue	4	4,188	4,183	16.8	16.8	B	B
		Between Live Oak Avenue and Eastbound Arrow Highway Loop On Ramp	4	2,931	2,930	11.8	11.8	B	B
		Between Eastbound Arrow Highway Loop On Ramp and Westbound Arrow Highway On Ramp	4	3,228	3,037	13.0	12.2	B	B
		Immediately North of Westbound Arrow Highway On Ramp	4	3,536	3,359	14.2	13.5	B	B
	SB	Immediately North of Arrow Highway Off Ramps	4	4,721	4,530	19.0	18.2	C	C
		Between Arrow Highway Off Ramps and Live Oak On Ramps	4	3,825	3,946	15.4	15.9	B	B
		Immediately South of Live Oak On Ramps	4	5,121	5,497	20.3	22.5	C	C
I-210 FREEWAY	WB	Immediately East of Irwindale Avenue Westbound Off Ramp	4	7,524	6,982	35.1	27.7	E	D
		Between Irwindale Avenue Westbound Loop On Ramp and Irwindale Avenue Westbound Off Ramp	4	6,925	6,459	30.7	27.7	D	D
		Immediately West of Irwindale Avenue Westbound On Ramp	4	7,926	7,190	38.6	32.5	E	D
	EB	Immediately West of Irwindale Avenue Eastbound Off Ramp	4	7,752	6,445	37.0	27.6	E	D
		Between Irwindale Avenue Eastbound Off Ramp and Irwindale Avenue Eastbound OnRamp	4	6,213	5,623	26.3	23.1	D	C
		Immediately East of Irwindale Avenue Eastbound Off Ramp	4	6,698	6,522	31.1	28.1	D	D

[1] Number of lanes are in the specified direction and is based on existing conditions.

[2] Density is measured by passenger cars per mile per lane (pc/mi/ln).

[3] Level of service determined using HCS2010: Basic Freeway Segments software, Version 6.65

TABLE 3-3

EXISTING CONDITIONS
FREEWAY RAMP JUNCTION MERGE/DIVERGE ANALYSIS

FREEWAY	DIRECTION	RAMP LOCATION	Lanes on Freeway[1]	VOLUME		DENSITY [2]		LOS [3]	
				AM	PM	AM	PM	AM	PM
I-605 FREEWAY	NB	NB Off Ramp at Live Oak Avenue	4	1,257	1,253	26.2	26.2	C	C
		NB Loop On Ramp for Eastbound Arrow Highway	4	297	107	13.7	12.2	B	B
		NB Direct On Ramp for Westbound Arrow Highway	4	308	322	14.7	12.4	B	B
	SB	SB Off Ramp at Arrow Highway	4	896	584	26.8	24.4	C	C
		SB On Ramp at Live Oak Avenue	4	1,296	1,551	24.9	27.3	C	C
I-210 FREEWAY	WB	WB Off Ramp at Irwindale Avenue	4	599	523	35.5	32.9	E	D
		WB Loop On Ramp at Irwindale Avenue	4	540	448	31.0	28.6	D	D
		WB Direct On Ramp at Irwindale Avenue	4	461	283	31.0	27.6	D	C
	EB	EB Off Ramp at Irwindale Avenue	4	1,539	822	22.7	17.5	C	B
		EB On Ramp at Irwindale Avenue	4	485	899	25.5	26.7	C	C

[1] Existing conditions for all study area merge/diverge locations consists of single lane on/off ramps.

[2] Density is measured by passenger cars per mile per lane (pc/mi/ln).

[3] Level of service determined using HCS2010 : Ramps and Ramp Junction software, Version 6.65

TABLE 3-4

EXISTING CONDITIONS

INTERSECTION QUEUING ANALYSIS SUMMARY[1]

ID	Intersection	Turning Movement Lane	Existing Storage Length[2] (feet)	Minimum Recommended Storage Length[3] (feet)	95th Percentile Queue Length Per Lane (feet)		Acceptable?[4]	
					AM	PM	AM	PM
3	I-605 SB Off-Ramp (NS) / Arrow Hwy. (EW)	SBL	980	-	307	261	YES	YES
		EBT	1,300	-	107	192	YES	YES
		WBT	1,160	-	294	128	YES	YES
7	I-605 SB On-Ramp (NS) / Live Oak Av. (EW)	EBT	1,200	-	126	334	YES	YES
		WBL	350	-	204	228	YES	YES
		WBT	545	-	98	117	YES	YES
8	I-605 NB Off-Ramp (NS) / Live Oak Av. (EW)	NBR	835	-	514	506	YES	YES
		SBR Loop	1,560	-	480	399	YES	YES
		EBT	545	-	0	0	YES	YES
		WBT	545	-	0	0	YES	YES

[1] Queue length calculated using Synchro 8 with SimTraffic.

[2] Existing pocket length storage (for turning movements) or link distance (for through movements).

[3] Minimum recommended storage length needed to accommodate the anticipated 95th percentile queues.

[4] Storage Length is acceptable if the required queuing length is less than or equal to the storage length provided.

3.6.5 EXISTING TRAFFIC SIGNAL WARRANT ANALYSIS

Traffic signal warrant analysis has been performed for key unsignalized intersections that may require improvements to address anticipated future deficiencies. The only intersection meeting this criteria is the I-605 Freeway Northbound Off-Ramp (NS) at Live Oak Avenue (EW). The traffic signal warrant analysis worksheet is included in Appendix "G" of the report. Other unsignalized intersections are right turn only locations and are anticipated to operate at acceptable levels of service for the foreseeable future.

3.7 PLANNED TRANSPORTATION IMPROVEMENTS AND RELATIONSHIPS TO GENERAL PLAN

The City of Irwindale roadway classifications and typical roadway cross-sections are illustrated on Exhibit 3-G and Exhibit 3-H, respectively. These exhibits show the nature of the roadways in the vicinity of the proposed site and how access will be provided to the surrounding areas. As shown on Exhibits 3-G and 3-H, Live Oak Avenue is classified as a Major Highway with 100 feet right-of-way (ROW) and typical curb to curb pavement width of 84 feet. As also shown on Exhibits 3-G, Arrow Highway is a Secondary Highway immediately east of the I-605 Freeway and north of Live Oak Avenue with a right-of-way (ROW) of 80 feet and typical curb to curb pavement width of 64 feet. Arrow Highway is classified as a Major Highway immediately east of the project site (as Live Oak Avenue transitions to Arrow Highway) to the City of Irwindale easterly boundaries. Per the City of Irwindale General Plan Roadway Cross-Sections (Exhibit 3-H), Major Highways are 4 to 6 lane divided facilities.

The County of Los Angeles roadway classifications and typical roadway cross-sections are illustrated on Exhibit 3-I and 3-J, respectively. As shown on Exhibit 3-I, Live Oak Avenue and Arrow Highway are both classified as Major Highways in the study area. Similar to the City of Irwindale's roadway classification standards, the County of Los Angeles identifies a Major Highway with 100 feet right-of-way (ROW) and a typical curb to curb pavement width of 84 feet.

The City of Baldwin Park roadway classifications and typical roadway cross-sections are illustrated on Exhibit 3-K and 3-L, respectively. As shown on Exhibit 3-K, Baldwin Park Boulevard is classified as an Arterial in the study area. Per the City of Baldwin Park General Plan Roadway Cross-Section (Exhibit 3-L), an Arterial level roadway has 100' ROW with 40' for travel lanes in each direction.

Exhibit 3-M illustrates the City of Irwindale truck routes. As shown on Exhibit 3-M, Arrow Highway and Live Oak Avenue are designated truck routes, as is Irwindale Avenue. Local truck access is also allowed on Graham Access Road, Rivergrade Road, and the other local streets serving industrial uses in the study area.

EXHIBIT 3-G

CITY OF IRWINDALE
GENERAL PLAN CIRCULATION ELEMENT

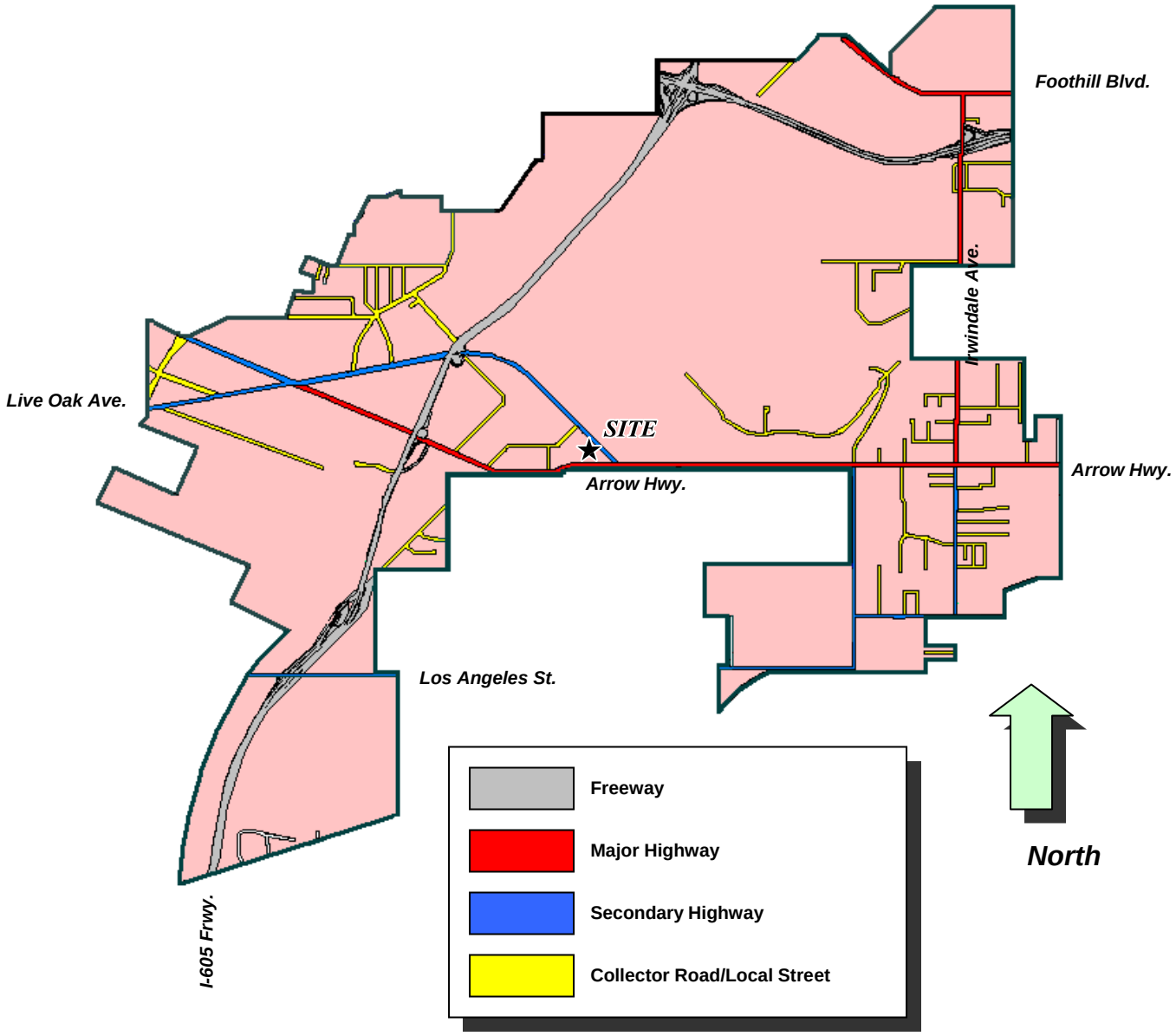


EXHIBIT 3-H

CITY OF IRWINDALE
GENERAL PLAN ROADWAY CROSS-SECTIONS

Table 4-10 Roadway Classification Standards				
	Major Highways	**Secondary Highways**	**Collector Roads**	**Local Streets**
Travel Lanes	4-6 (divided)	2-4 lanes (Undivided)	2 lanes	2 lanes
Estimated Daily Capacity	40,400 to 53,000 vehicles/day	10,000 to 30,000 vehicles/day	Up to 10,000 vehicles/day	2,000 or less vehicles/day
ROW width	100 ft.	80 ft.	60 ft.	60 ft.
Pavement Width	84 ft.	64 ft.	40 ft.	40 ft.
Note: Estimated daily capacity for LOS expressed in vehicles/day				

EXHIBIT 3-I

COUNTY OF LOS ANGELES
GENERAL PLAN CIRCULATION ELEMENT



EXHIBIT 3-J

COUNTY OF LOS ANGELES
GENERAL PLAN ROADWAY CROSS-SECTIONS

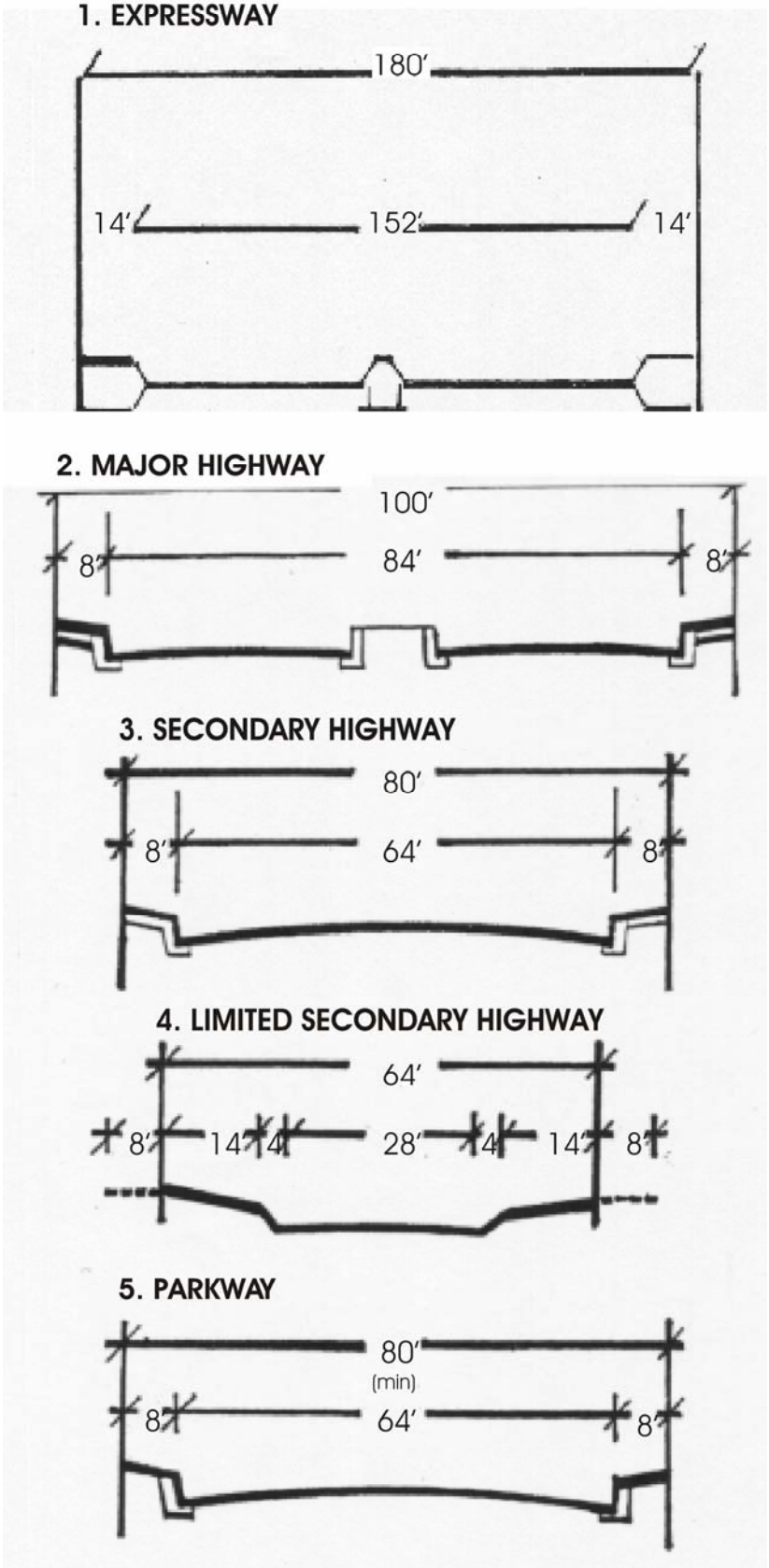
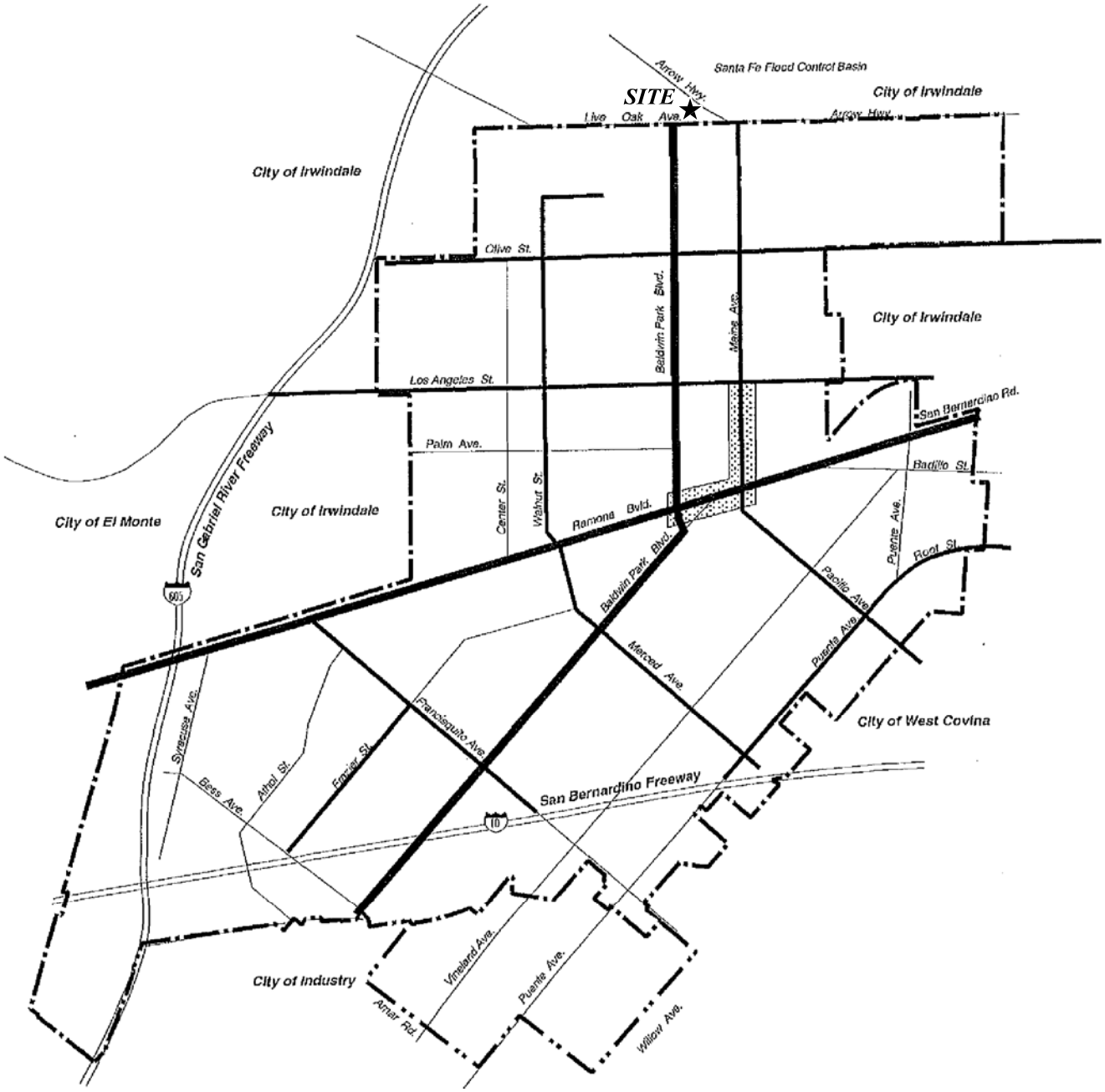


EXHIBIT 3-K

CITY OF BALDWIN PARK
GENERAL PLAN CIRCULATION ELEMENT



LEGEND:

- City Boundary
- Sphere of Influence
- Arterial
- Collector/Industrial
- Special Study Area

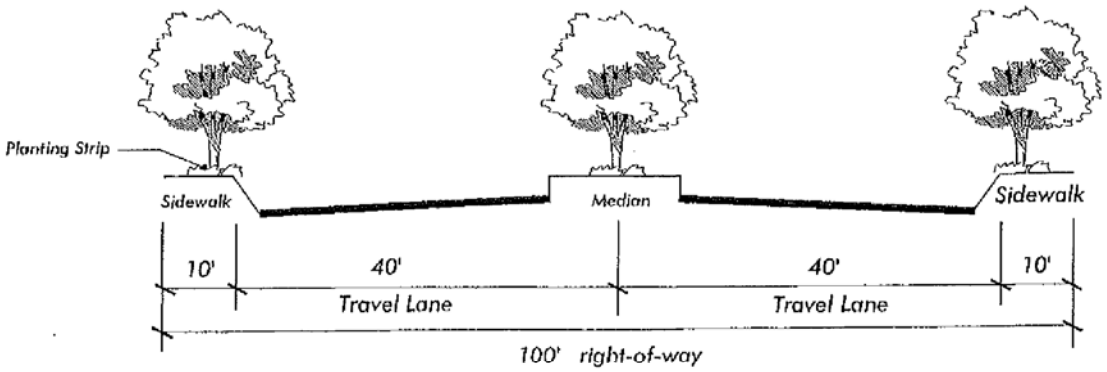
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SOURCE: BALDWIN PARK 2020 GENERAL PLAN

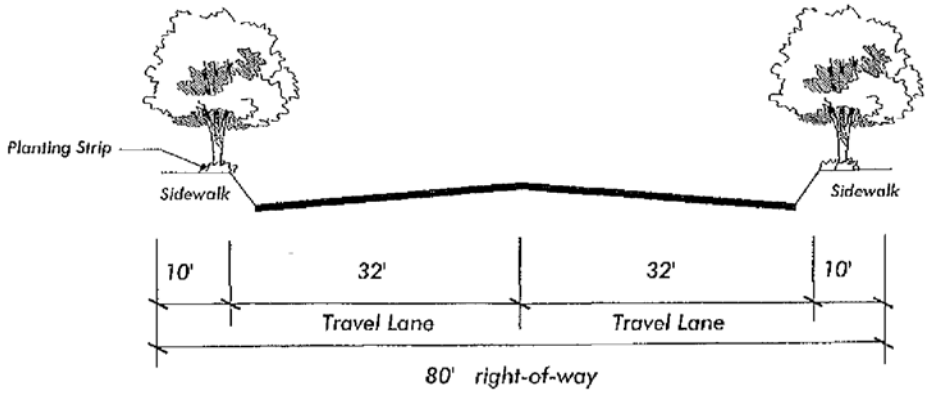
EXHIBIT 3-L

CITY OF BALDWIN PARK
GENERAL PLAN ROADWAY CROSS-SECTIONS

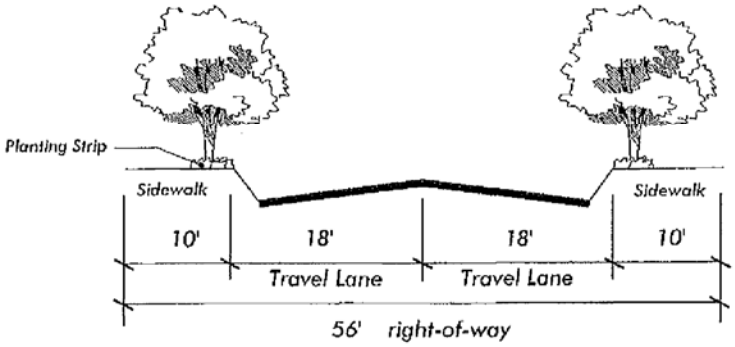
Arterial Street: 100' right-of-way



Collector / Industrial: 80'right-of-way



Residential: 60' right-of-way

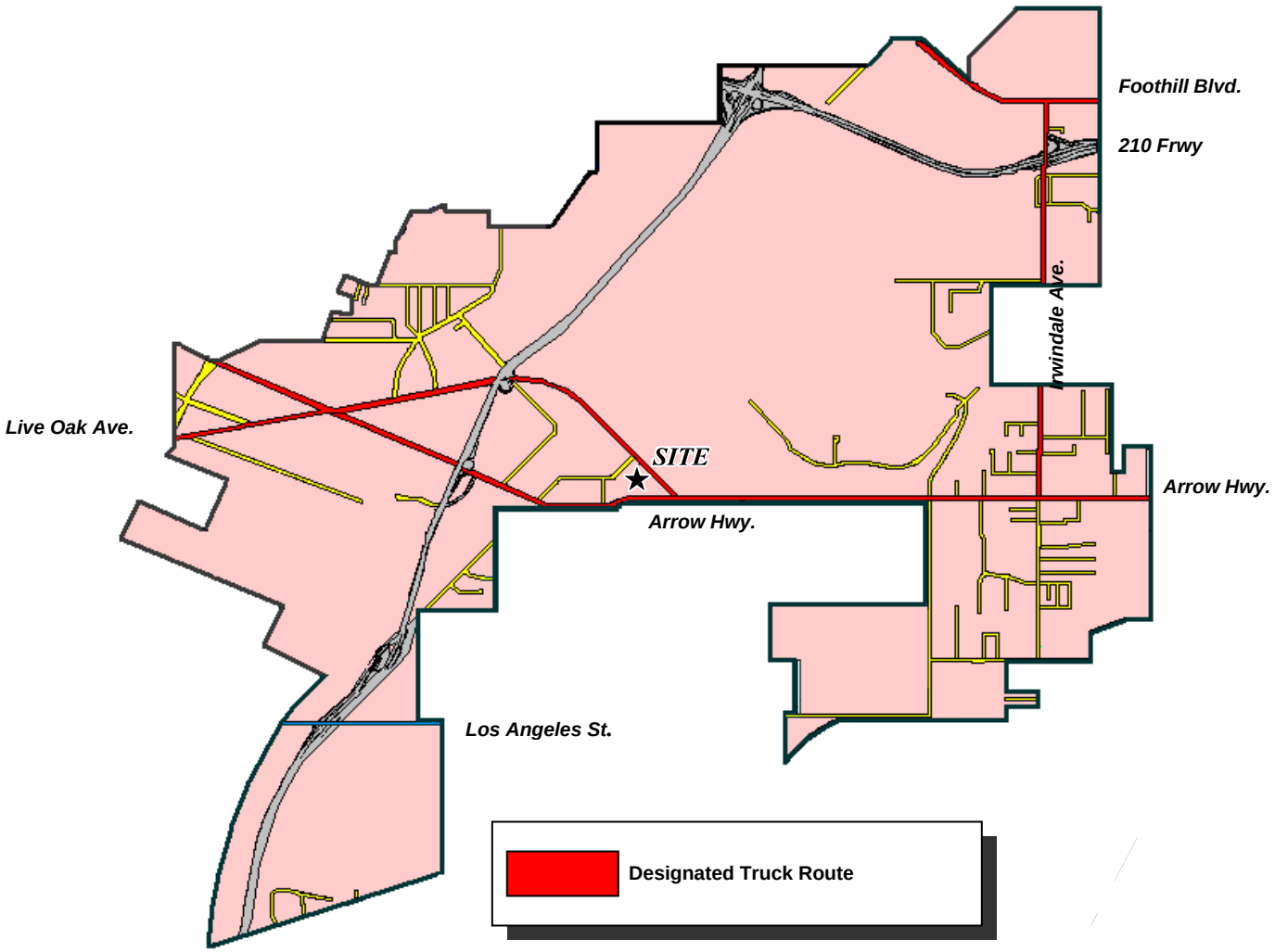


Note: Right-of-way widths represent maximums. City reserves the right to develop narrower streets consistent with land use goals for pedestrian districts and within residential subdivisions.

SOURCE: BALDWIN PARK 2020 GENERAL PLAN

EXHIBIT 3-M

CITY OF IRWINDALE TRUCK ROUTES



N

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4.0 FUTURE TRAFFIC VOLUMES

This chapter of the report discusses the volume calculation methodology utilized to forecast the future traffic volumes for the following scenarios:

- Existing (2016) Conditions
- Existing Plus Project Conditions
- Interim Year (2017) Conditions Without and With Project Conditions
- Long Range (2035) Conditions Without and With the Project

4.1 EXISTING PLUS PROJECT

For Existing Plus Project conditions, project only traffic volumes were added to the Existing (2016) traffic volumes (presented in Chapter 3 of this report). Exhibit 4-A, 4-B, and 4-C present the Existing Plus Project ADT, AM peak hour, and PM peak hour traffic volumes respectively. As shown on these exhibits, Arrow Highway east of Maine Avenue is projected to carry approximately 46,300 vpd. Arrow Highway adjacent to the project site is projected to carry between 18,300 and 24,800 VPD. The highest daily traffic volume in the study area is 53,100 VPD on Live Oak Avenue, west of Arrow Highway (North).

It should be noted that intersection of Arrow Highway and Project Driveway 1 is anticipated to warrant a traffic signal under Existing plus Project conditions. As mentioned previously, the traffic signal warrant analysis worksheet is included in Appendix "G" of the report.

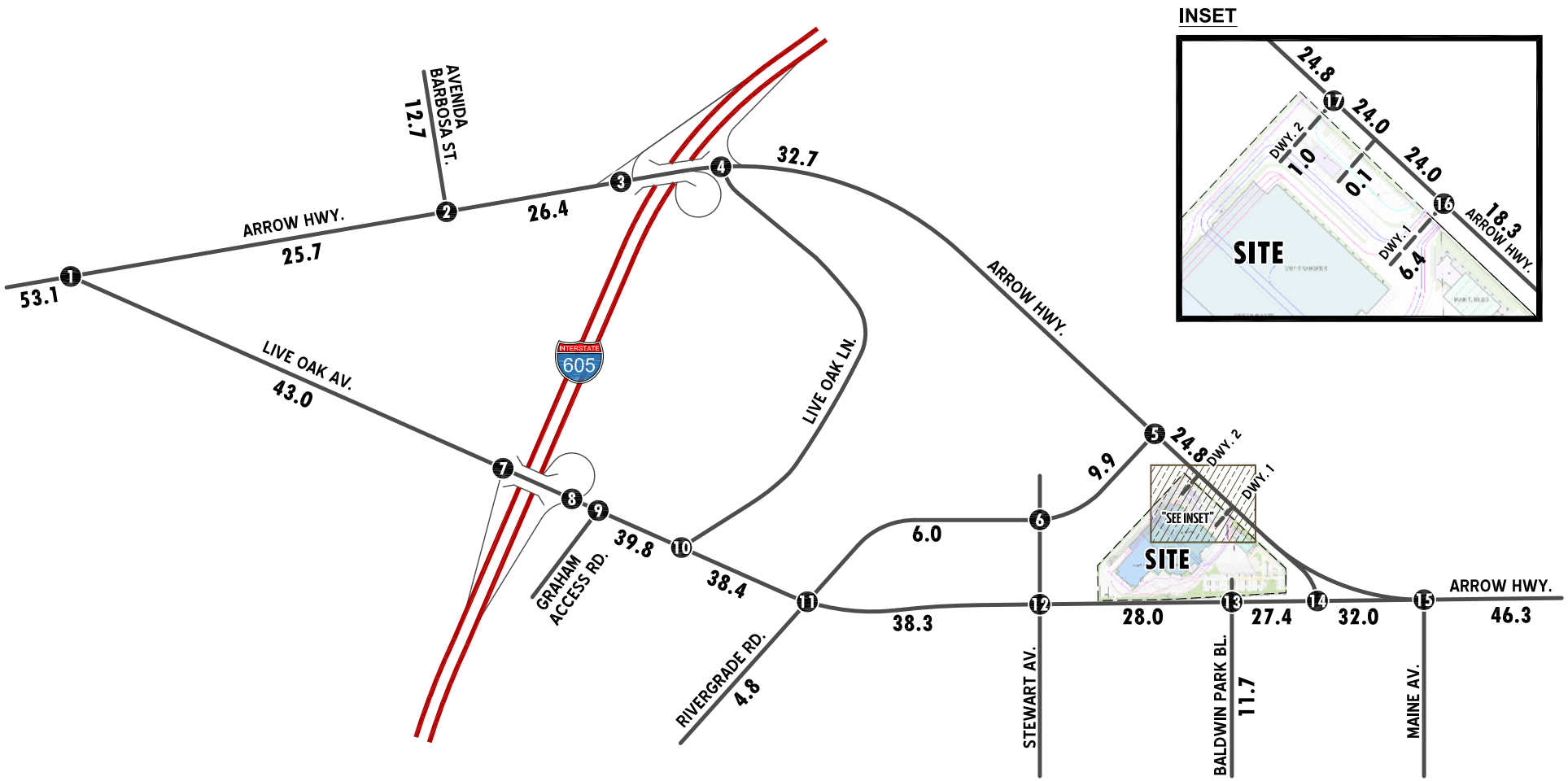
4.2 INTERIM YEAR (2017) WITHOUT PROJECT

For Interim Year (2017) Without Project conditions, an ambient growth rate of 2.0% per year (consistent with City of Irwindale traffic study guidelines) was applied to the Existing (2016) in addition to the cumulative project / other development data. Other cumulative development has been obtained from the City of Irwindale and other nearby cities and grouped into eight (8) traffic analysis zone (TAZ) locations. The TAZ locations of the anticipated cumulative development projects are shown on Exhibit 4-D. The following projects have been identified by the various jurisdictions:

CITY OF IRWINDALE PROJECTS	
● Kare Youth League/Santa Fe Dam Sports Park	● Azusa Canyon Business Park
● City Infill Housing Project	● Arrow Business Park
● Mod 4-06 to CUP 67-6 - 16025 Cypress St.	● Irwindale Regional Shopping Center[1]
● LA/Alderson Business Park	● Olive Pit Mining and Reclamation Project
CITY OF AZUSA PROJECTS	
● Waste Management MRF & Transfer Station	● Mixed Use Project - NEC of Dalton & Foothill
● Downtown Azusa Project 1 - 619/621 N. Azusa	● Block 36 - SEC of Azusa Av. & Foothill Bl.
● Residential Project - 710 S. Azusa Av.	● Target Project - 809 N Azusa Av.
● Gladstone Mixed Use - 890 Gladstone St.	● Azusa Rock Revised CUP & Reclamation Plan
● Residential - 523-531 Arrow Hwy.	● Residential - 9th St. & Alameda Av.
● Monrovia Nursery - Specific Plan	● Commercial - 880 S Azusa Av.
● Azusa Pacific University - Specific Plan	

EXHIBIT 4-A

EXISTING PLUS PROJECT AVERAGE DAILY TRAFFIC (ADT)



LEGEND:

10.0 = VEHICLES PER DAY (1000'S)

N

EXHIBIT 4-B

EXISTING WITH PROJECT AM PEAK HOUR INTERSECTION VOLUMES

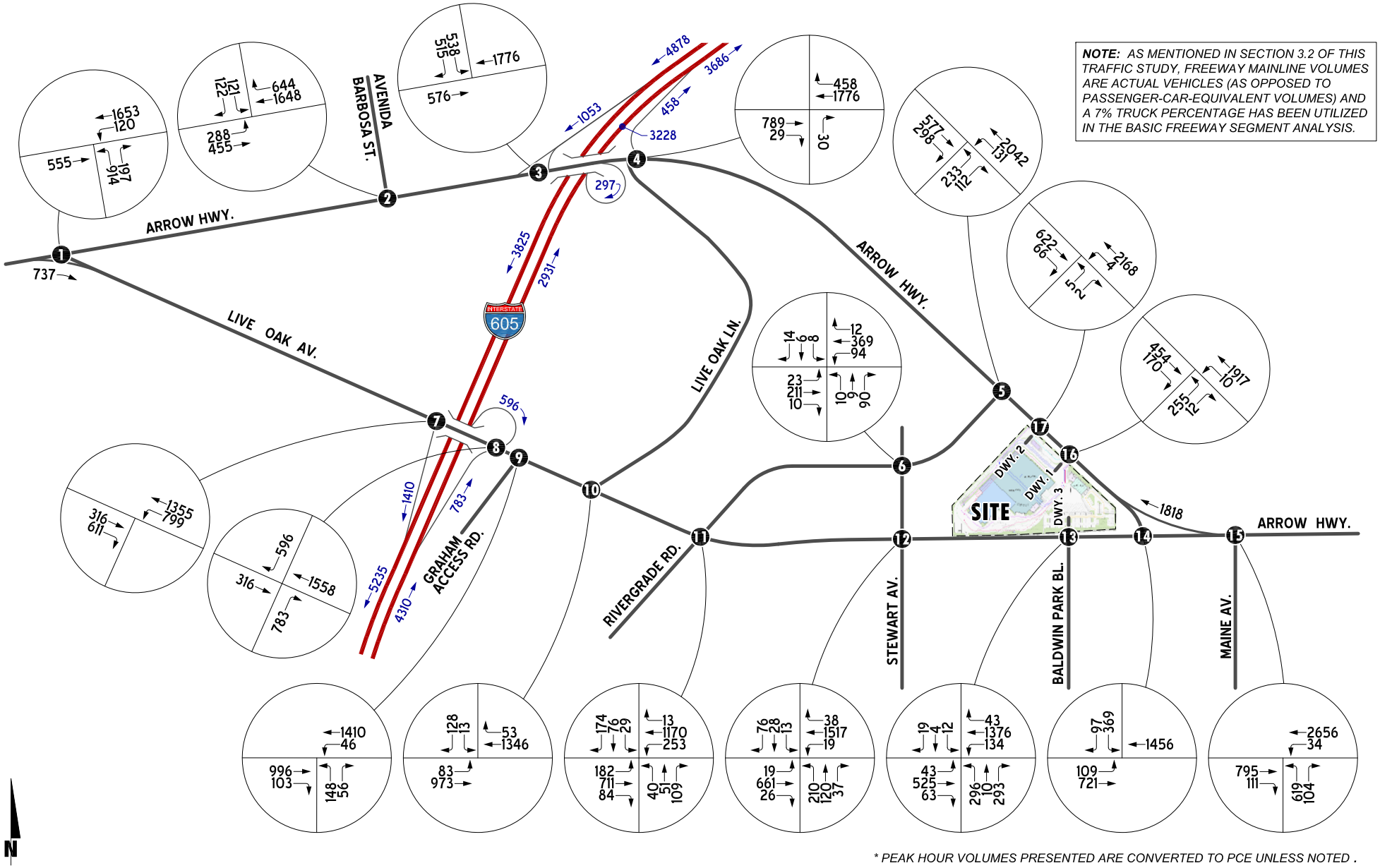
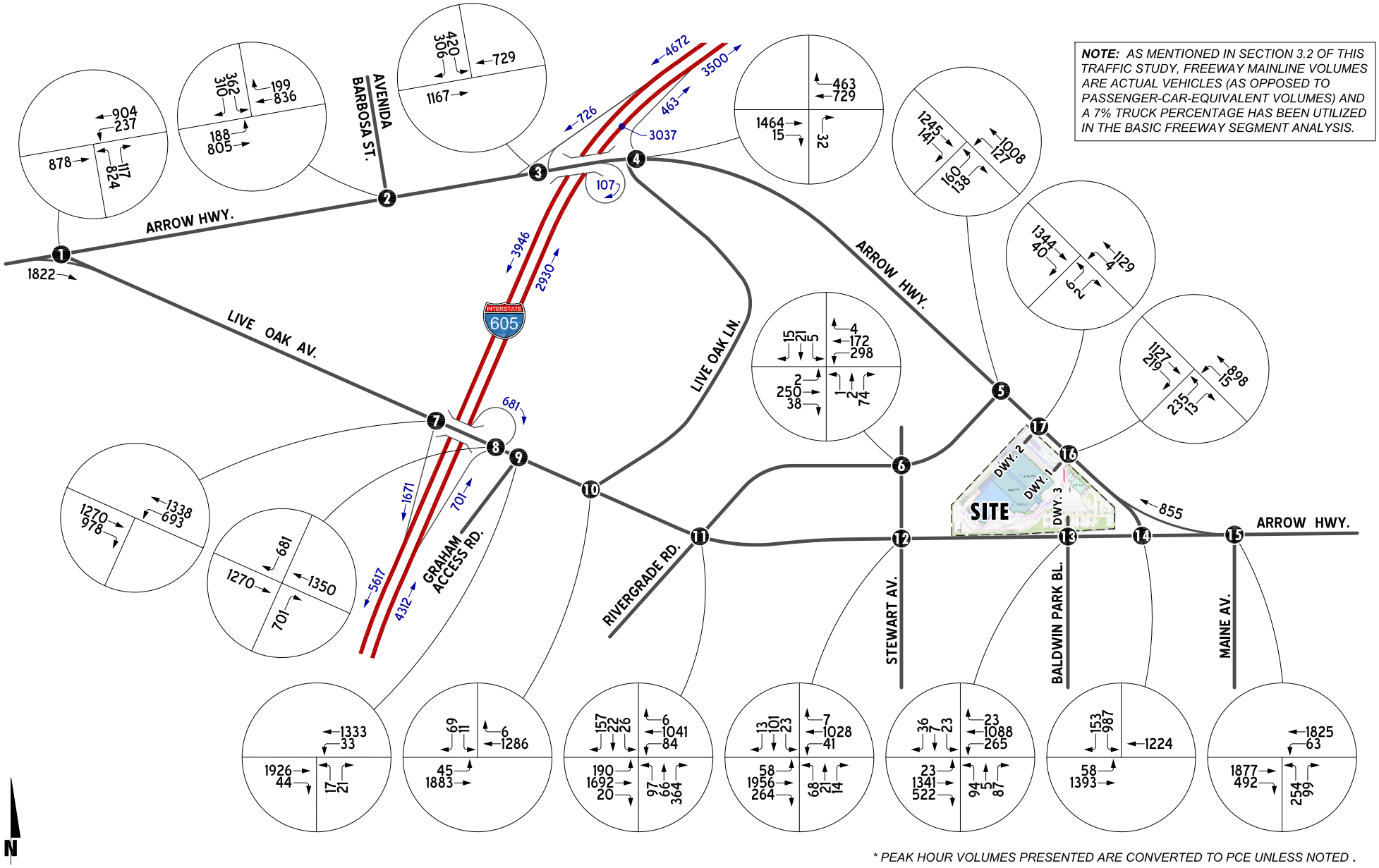


EXHIBIT 4-C

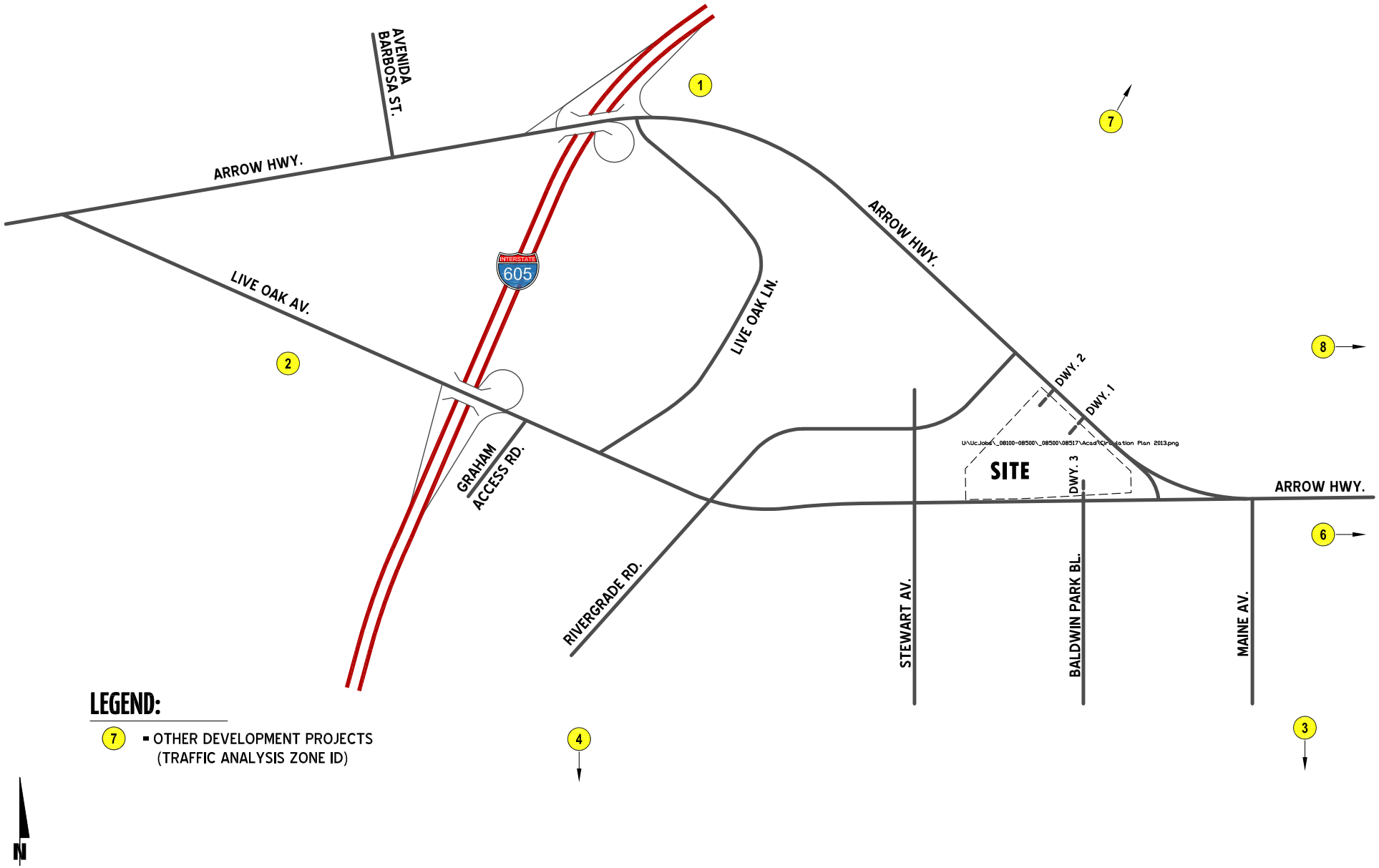
EXISTING WITH PROJECT PM PEAK HOUR INTERSECTION VOLUMES



* PEAK HOUR VOLUMES PRESENTED ARE CONVERTED TO PCE UNLESS NOTED .

EXHIBIT 4-D

OTHER DEVELOPMENTS LOCATION MAP



CITY OF COVINA PROJECTS	
• Taco Bell - 301 N Citrus Av. • Jack in the Box/CVS - 545 S. Citrus Av. • Lowes - 1348 N Azusa Av. • Condominiums - 615 N 3rd St. • Residential - 436 E Cypress St. • Condominiums Citrus Av. & Italia St.	• Mixed Use Condominiums - Citrus Av. & Italia St. • Rose Gardens at Santa Teresita • Andres Duarte Terrace Phase II • Huntington Counts Phase II and III • Attalla Ranch (Las Lomas Est.)
CITY OF BALDWIN PARK PROJECTS	
• Residential - 13655 Foster Av. • Residential - 3346 Vineland Av. • Residential - 13732 Monterey Av. • Residential - 13734 Monterey Av. • Residential - 13736 Monterey Av. • Residential - 12723 Bess Av. • Residential - 12725 Bess Av. • Residential - 12727 Bess Av. • Residential - 3138 Magum St. • Residential - 4859 Marion Av. • Residential - 4861 Marion Av. • Residential - 4503 Park Av.	• Residential - 4143 Hornbrook Av. • Residential - 4455 Park Av. • Residential - 4819 Lante St. • Residential - 4820-28 Fortin Av. • Commercial - 4341 Maine Av. • Restaurant - 14622 Dalewood St. • Warehouse - 5029 Bleecker St. • Office - 4814 Maine Av. • Office - 3323 Baldwin Park Bl. • Office - 13329 Garvey Av. • Fueling Facility (Truck Fleet) -13940 Live Oak Av. • Inst.Facility w/Parking Structure -14403 Pacific Av.
CITY OF WEST COVINA PROJECTS	
• Westfield Expansion - 112 Plaza Dr. • McIntyre Square Exp. -2612-1698 E.Garvey • West Covina Senior Villas - 1838 E Workman Av.	• Mixed-Use - 1045-1052 West Grondahl St. • Medical Imaging Center - 1700 West Covina Pkwy. • Office - SEC of West Covina Pwy. & W Garvey S.
CITY OF GLENDORA PROJECTS	
• Diamond Ridge • Cataract • JPI Sevilla Project • Glendora Station • Tract 46680 • Tract 46916 • Tract 45858	• Glendora Marketplace • Wildwood Canyon • Monrovia Nursery • Grand-Foothill • Grand Av. Retail Center • WalMart Expansion • Route 66 Specific Plan

[1]Note: The mitigation measures for the Irwindale Regional Shopping Center have been included in the cumulative analysis.

Table 4-1 summarizes the anticipated cumulative development projects' trip generation per TAZ.

Trip distribution assumptions have been obtained from the cumulative project traffic study reports where available, or developed independently for those projects where published information was not available. The trip distributions for each of the cumulative development projects are included as Appendix "H" of this report.

Based on the identified trip generation and distributions for other developments on arterial highways throughout the study area, other cumulative development project daily traffic volumes and AM and PM peak hour intersection turning movement volumes have been developed and are shown on Exhibit 4-E, Exhibit 4-F, and Exhibit 4-G, respectively.

Exhibit 4-H, Exhibit 4-I, and Exhibit 4-J present the Interim Year (2017) Without Project ADT, AM peak hour, and PM peak hour traffic volumes, respectively. As shown on these exhibits, Live Oak Avenue, west of Arrow Highway (North) is projected to carry approximately 56,600 vpd.

TABLE 4-1
OTHER DEVELOPMENT TRIP GENERATION SUMMARY[1]

ID	Project Name/Location	Land Use	Quantity [c]	AM Peak Hour			PM Peak Hour			Daily	Jurisdiction
				In	Out	Total	In	Out	Total		
1	Kare Youth League/ Santa Fe Dam Sports Park NEC of Arrow Highway & I-605	Youth sports park	17.0 AC	15	13	28	40	40	80	710	City of Irwindale
	TAZ 1 Subtotal			15	13	28	40	40	80	710	
2	Irwindale Shopping Center[2]	Shopping Center	700 TSF	342	127	469	341	438	779	17,788	City of Irwindale
	TAZ 2 Subtotal			342	127	469	341	438	779	17,788	
3	Olive Pit Mining & Reclamation Project[3]	Aggregate Trucks (PCE)	- -	60	57	117	39	39	78	786	City of Irwindale
		Employees/Vistors	- -	12	4	16	6	8	14	80	
	TAZ 3 Subtotal			72	61	133	45	47	92	866	--
4	Commercial (Jack in the Box & CVS Pharmacy) 545 S Citrus Avenue	Fast-Food Rest. w/ Drive- Thru	1.188 TSF	30	29	59	21	19	40	589	City of Covina
		Pharmacy / Drug Store	10.658 TSF	20	14	34	45	45	90	960	
		Subtotal		50	43	93	66	64	130	1,549	
	Residential - 13655 Foster Av.	Medium-Density Residential	10 DU	1	4	5	4	2	6	67	City of Baldwin Park
	Residential 3346 Vineland Av.	Medium-Density Residential	15 DU	2	6	8	6	3	9	100	
	Residential - 13732 Monterey Av., Residential - 13734 Monterey Av., Residential - 13736 Monterey Av., Residential - 12723 Bess Av., Residential - 12725 Bess Av., Residential - 12727 Bess Av., Residential - 3138 Magum St., Residential - 4503 Park Av., Residential - 4143 Hornbrook Av., Residential - 4455 Park Av.	Single Family Residential	10 DU	0	10	10	10	0	10	100	
	Commercial - 4341 Maine Av.	Commercial	4.5 TSF	3	2	5	10	7	17	193	
	Restaurant - 14622 Dalewood St.	Rest.	15.295 TSF	92	85	177	101	70	171	1,945	
	Office - 3323 Baldwin Park Bl.	Office	4.95 TSF	7	1	8	1	6	7	54	
	13329 Garvey Av.	Office / Warehouse	13.62 TSF	19	3	22	3	17	20	150	
	Institutional Facility with Parking Structure -14403 Pacific Av.	Institution	176.2 TSF	870	166	1,036	66	147	213	12,145	
	Westfield Expansion 112 Plaza Dr.	Shopping Center	32 TSF	20	12	32	73	47	120	1,418	City of West Covina
	McIntyre Square Expansion 2612-1698 E Garvey Av.	Rest.	4.8 TSF	29	27	56	32	22	54	610	
		Retail	4.8 TSF	3	2	5	11	7	18	206	
		Subtotal		32	29	61	43	29	72	816	
	West Covina Senior Villas 1838 E Workman Av.	High-Density Residential	65 DU	7	27	34	22	12	34	432	
	Medical / Professional Office SEC of W. Covina Pwy. & W Garvey S.	Office	55 TSF	75	10	85	14	68	82	606	City of West Covina
	TAZ 4 Subtotal			1,178	398	1,576	419	472	891	19,575	--

TABLE 4-1
OTHER DEVELOPMENT TRIP GENERATION SUMMARY[1]

ID	Project Name/Location	Land Use	Quantity [c]	AM Peak Hour			PM Peak Hour			Daily	Jurisdiction
				In	Out	Total	In	Out	Total		
5	Mod 4-06 to CUP 67-6 16025 Cypress Street	Our Lady of Guadalupe Church	12.227 TSF	4	3	7	3	4	7	111	City of Irwindale
	Residential - 4859 Marion Av., Residential - 4861 Marion Av., Residential - 4819 Lante St., Residential - 4820-28 Fortin Av.	Single Family Residential	4 DU	0	4	4	4	0	4	40	City of Baldwin Park
	Office - 4814 Maine Av.	Office	6.3 TSF	9	1	10	0	2	2	69	
	TAZ 5 Subtotal			13	8	21	7	6	13	220	--
6	Warehouse - 5029 Bleecker St.	Warehouse	8.748 TSF	2	1	3	1	2	3	31	Baldwin Park
	TAZ 6 Subtotal			2	1	3	1	2	3	31	--
7	City Infill Housing Project	Single Family Units	7 DU	0	0	0	0	0	0	0	City of Irwindale
	Downtown Azusa Project 1 619/621 North Azusa Av.	Rest.	3.9 TSF	23	22	45	26	18	44	496	City of Azusa
		Office	1.035 TSF	1	0	1	0	1	2	11	
		Subtotal		24	22	46	26	19	46	507	
	Monrovia Nursery Specific Plan	Single Family Units	752 DU	141	423	564	478	281	759	7,197	
		Residential Condominiums	823 DU	62	301	363	287	141	428	4,782	
		Elementary School	245 STU	61	50	111	18	19	37	316	
		Middle School	175 STU	52	43	95	14	14	28	284	
		Park	6 AC	0	0	0	0	0	0	9	
		Transit Commercial	50 TSF	31	20	51	114	73	187	2,147	
		Subtotal		347	837	1,184	911	528	1,439	14,735	
	Azusa Pacific University Specific Plan	East Campus	874 STU	147	37	184	55	128	183	2,080	
		West Campus	2,550 STU	428	107	535	161	375	536	6,069	
		Subtotal		575	144	719	216	503	719	8,149	
	Mixed Use Project NEC of Dalton Avenue & Foothill Bl.	Residential	73 DU	7	30	37	29	16	45	485	
		Retail	8 TSF	5	3	8	18	12	30	344	
		Subtotal		12	33	45	47	28	75	829	
	Block 36 SEC of Azusa Av. & Foothill Bl.	Residential Apartments	110 DU	11	45	56	44	24	68	732	
		Office	29.2 TSF	40	5	45	7	36	43	321	
		Retail/Commercial	30 TSF	18	12	30	68	44	112	1,288	
		Rest.	7.5 TSF	45	41	86	49	34	83	954	
		Subtotal		114	103	217	168	138	306	3,295	
	Target Project - 809 N Azusa Av.	Retail	150 TSF	92	59	151	341	218	559	6,441	

TABLE 4-1
OTHER DEVELOPMENT TRIP GENERATION SUMMARY[1]

ID	Project Name/Location	Land Use	Quantity [c]	AM Peak Hour			PM Peak Hour			Daily	Jurisdiction
				In	Out	Total	In	Out	Total		
	Azusa Rock Revised CUP & Reclamation Plan [a] Northerly terminus of Encanto Pkwy. & Fish Cyn. Rd.	Mineral Resource - Mining	Revised CUP & Reclamation Plan; Modify operations & reclamation approach	56	56	112	19	19	38	0	City of Azusa
	Residential - 9th St. & Alameda Av.	Residential Townhomes	14 DU	1	5	6	5	2	7	81	
	Rose Gardens at Santa Teresita 800 Buena Vista Street	Nursing Facility, Assisted Living	229.292 TSF	21	11	32	22	28	50	610	
	Andres Duarte Terrace Phase II 1700 Huntington Drive	High-Density Residential	43 DU	4	18	22	17	9	26	286	
	Huntington Counts Phase III 2400 Huntington Drive	Medium-Density Residential	16 DU	2	7	9	6	3	9	106	City of Duarte
	Huntington Courts Phase II 2400 Huntington Drive	Residential (Single/Multi-Family)	14 DU	1	6	7	6	3	9	93	
	Attalla Ranch (Las Lomas Est.) NEC of Sunnydale & Woodbluff	Single Family Residential	15 DU	3	8	11	10	6	16	144	
	Diamond Ridge	Quality Rest.	6.5 TSF	0	0	0	33	16	49	585	
		Office	30 TSF	41	6	47	8	37	45	330	
		Subtotal		41	6	47	41	53	94	915	
	Cataract	Condominiums	17 DU	1	6	7	6	3	9	99	
	JPI Sevilla Project	Condomiums	161 DU	12	59	71	56	28	84	935	
		Office	12 TSF	16	2	18	3	15	18	132	
		Subtotal		28	61	89	59	43	102	1,067	
7	Glendora Station	Residential	87 DU	9	35	44	35	19	54	579	
		Office	5 TSF	7	1	8	1	6	7	55	
		Subtotal		16	36	52	36	25	61	634	
	Tract 46680	Single Family Residential	14 DU	3	8	11	9	5	14	134	City of Glendora
	Tract 46916	Single Family Residential	16 DU	3	9	12	10	6	16	153	
	Tract 45858	Single Family Residential	13 DU	2	7	9	8	5	13	124	
	Glendora Marketplace	Retail	50 TSF	31	20	51	114	73	187	2,147	
		Quality Rest.	4.2 TSF	N/A	N/A	0	21	10	31	378	
		Subtotal		31	20	51	135	83	218	2,525	
	Wildwood Canyon	Single Family Residential	54 DU	10	30	40	34	20	54	517	
	Monrovia Nursery	Single Family Residential	54 DU	10	30	40	34	20	54	517	
	Grand-Foothill	Townhouses	18 DU	6	30	36	29	14	43	105	
		Condominiums	64 DU	2	12	14	12	6	18	372	
		Subtotal		8	42	50	41	20	61	477	
	Grand Avenue Retail Center	General Commercial	14 TSF	9	5	14	32	20	52	601	
		Quality Rest.	4.2 TSF	N/A	N/A	N/A	21	10	31	378	
		Subtotal		9	5	14	53	30	83	979	
	WalMart Expansion	Retail/Grocery	20 TSF	14	7	21	50	50	100	1,145	City of Glendora
	Route 66 Specific Plan	Office	750 TSF	1,023	140	1,163	190	928	1,118	8,258	
		Commercial	750 TSF	458	293	751	1,706	1,091	2,797	32,205	
		Apartments	225 DU	23	92	115	91	49	140	1,496	
		Subtotal		1,504	525	2,029	1,987	2,068	4,055	41,959	
	TAZ 7 Subtotal			2,932	2,101	5,033	4,297	3,935	8,233	86,521	--

TABLE 4-1
OTHER DEVELOPMENT TRIP GENERATION SUMMARY[1]

ID	Project Name/Location	Land Use	Quantity [c]	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	Daily	Jurisdiction
8	Waste Management Materials Recycling Facility & Transfer Station 501 West Gladstone	125,000 sf processing building with offices to receive, process and transfer up to 3,800 tons per day of solid waste.	3800 Tons/ Day	224	148	372	400	320	720	4,294	City of Azusa
	Residential - 710 S. Azusa Av.	Residential Condominiums	81 DU	6	30	36	28	14	42	471	
	Gladstone Mixed Use 890 Gladstone Street	Residential Apartments	9 DU	1	4	5	4	2	6	60	
		Retail/Commercial	4.443 TSF	3	2	5	10	6	16	191	
		Subtotal		4	6	10	14	8	22	251	
	Residential - 523-531 Arrow Hwy.	Residential Condominiums	28 DU	2	10	12	10	5	15	163	
	Commercial - 880 S Azusa Av.	Commercial	47 TSF	29	18	47	107	68	175	2,018	
	Lowes - 1348 N Azusa Av.	Home Improvement Store	111.348 TSF	80	60	140	127	137	264	3,318	City of Covina
	Taco Bell - 301 N Citrus Av.	Fast-Food Rest. w/ Drive-Thru	3.445 TSF	87	83	170	60	55	115	1,709	
	Condominiums - 615 N 3rd St.	Condominiums	30 DU	2	11	13	10	5	15	174	
	Residential - 436 E Cypress St.	Single Family Residential	1 DU	0	1	1	1	0	1	10	
	Condominiums - Citrus Av. & Italia St.	Condominiums	37 DU	3	14	17	13	6	19	215	
	Mixed Use Condominiums Citrus Avenue & Italia Street	Retail	4.366 TSF	3	2	5	10	6	16	187	
		Residential Condominiums	4 DU	0	1	1	1	1	2	23	
		Subtotal		3	3	6	11	7	18	210	
	Mixed-Use Project 1045-1052 West Grondahl St.	Residential	412 DU	42	168	210	166	89	255	2,740	City of West Covina
		Commercial	20 TSF	12	8	20	46	29	75	859	
		Subtotal		54	176	230	212	118	330	3,599	
	Medical Imaging Center 1700 West Covina Pkwy.	Medical Office	9.3 TSF	13	2	15	2	12	14	102	
	TAZ 8 Subtotal			507	562	1,069	995	755	1,750	16,534	--

[1] Source: Transportation Study for the Athens Materials Recovery Facility and Transfer Station (01/2012). Prepared by Gibson Transportation Consulting Inc.

Trip Generation, 8th Edition, Institute of Transportation Engineers (ITE), 2008.Notes:

[a] Materials processed through conveyor belts, trucks pick up material at Foothill & Irwindale; study intersections not impacted

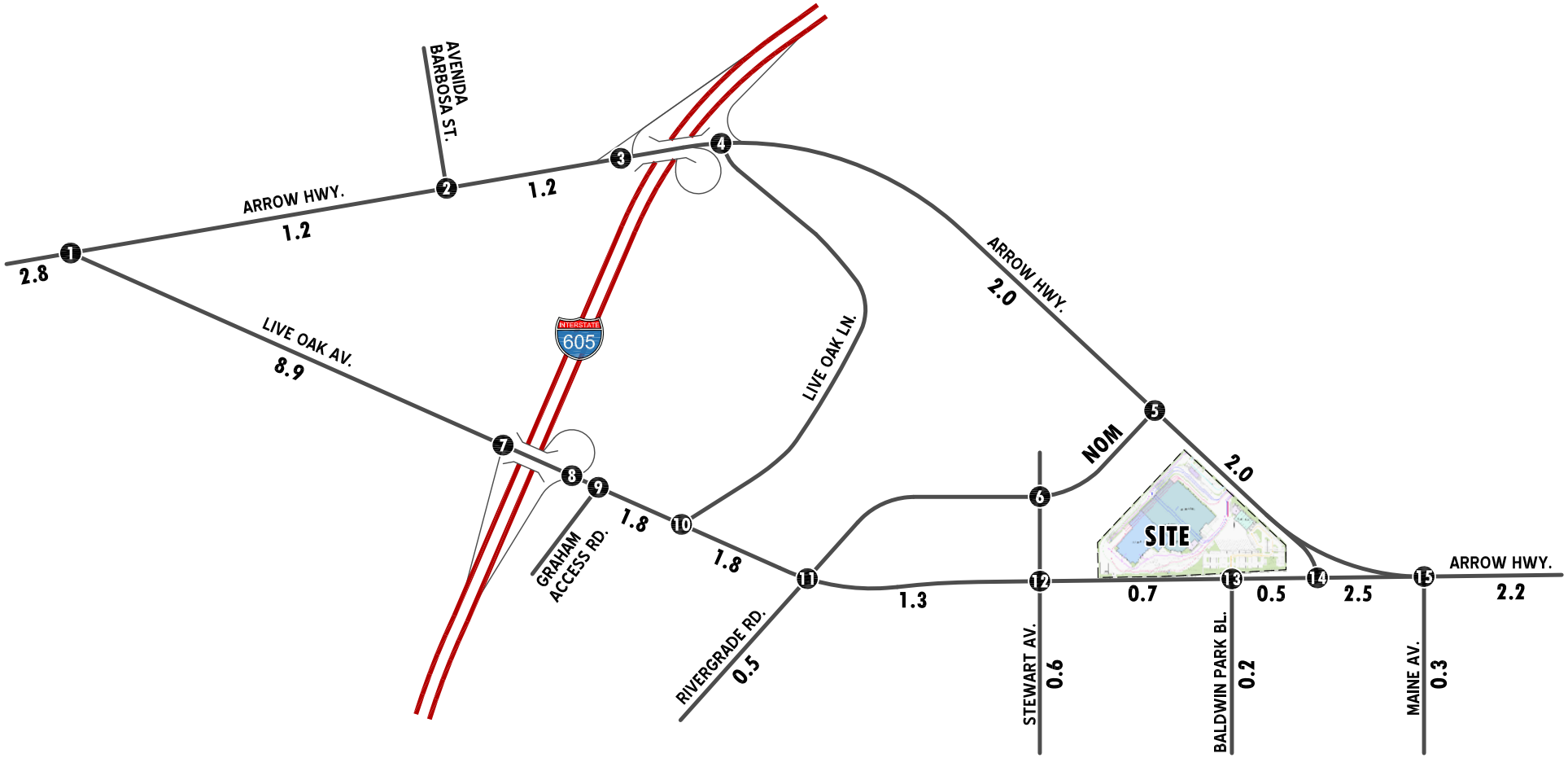
[c] DU:Dwelling Unit; SF: Square Feet

[3] Source: Traffic Impact Analysis for the Irwindale Regional Shopping Center (11/2014). Prepared by LSA Associates, Inc.

[4] Source: Traffic Impact Analysis for the Olive Pit Mining and Reclamation Project (07/2014). Prepared by Urban Crossroads, Inc.

EXHIBIT 4-E

CUMULATIVE AVERAGE DAILY TRAFFIC (ADT)



LEGEND:

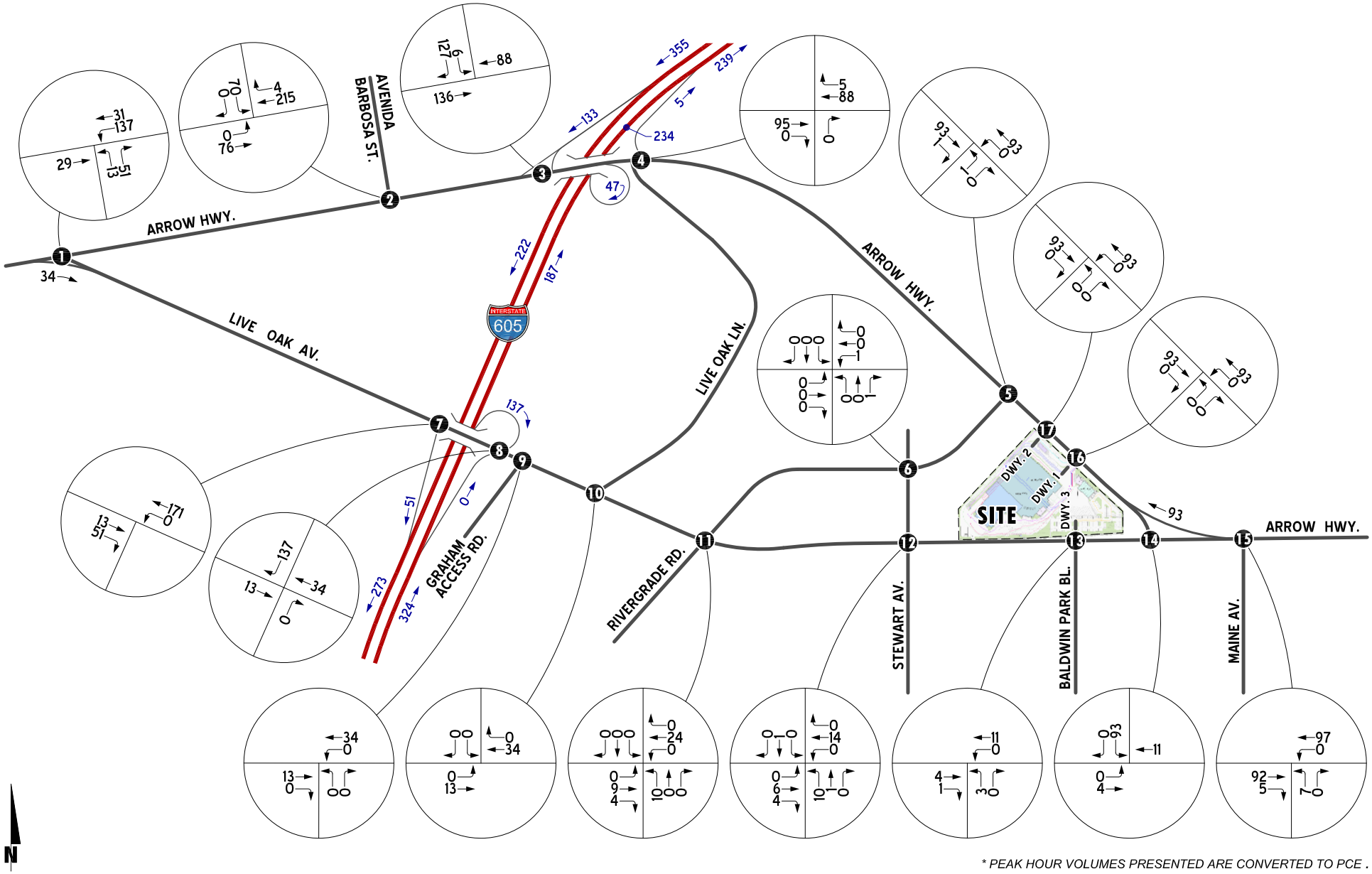
10.0 = VEHICLES PER DAY (1000'S)

NOM = NOMINAL, LESS THAN 50 VEHICLES PER DAY

N

EXHIBIT 4-F

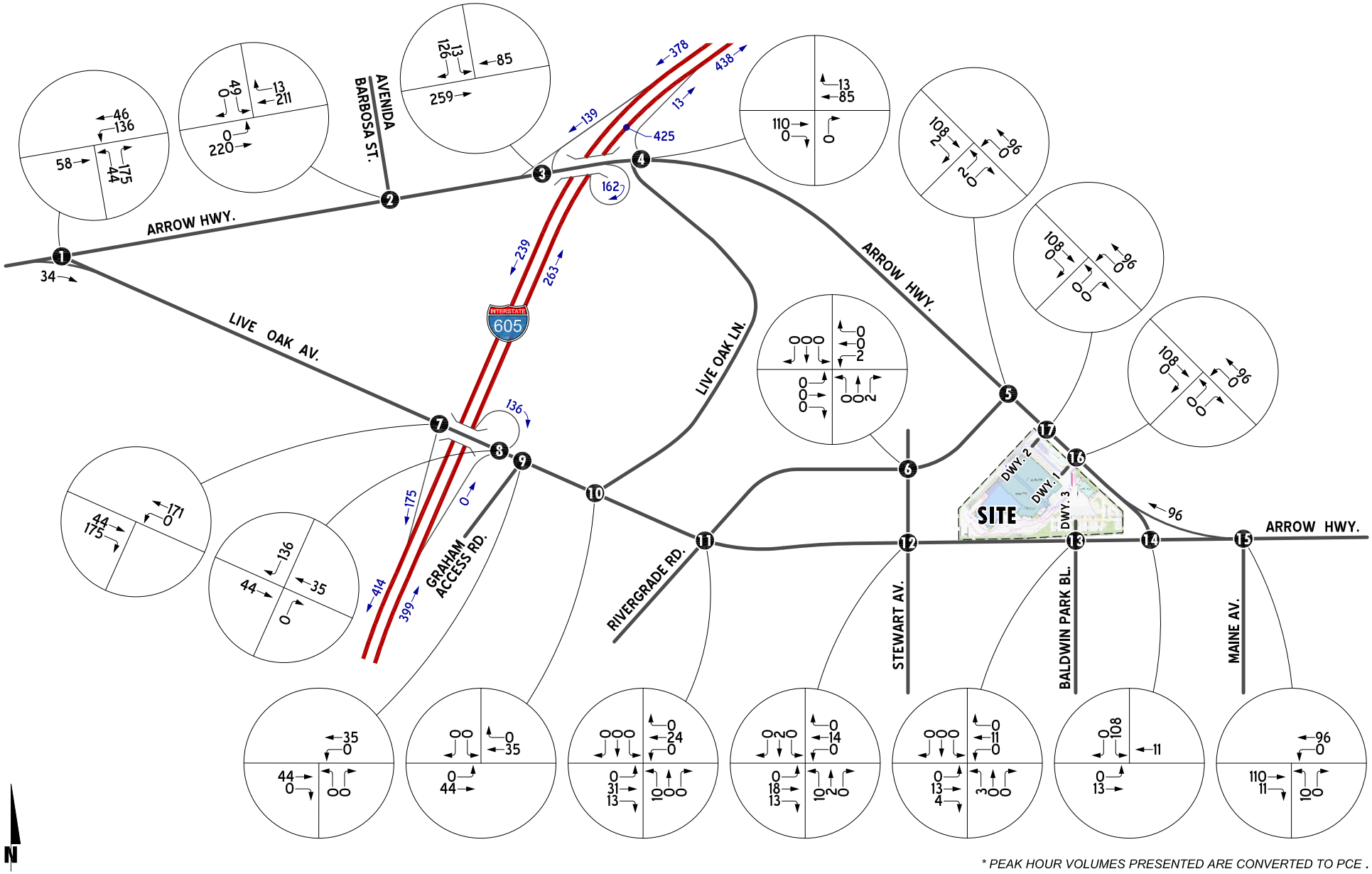
CUMULATIVE AM PEAK HOUR INTERSECTION VOLUMES



* PEAK HOUR VOLUMES PRESENTED ARE CONVERTED TO PCE .

EXHIBIT 4-G

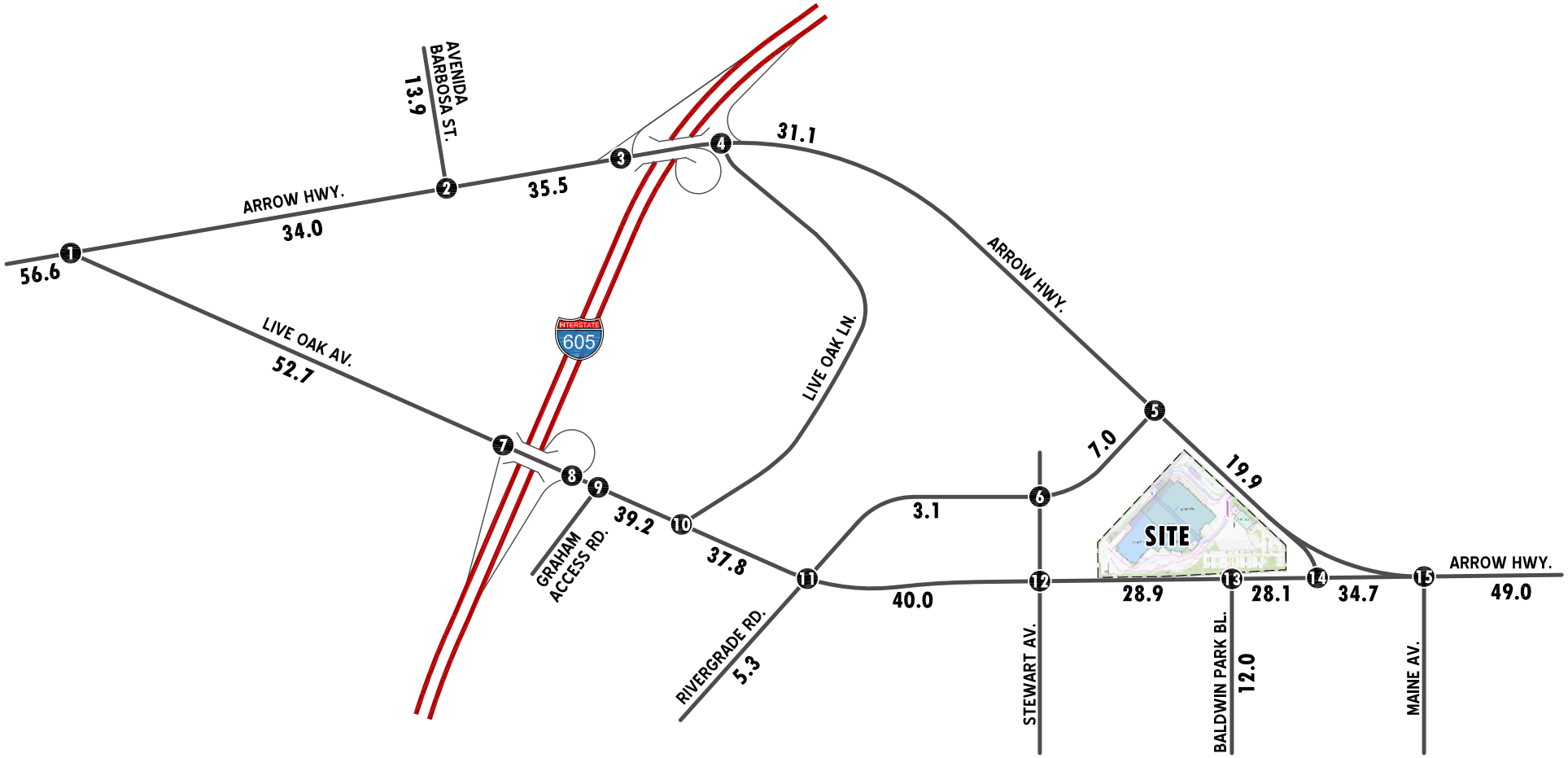
CUMULATIVE PM PEAK HOUR INTERSECTION VOLUMES



* PEAK HOUR VOLUMES PRESENTED ARE CONVERTED TO PCE .

EXHIBIT 4-H

INTERIM YEAR (2017) WITHOUT PROJECT AVERAGE DAILY TRAFFIC (ADT)



LEGEND:

10.0 = VEHICLES PER DAY (1000'S)

EXHIBIT 4-I

INTERIM YEAR (2017) WITHOUT PROJECT AM PEAK HOUR INTERSECTION VOLUMES

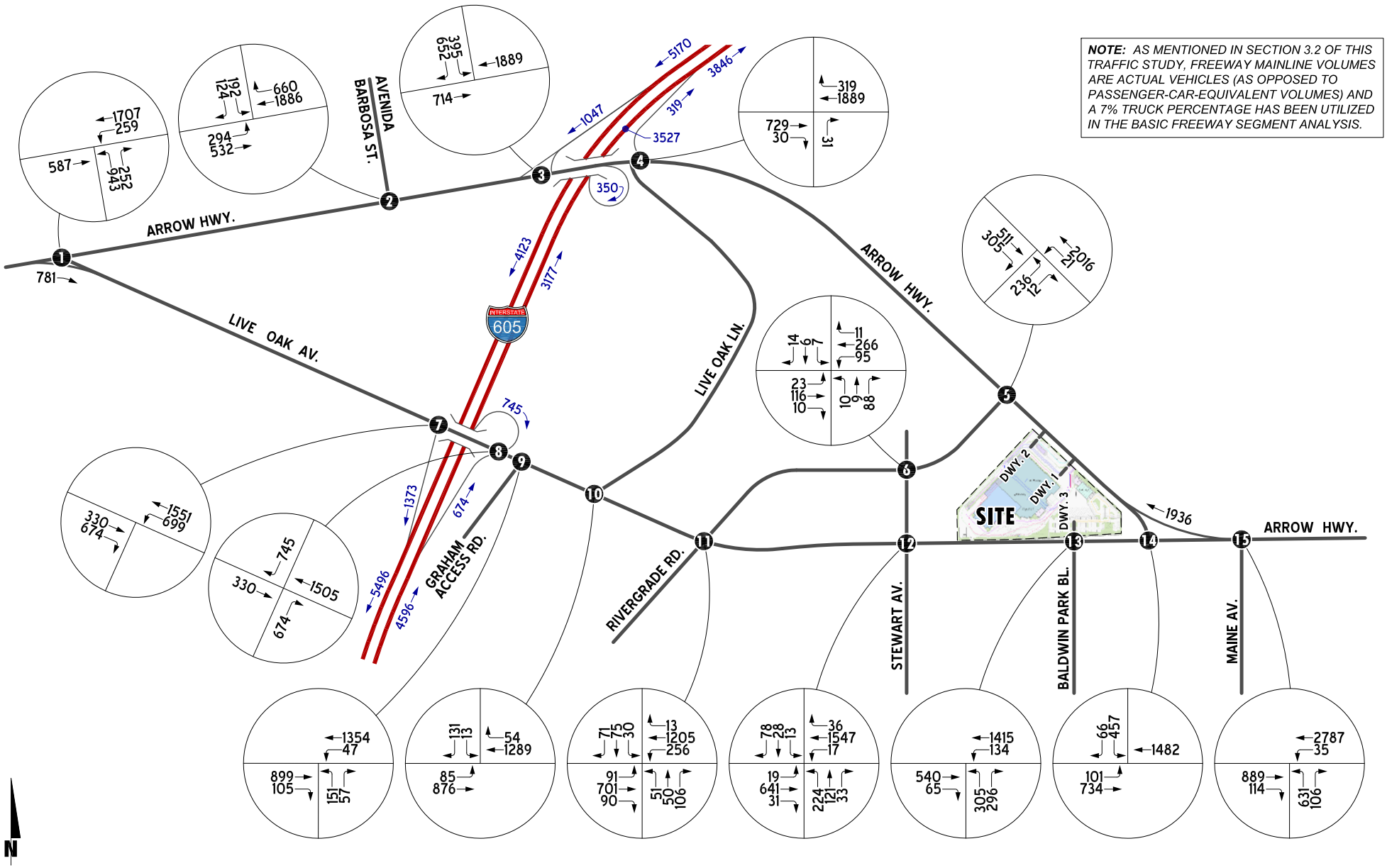
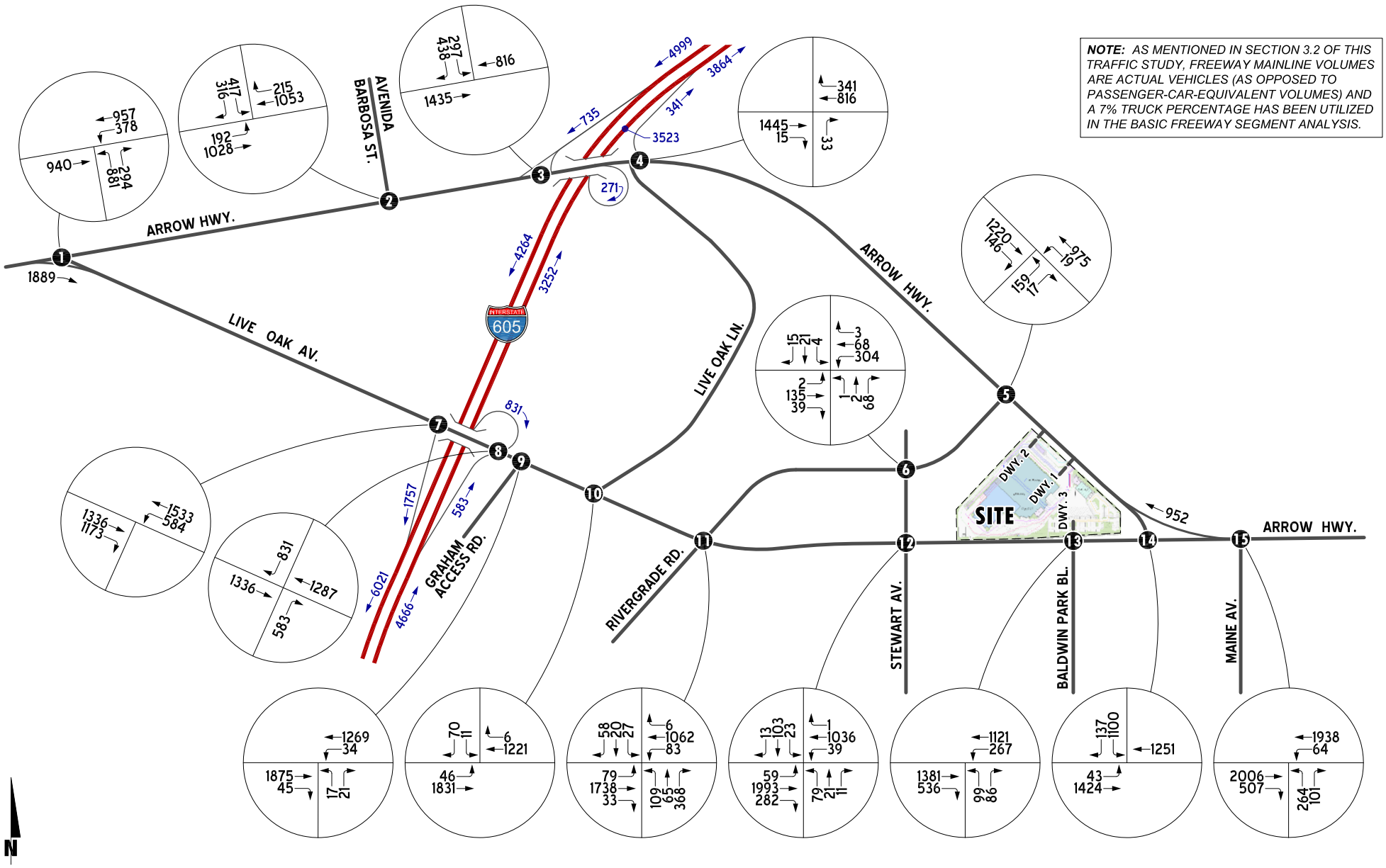


EXHIBIT 4-J

INTERIM YEAR (2017) WITHOUT PROJECT PM PEAK HOUR INTERSECTION VOLUMES



4.3 INTERIM YEAR (2017) WITH PROJECT

For Interim Year (2017) With Project conditions, project only traffic volumes were added to the Interim Year Without Project volumes described above. Exhibit 4-K, Exhibit 4-L, and Exhibit 4-M present the Interim Year (2017) With Project ADT, AM peak hour, and PM peak hour traffic volumes, respectively. As shown on these exhibits, Arrow Highway east of Maine Avenue is projected to carry approximately 56,900 vpd. Arrow Highway adjacent to the project site is projected to carry between 20,600 and 27,100 VPD. The highest daily traffic volume in the study area is 56,900 VPD on Live Oak Avenue, west of Arrow Highway (North).

4.4 LONG RANGE (2035) WITHOUT PROJECT

Per Appendix D in the Los Angeles County 2010 CMP, the background traffic growth estimates for Horizon Year must use the generalized growth factor (at a minimum) shown in Exhibit D-1 of the LA CMP. Based on Exhibit D-1 of the LA CMP, a general traffic volume growth factor of 1.106 is used for cities (including Irwindale) within the Regional Statistical Area (RSA) 26 for Horizon Year 2035. Therefore, Long Range baseline volumes were developed by applying a general growth factor of 1.106 to existing volumes to reflect 2035 conditions, as identified in the Los Angeles County CMP, in addition to the cumulative project / other development data.

Appendix "I" of this report contains the relevant excerpts from the Los Angeles County CMP traffic impact analysis guidelines.

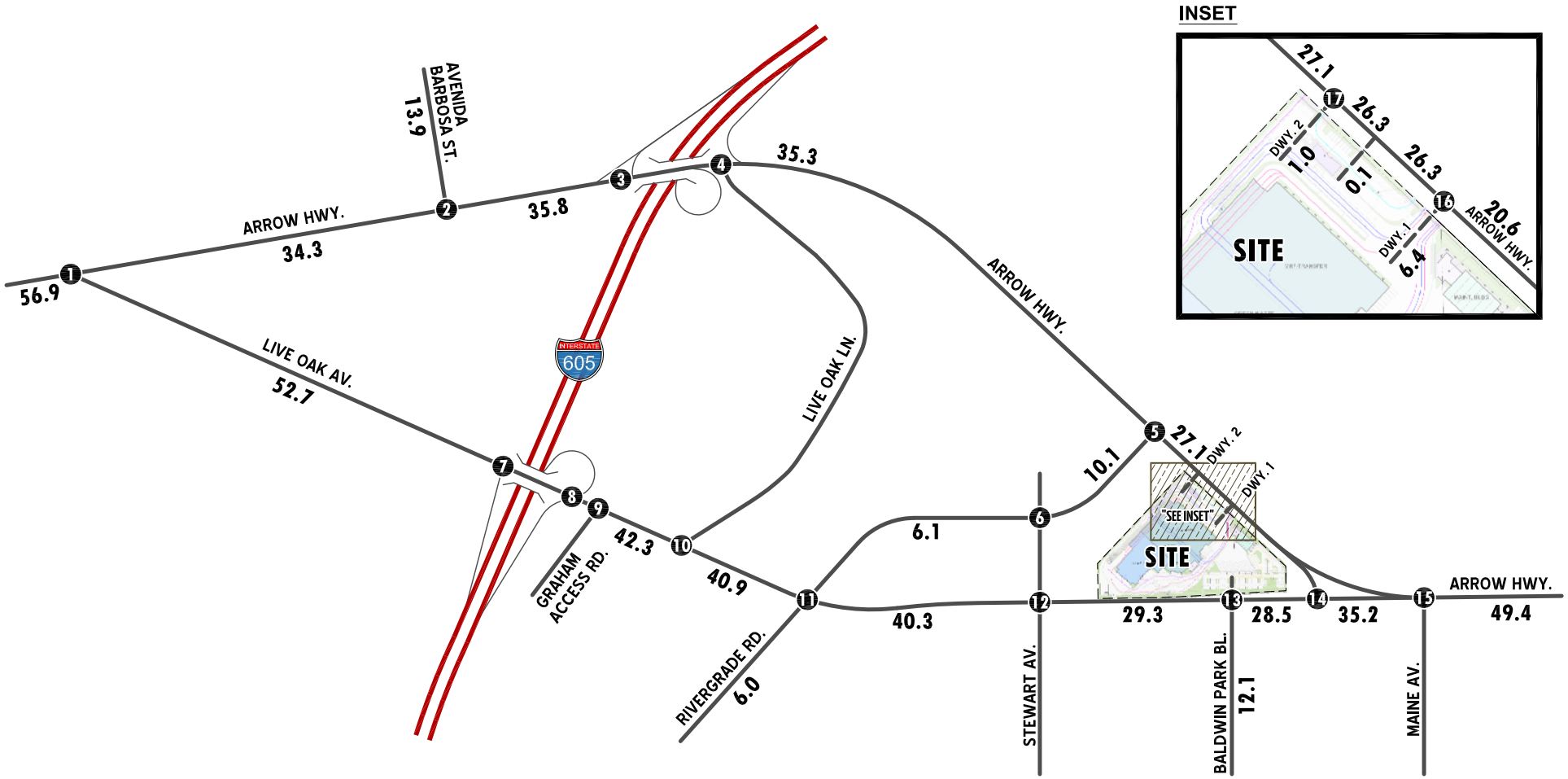
Exhibit 4-N, Exhibit 4-O, and Exhibit 4-P present the Long Range (2035) Without Project ADT, AM peak hour, and PM peak hour traffic volumes, respectively. As shown on these exhibits, Live Oak Avenue, west of Arrow Highway (North) is projected to carry approximately 61,100 vpd.

4.5 LONG RANGE (2035) WITH PROJECT

For Long Range (2035) With Project conditions, "project only" traffic volumes were added to the Long Range (2035) Without Project volumes described above. Exhibit 4-Q, Exhibit 4-R, and 4-S present the Long Range (2035) with Project ADT, AM peak hour, and PM peak hour traffic volumes, respectively. As shown on these exhibits, Arrow Highway east of Maine Avenue is projected to carry approximately 53,400 vpd. Arrow Highway adjacent to the project site is projected to carry between 22,100 and 28,600 VPD. The highest daily traffic volume in the study area is 61,400 VPD on Live Oak Avenue, west of Arrow Highway (North).

EXHIBIT 4-K

INTERIM YEAR (2017) WITH PROJECT AVERAGE DAILY TRAFFIC (ADT)



LEGEND:

10.0 = VEHICLES PER DAY (1000'S)

N

EXHIBIT 4-L

INTERIM YEAR (2017) WITH PROJECT AM PEAK HOUR INTERSECTION VOLUMES

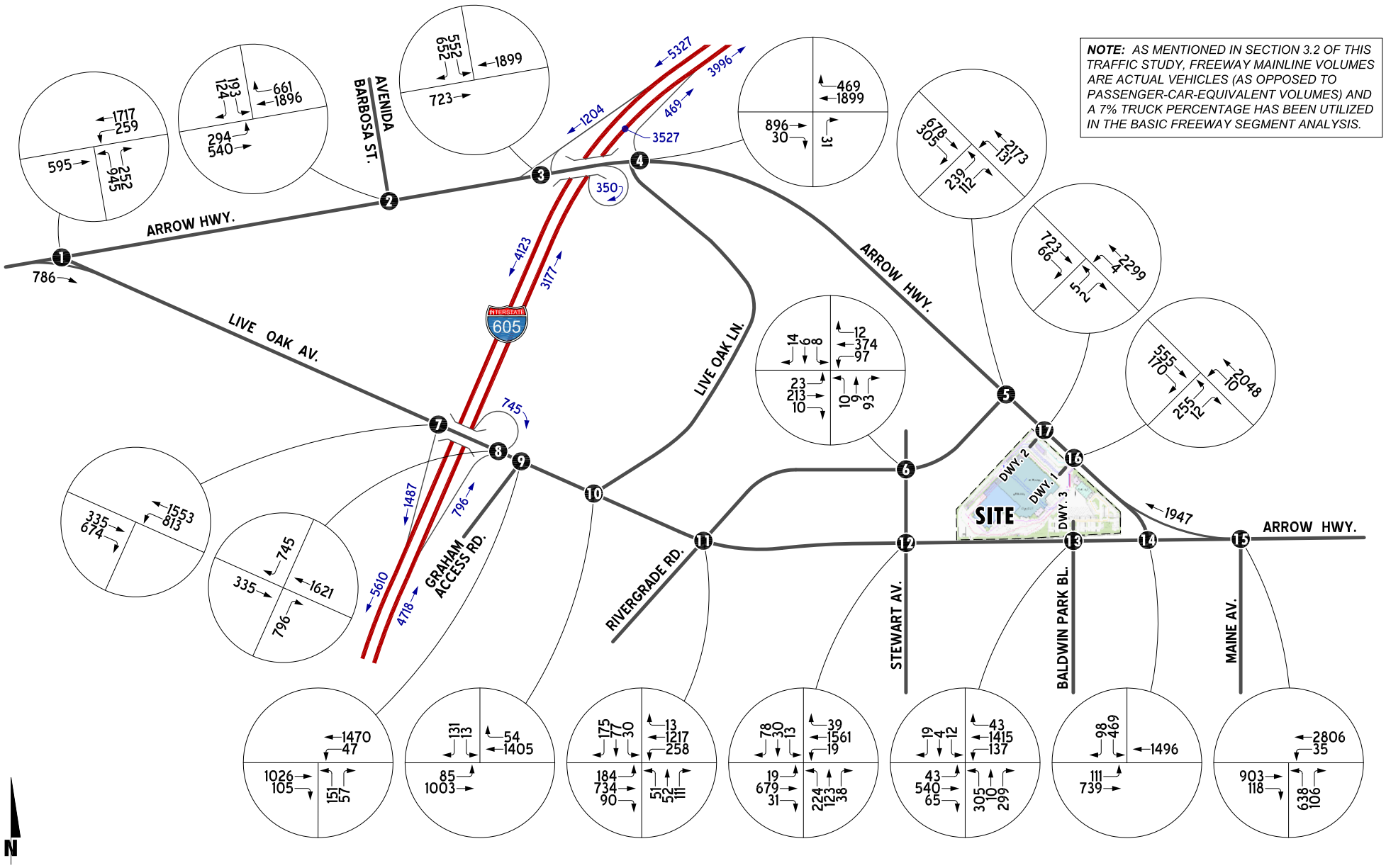


EXHIBIT 4-M

INTERIM YEAR (2017) WITH PROJECT PM PEAK HOUR INTERSECTION VOLUMES

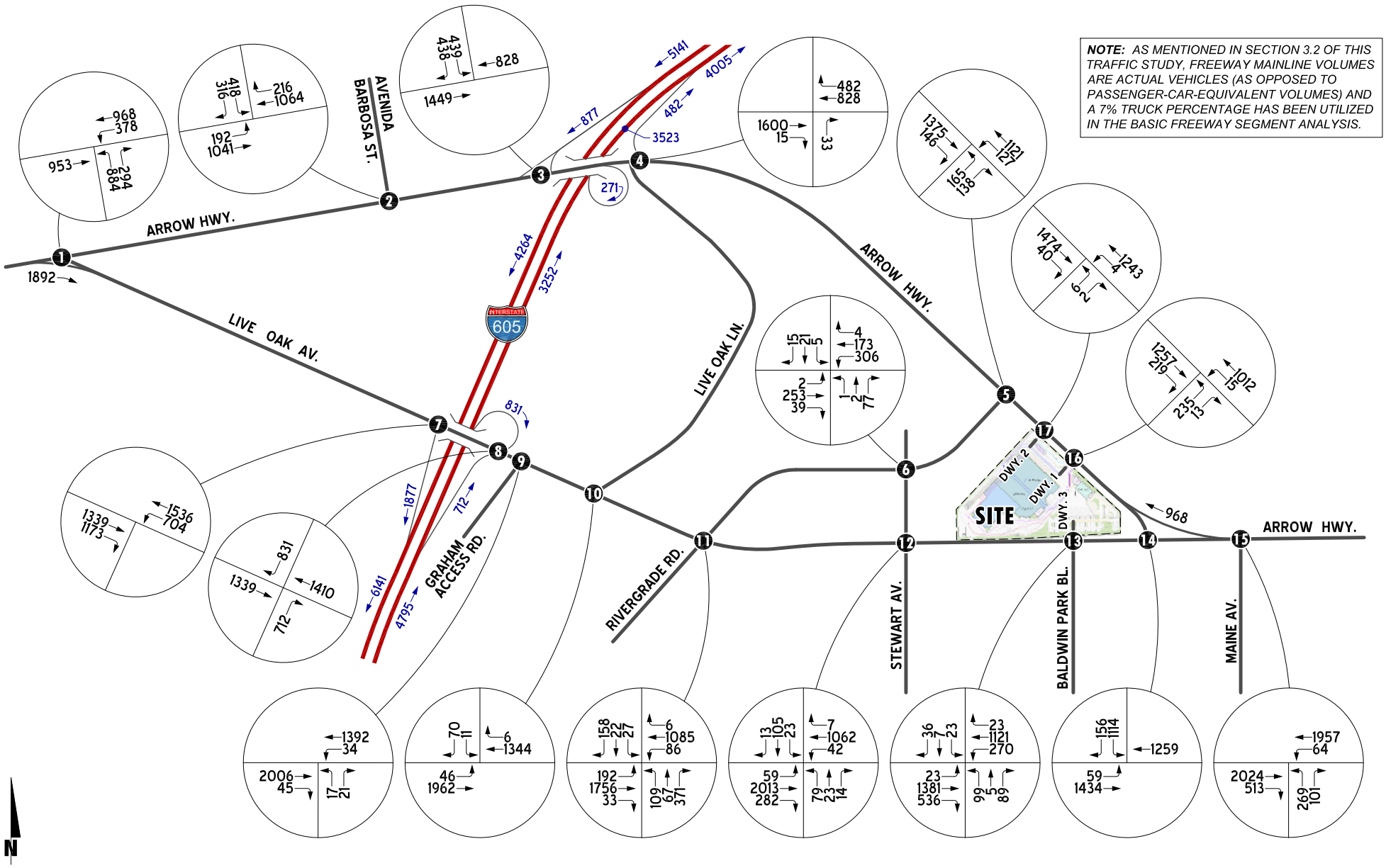
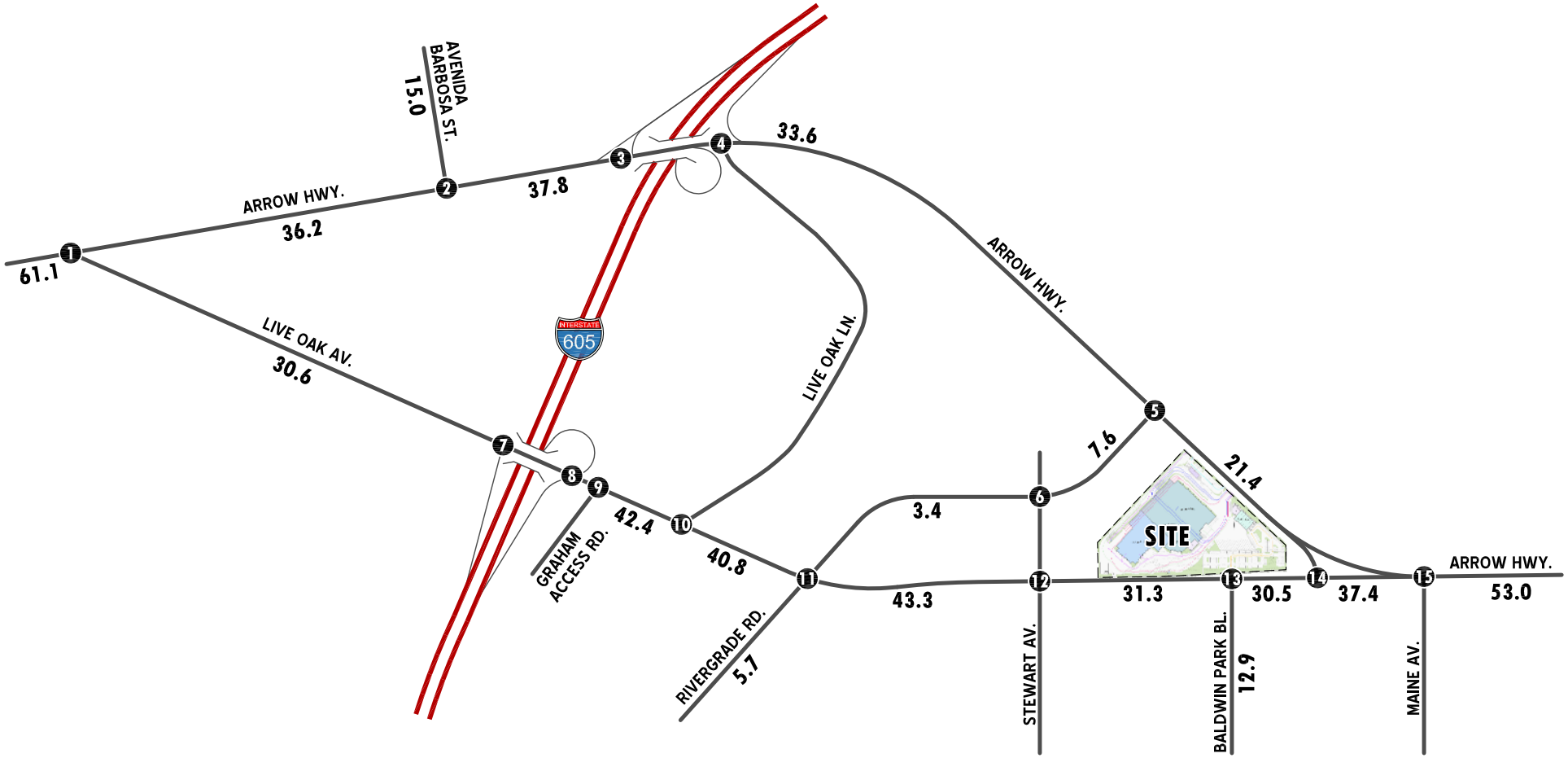


EXHIBIT 4-N

LONG RANGE HORIZON YEAR (2035) WITHOUT PROJECT AVERAGE DAILY TRAFFIC (ADT)



LEGEND:

10.0 = VEHICLES PER DAY (1000'S)

N

EXHIBIT 4-O

LONG RANGE HORIZON YEAR (2035) WITHOUT PROJECT AM PEAK HOUR INTERSECTION VOLUMES

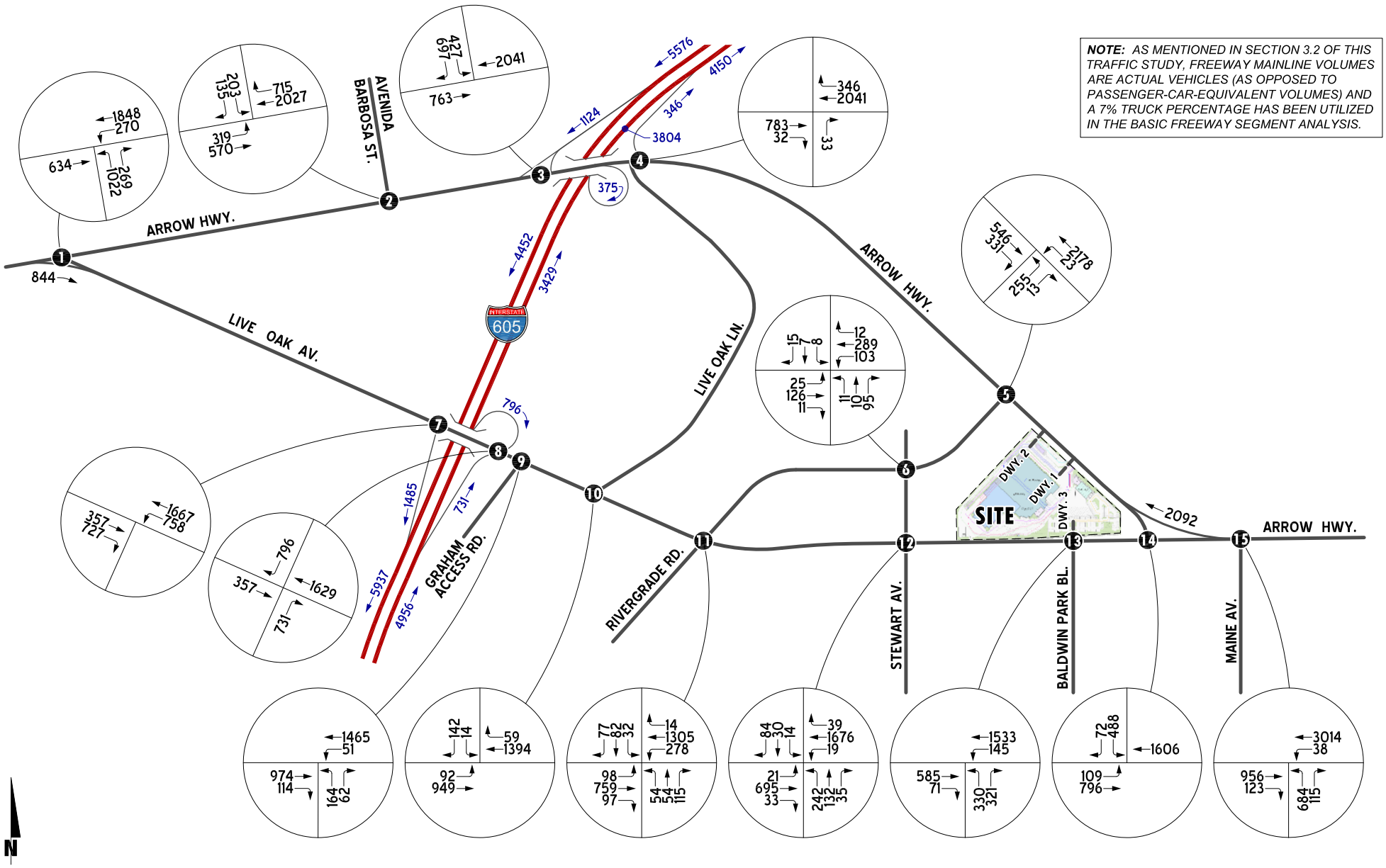


EXHIBIT 4-P

LONG RANGE HORIZON YEAR (2035) WITHOUT PROJECT PM PEAK HOUR INTERSECTION VOLUMES

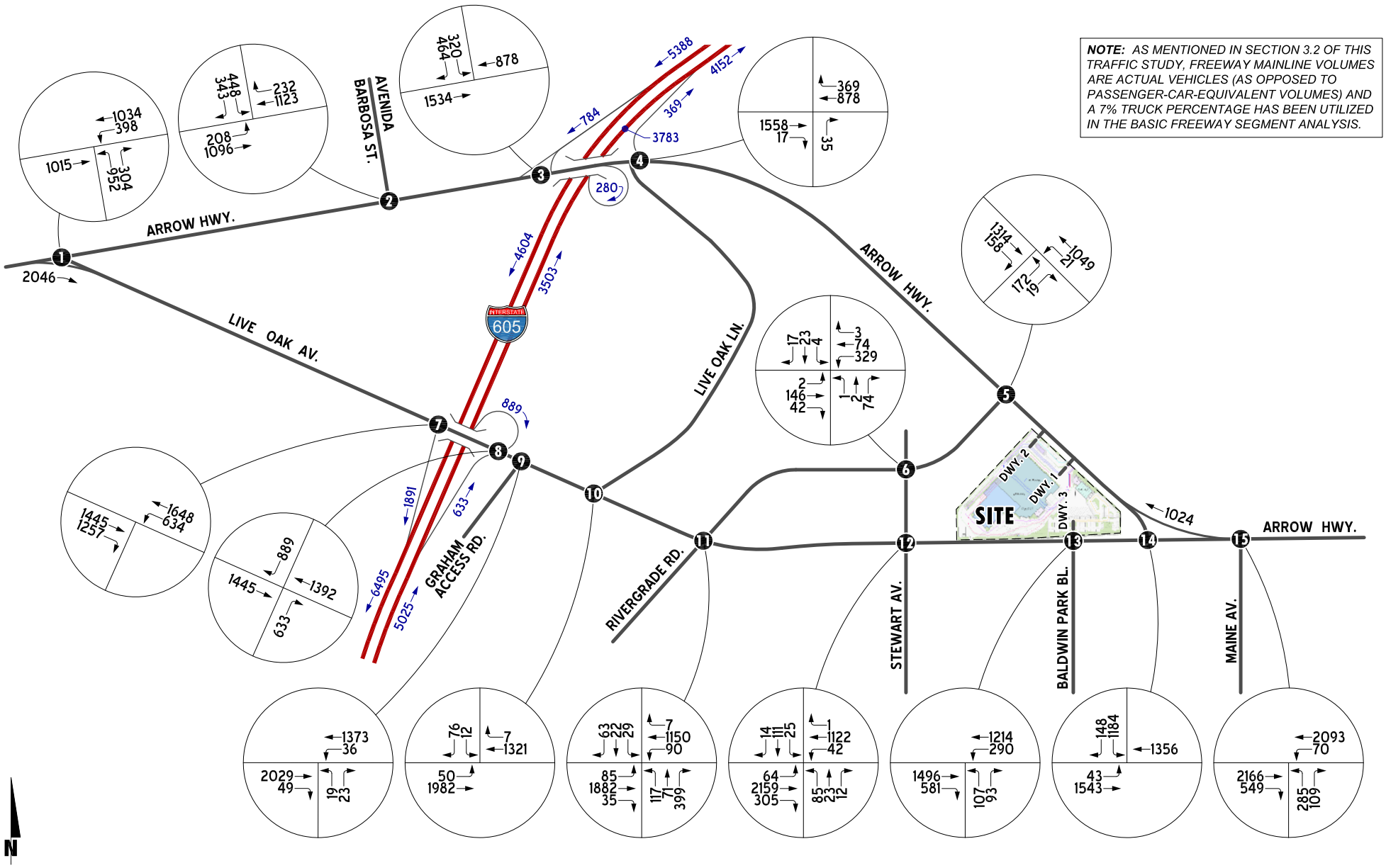
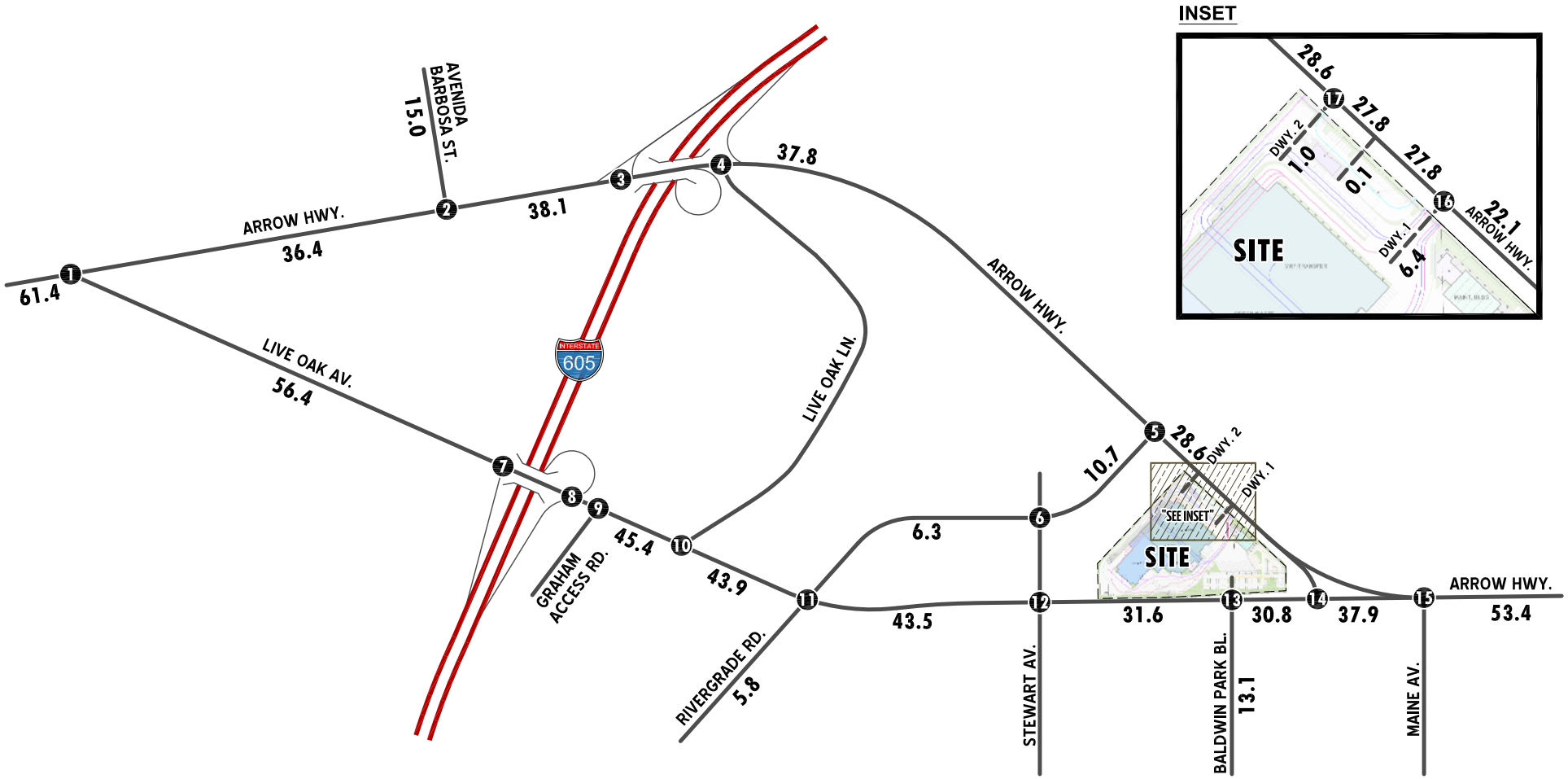


EXHIBIT 4-Q

LONG RANGE HORIZON YEAR (2035) WITH PROJECT AVERAGE DAILY TRAFFIC (ADT)



LEGEND:

10.0 = VEHICLES PER DAY (1000'S)

N

EXHIBIT 4-R

LONG RANGE HORIZON YEAR (2035) WITH PROJECT AM PEAK HOUR INTERSECTION VOLUMES

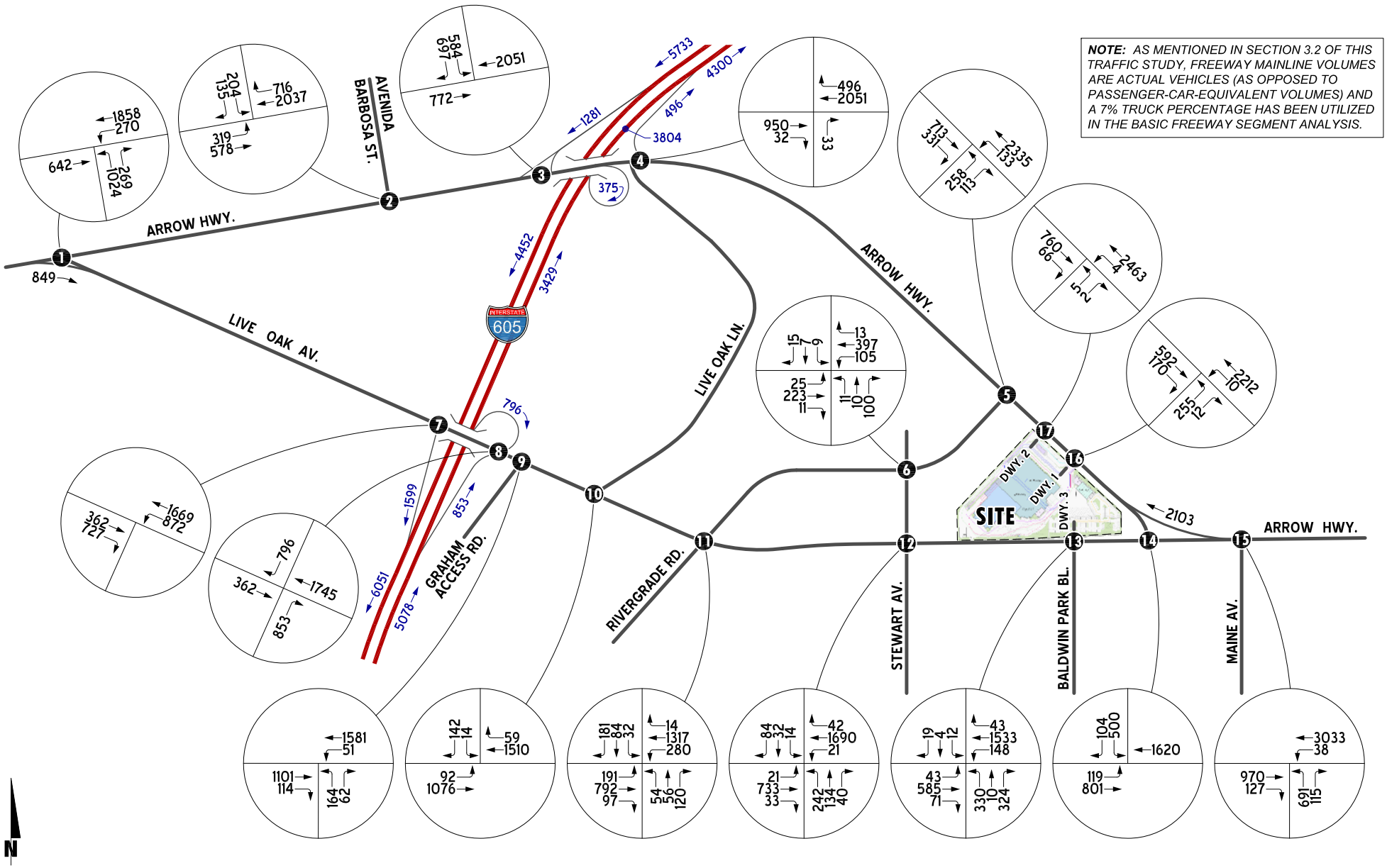
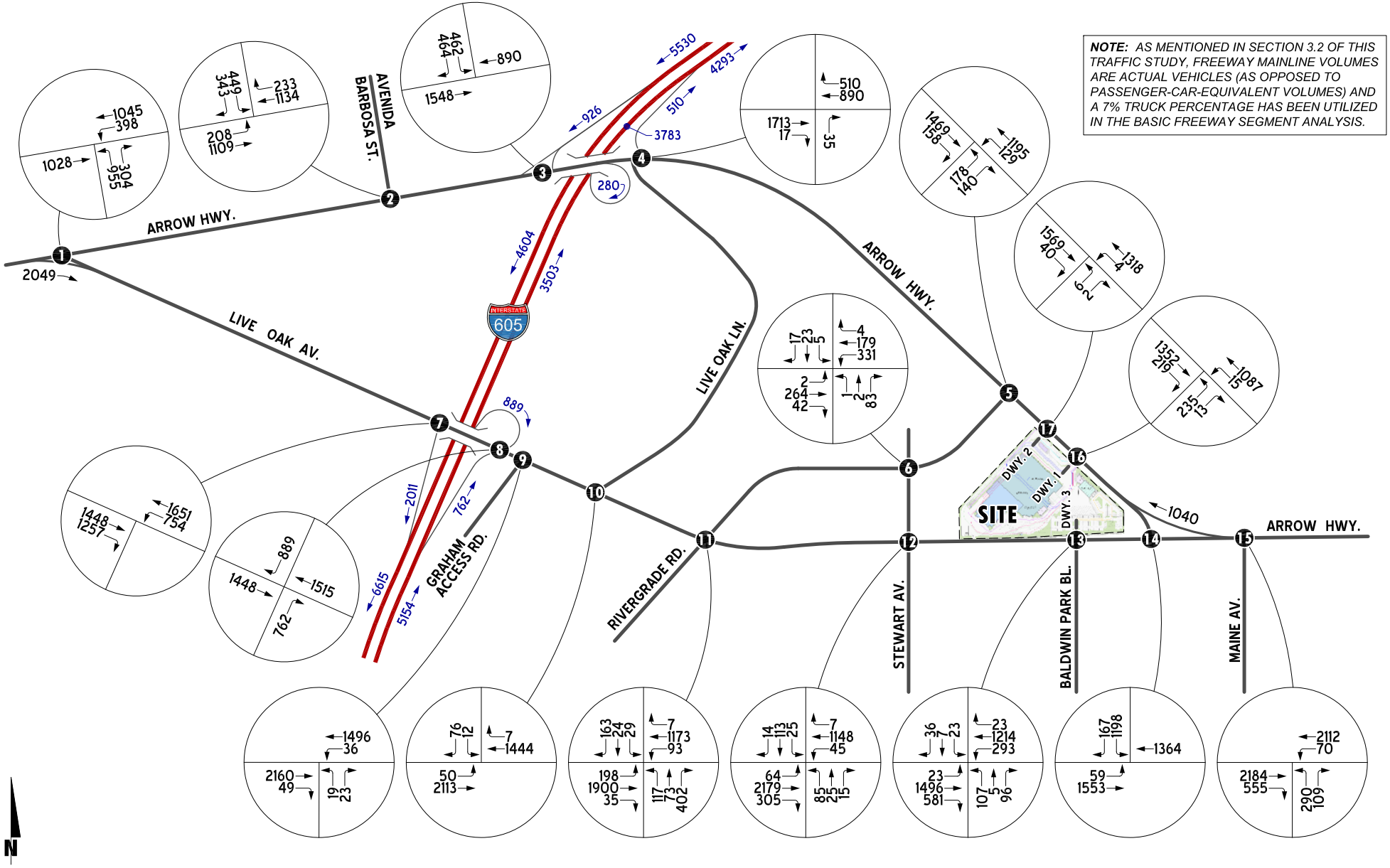


EXHIBIT 4-S

LONG RANGE HORIZON YEAR (2035) WITH PROJECT PM PEAK HOUR INTERSECTION VOLUMES



5.0 TRAFFIC ANALYSIS

5.1 DELAY, CAPACITY, LEVEL OF SERVICE, AND IMPROVEMENTS

5.1.1 EXISTING PLUS PROJECT

HCM delay and ICU calculations for Existing Plus Project conditions are shown in Table 5-1. The operation analysis worksheets are included in Appendix "J". Table 5-1 shows the operations analysis at the study area intersections with and without improvements. For Existing Plus Project conditions, the following study area intersection is anticipated to continue to operate at unacceptable level of service (LOS "E" or worse) during the peak hours, with existing geometry:

ID	Intersection Location	Jurisdiction
8	I-605 NB Off-Ramp (NS) / Live Oak Av. (EW)	Caltrans

Table 5-2 provides a summary comparison of the intersection analysis operations for Existing (2016) and Existing Plus Project conditions. Table 5-2 also identifies any "significant impacts" (as defined in the City of Irwindale traffic study guidelines). As shown on Table 5-2, a significant impact is projected for the intersection of I-605 NB Off-Ramp and Live Oak Avenue.

As shown in Table 5-1 and Table 5-2, the following improvements are necessary to reduce the Project's proportionate increase in delay to pre-project levels or better, thus reducing the Project's impact to *"less-than-significant":*

I-605 NB Off-Ramp (NS) / Live Oak Avenue (#8)

- Install a traffic signal.
- Construct a second northbound right turn lane.
- Provide a third westbound through lane by modifying the existing raised median.

5.1.2 INTERIM YEAR (2017) WITHOUT PROJECT

HCM delay and ICU calculations for Interim Year (2017) Without Project conditions are shown in Table 5-3. The operation analysis worksheets are included in Appendix "K". Table 5-3 shows the operations analysis at the study area intersections with and without improvements. For Interim Year (2017) Without Project conditions, the following study area intersection is projected to continue to operate at unacceptable level of service (LOS "E" or worse) during the peak hours, with existing geometry:

ID	Intersection Location	Jurisdiction
8	I-605 NB Off-Ramp (NS) / Live Oak Av. (EW)	Caltrans

Even though the ICU results show that intersections of Live Oak Avenue (West) / Arrow Highway (#1), Avenida Barbosa Street / Arrow Highway (#2), I-605 SB On-Ramp / Live Oak Avenue (#7), Rivergrade Road / Live Oak Avenue (#11) operates at LOS "E" during the peak hours under Interim Year (2017) Without Project conditions, the HCM results show that the intersection operates at acceptable LOS (LOS "D" or better). The HCM results present a more accurate representation of the intersection operational level.

TABLE 5-1

EXISTING PLUS PROJECT CONDITIONS
INTERSECTIONS ANALYSIS SUMMARY

#	INTERSECTION	TRAFFIC CONTROL[3]	INTERSECTION APPROACH LANES[1]												HCM[2]				ICU[4]			
			NORTH-BOUND			SOUTH-BOUND			EAST-BOUND			WEST-BOUND			DELAY (SECS.)		LEVEL OF SERVICE		(V/C)		LEVEL OF SERVICE	
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM	AM	PM	AM	PM
1	Live Oak Av. (West) (NS) / Arrow Hwy. (EW)	TS	2	0	1>>	0	0	0	0	2	2>>	2	2	0	18.1	21.4	B	C	0.89	0.67	D	B
2	Avenida Barbosa St. (NS) / Arrow Hwy. (EW)	TS	0	0	0	2	0	1	1	2	0	0	2	1	16.9	14.4	B	B	0.82	0.55	D	A
3	I-605 SB Off-Ramp (NS) / Arrow Hwy. (EW)	TS	0	0	0	1	0	1>>	0	3	0	0	2	0	27.2	10.8	C	B	0.93	0.55	E	A
4	I-605 NB On-Ramp/Live Oak Ln. (NS) / Arrow Hwy. (EW)	CSS	0	0	1	0	0	0	0	2	d	0	2	1>>	11.4	16.6	B	C	NA	NA	NA	NA
5	Arrow Hwy. (NS) / Rivergrade Rd. (EW)	TS	1	2	0	0	2	1	2	0	1	0	0	0	6.6	7.0	A	A	0.75	0.44	C	A
6	Stewart Av. (NS) / Rivergrade Rd. (EW)	TS	1	1	0	0	1	0	1	2	0	1	2	0	31.4	24.2	C	C	0.18	0.46	A	A
7	I-605 SB On-Ramp (NS) / Live Oak Av. (EW)	TS	0	0	0	0	0	0	0	2	1>>	1	2	0	5.5	14.4	A	B	0.65	0.89	B	D
8	I-605 NB Off-Ramp (NS) / Live Oak Av. (EW)																					
	- Without Improvements	CSS	0	0	1	0	0	1	0	2	0	0	2	0	>80	>80	F	F	NA	NA	NA	NA
	- With Improvements	TS	0	0	2	--	--	1	0	2	0	0	3	0	0.8	2.2	A	A	0.74	0.88	C	D
9	Graham Access Rd. (NS) / Live Oak Av. (EW)	TS	0	1	0	0	0	0	0	2	d	1	2	0	16.3	2.3	B	A	0.61	0.68	B	B
10	Live Oak Ln. (NS) / Live Oak Av. (EW)	CSS	0	0	0	0	1	0	1	2	0	0	2	d	12.9	11.0	B	B	NA	NA	NA	NA
11	Rivergrade Rd. (NS) / Live Oak Av. (EW)	TS	1	1	1>	1	2	1	1	2	1	1	2	1	23.0	33.5	C	C	0.65	0.90	B	D
12	Stewart Av. (NS) / Live Oak Av. (EW)	TS	0	1	0	1	1	1	1	2	1	1	2	d	15.2	4.0	B	A	0.77	0.79	C	C
13	Baldwin Park Bl. - Dwy. 3 (NS) / Live Oak Av. (EW)	TS	2	1	0	1	1	0	1	2	d	1	2	1	15.9	25.5	B	C	0.67	0.74	B	C
14	Arrow Hwy. (NS) / Live Oak Av. (EW)	TS	0	0	0	2	0	1	1	2	0	0	2	2>>	10.1	15.7	B	B	0.57	0.74	A	C
15	Maine Av. (NS) / Arrow Hwy. (EW)	TS	2	0	1	0	0	0	0	2	d	1	3	0	18.6	10.4	B	B	0.82	0.77	D	C
16	Arrow Hwy. (NS) / Dwy. 1 (EW)	TS	1	2	0	0	2	1	1	0	1	0	0	0	11.4	7.0	B	A	0.80	0.55	C	A
17	Arrow Hwy. (NS) / Dwy. 2 (EW)	CSS	0	2	0	0	2	1	0	1	0	0	0	0	20.7	26.9	C	D	NA	NA	NA	NA

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width (23') for right turning vehicles to travel outside the through lanes.
L = Left; T = Through; R = Right; 1>> = Free Right Turn Lane; d = Defacto Right Turn Lane; 1 = Improvement

[2] Delay and level of service (LOS) calculated using the following analysis software: Synchro 8. Per the 2010 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for worst individual movement (or movements sharing a single lane) are shown. "NA" value is shown for unsignalized ICU values.

[3] TS = Traffic Signal; CSS = Cross Street Stop.

[4] The Synchro v/c output results are discussed in the City of Irwindale Policy Guidelines for Traffic Impact Reports under Section B (page insert) and indicated that the v/c ratio results in the Synchro are based on ICU and should be presented in addition to delay information.

* BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

TABLE 5-2

EXISTING AND EXISTING PLUS PROJECT
INTERSECTION ANALYSIS SUMMARY COMPARISON

#	INTERSECTION	TRAFFIC Control[3]	INTERSECTION APPROACH LANES[1]												HCM[2]				ICU[4]				SIGNIFICANT IMPACT?[5]
			NORTH-BOUND			SOUTH-BOUND			EAST-BOUND			WEST-BOUND			DELAY (SECS.)		LEVEL OF SERVICE[2]		(V/C)		LEVEL OF SERVICE		
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM	AM	PM	AM	PM	
1	Live Oak Av. (West) (NS) / Arrow Hwy. (EW)																						
	• Existing	TS	2	0	1>>	0	0	0	0	2	2>>	2	2	0	18.1	21.4	B	C	0.88	0.67	D	B	
	• Existing + Project	TS	2	0	1>>	0	0	0	0	2	2>>	2	2	0	18.1	21.4	B	C	0.89	0.67	D	B	NO
2	Avenida Barbosa St. (NS) / Arrow Hwy. (EW)																						
	• Existing	TS	0	0	0	2	0	1	1	2	0	0	2	1	15.0	14.3	B	B	0.81	0.55	D	A	
	• Existing + Project	TS	0	0	0	2	0	1	1	2	0	0	2	1	16.9	14.4	B	B	0.82	0.55	D	A	NO
3	I-605 SB Off-Ramp (NS) / Arrow Hwy. (EW)																						
	• Existing	TS	0	0	0	1	0	1>>	0	3	0	0	2	0	17.4	8.0	B	A	0.82	0.45	D	A	
	• Existing + Project	TS	0	0	0	1	0	1>>	0	3	0	0	2	0	27.2	10.8	C	B	0.93	0.55	E	A	NO
4	I-605 NB On-Ramp/Live Oak Ln. (NS) / Arrow Hwy. (EW)																						
	• Existing	CSS	0	0	1	0	0	0	0	2	d	0	2	1>>	10.6	15.1	B	C	NA	NA	NA	NA	
	• Existing + Project	CSS	0	0	1	0	0	0	0	2	d	0	2	1>>	11.4	16.6	B	C	NA	NA	NA	NA	NO
5	Arrow Hwy. (NS) / Rivergrade Rd. (EW)																						
	• Existing	TS	1	2	0	0	2	1	2	0	1	0	0	0	7.9	5.4	A	A	0.70	0.39	B	A	
	• Existing + Project	TS	1	2	0	0	2	1	2	0	1	0	0	0	6.6	7.0	A	A	0.75	0.44	C	A	NO
6	Stewart Av. (NS) / Rivergrade Rd. (EW)																						
	• Existing	TS	1	1	0	0	1	0	1	2	0	1	2	0	32.3	24.2	C	C	0.15	0.39	A	A	
	• Existing + Project	TS	1	1	0	0	1	0	1	2	0	1	2	0	31.4	24.2	C	C	0.18	0.46	A	A	NO
7	I-605 SB On-Ramp (NS) / Live Oak Av. (EW)																						
	• Existing	TS	0	0	0	0	0	0	0	2	1>>	1	2	0	5.0	12.1	A	B	0.58	0.81	A	D	
	• Existing + Project	TS	0	0	0	0	0	0	0	2	1>>	1	2	0	5.5	14.4	A	B	0.65	0.89	B	D	NO

TABLE 5-2

EXISTING AND EXISTING PLUS PROJECT
INTERSECTION ANALYSIS SUMMARY COMPARISON

#	INTERSECTION	TRAFFIC Control[3]	INTERSECTION APPROACH LANES[1]												HCM[2]				ICU[4]				SIGNIFICANT IMPACT?[5]
			NORTH-BOUND			SOUTH-BOUND			EAST-BOUND			WEST-BOUND			DELAY (SECS.)		LEVEL OF SERVICE[2]		(V/C)		LEVEL OF SERVICE		
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM	AM	PM	AM	PM	
8	I-605 NB Off-Ramp (NS) / Live Oak Av. (EW)																						
	• Existing	CSS	0	0	1	0	0	1	0	2	0	0	2	0	>80	>80	F	F	NA	NA	NA	NA	
	• Existing + Project	CSS	0	0	1	0	0	1	0	2	0	0	2	0	>80	>80	F	F	NA	NA	NA	NA	YES
	- With Improvements	TS	0	0	2	--	--	1	0	2	0	0	3	0	0.8	2.2	A	A	0.74	0.88	C	D	NO
9	Graham Access Rd. (NS) / Live Oak Av. (EW)																						
	• Existing	TS	0	1	0	0	0	0	0	2	d	1	2	0	14.9	2.3	B	A	0.57	0.64	A	B	
	• Existing + Project	TS	0	1	0	0	0	0	0	2	d	1	2	0	16.3	2.3	B	A	0.61	0.68	B	B	NO
10	Live Oak Ln. (NS) / Live Oak Av. (EW)																						
	• Existing	CSS	0	0	0	0	1	0	1	2	0	0	2	d	13.2	12.7	B	B	NA	NA	NA	NA	
	• Existing + Project	CSS	0	0	0	0	1	0	1	2	0	0	2	d	12.9	11.0	B	B	NA	NA	NA	NA	NO
11	Rivergrade Rd. (NS) / Live Oak Av. (EW)																						
	• Existing	TS	1	1	1>	1	2	1	1	2	1	1	2	1	19.1	31.7	B	C	0.61	0.88	B	D	
	• Existing + Project	TS	1	1	1>	1	2	1	1	2	1	1	2	1	23.0	33.5	C	C	0.65	0.90	B	D	NO
12	Stewart Av. (NS) / Live Oak Av. (EW)																						
	• Existing	TS	0	1	0	1	1	1	1	2	1	1	2	d	11.2	4.1	B	A	0.76	0.78	C	C	
	• Existing + Project	TS	0	1	0	1	1	1	1	2	1	1	2	d	15.2	4.0	B	A	0.77	0.79	C	C	NO
13	Baldwin Park Bl. - Dwy. 3 (NS) / Live Oak Av. (EW)																						
	• Existing	TS	2	0	1	0	0	0	0	2	d	1	2	0	11.6	20.8	B	C	0.58	0.68	A	B	
	• Existing + Project	TS	2	1	0	1	1	0	1	2	d	1	2	1	15.9	25.5	B	C	0.67	0.74	B	C	NO

TABLE 5-2

EXISTING AND EXISTING PLUS PROJECT
INTERSECTION ANALYSIS SUMMARY COMPARISON

#	INTERSECTION	TRAFFIC Control[3]	INTERSECTION APPROACH LANES[1]												HCM[2]				ICU[4]				SIGNIFICANT IMPACT?[5]
			NORTH-BOUND			SOUTH-BOUND			EAST-BOUND			WEST-BOUND			DELAY (SECS.)		LEVEL OF SERVICE[2]		(V/C)		LEVEL OF SERVICE		
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM	AM	PM	AM	PM	
14	Arrow Hwy. (NS) / Live Oak Av. (EW)																						
	• Existing	TS	0	0	0	2	0	1	1	2	0	0	2	2>>	12.1	23.7	B	C	0.56	0.74	A	C	
	• Existing + Project	TS	0	0	0	2	0	1	1	2	0	0	2	2>>	10.1	15.7	B	B	0.57	0.74	A	C	NO
15	Maine Av. (NS) / Arrow Hwy. (EW)																						
	• Existing	TS	2	0	1	0	0	0	0	2	d	1	3	0	17.9	10.3	B	B	0.82	0.75	D	C	
	• Existing + Project	TS	2	0	1	0	0	0	0	2	d	1	3	0	18.6	10.4	B	B	0.82	0.77	D	C	NO
16	Arrow Hwy. (NS) / Dwy. 1 (EW)																						
	• Existing	-	DOES NOT EXIST												NA	NA	NA	NA	NA	NA	NA	NA	
	• Existing + Project	TS	1	2	0	0	2	1	1	0	1	0	0	0	11.4	7.0	B	A	0.80	0.55	C	A	NO
17	Arrow Hwy. (NS) / Dwy. 2 (EW)																						
	• Existing	-	DOES NOT EXIST												NA	NA	NA	NA	NA	NA	NA	NA	
	• Existing + Project	CSS	0	2	0	0	2	1	0	1	0	0	0	0	20.7	26.9	C	D	NA	NA	NA	NA	NO

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width (23') for right turning vehicles to travel outside the through lanes.
L = Left; T = Through; R = Right; 1>> = Free Right Turn Lane; d = Defacto Right Turn Lane; 1 = Improvement

[2] Delay and level of service calculated using the following analysis software: Synchro 8. Per the 2010 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for worst individual movement (or movements sharing a single lane) are shown. "NA" value is shown for unsignalized ICU values.

[3] TS = Traffic Signal; CSS = Cross Street Stop.

[4] The Synchro v/c output results are discussed in the City of Irwindale Policy Guidelines for Traffic Impact Reports under Section B (page insert) and indicated that the v/c ratio results in the Synchro are based on ICU and should be presented in addition to delay information.

[5] Per City of Irwindale traffic study guidelines, a significant impact is identified if one of the following criterias are met:
- For Signalized Intersections
  - When an intersection operates at acceptable LOS ("D" or better) for baseline conditions and the addition of project results in unacceptable LOS ("E" or "F").
  - When a State Highway intersection operates at acceptable LOS ("E" or better) for baseline conditions and the addition of project results in unacceptable LOS "F".
  - When an intersection operates at LOS "F" for baseline conditions and the project adds more than 50 peak hour project trips .
- For Unsignalized Intersections
  - When the minor stop-contolled approach operates at LOS "F" and does not have acceptable LOS in terms of average delay, and the addition of project increases the total control delay to more than 4.0 hours for single lane approach and 5.0 hours for multilane approach.

* BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

TABLE 5-3

INTERIM YEAR (2017) WITHOUT PROJECT CONDITIONS
INTERSECTIONS ANALYSIS SUMMARY

#	INTERSECTION	TRAFFIC CONTROL[3]	INTERSECTION APPROACH LANES[1]												HCM[2]				ICU[4]			
			NORTH-BOUND			SOUTH-BOUND			EAST-BOUND			WEST-BOUND			DELAY (SECS.)		LEVEL OF SERVICE		(V/C)		LEVEL OF SERVICE	
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM	AM	PM	AM	PM
1	Live Oak Av. (West) (NS) / Arrow Hwy. (EW)	TS	2	0	1>>	0	0	0	0	2	2>>	2	2	0	20.8	24.7	C	C	0.92	0.77	E	C
2	Avenida Barbosa St. (NS) / Arrow Hwy. (EW)																					
	- Without Improvements	TS	0	0	0	2	0	1	1	2	0	0	2	1	21.5	15.8	C	B	0.93	0.65	E	B
	- With Improvements[5]	TS	0	0	0	2	0	1	2	2	0	0	2	1	16.5	13.2	B	B	0.83	0.59	D	A
3	I-605 SB Off-Ramp (NS) / Arrow Hwy. (EW)	TS	0	0	0	1	0	1>>	0	3	0	0	2	0	18.9	7.5	B	A	0.87	0.57	D	A
4	I-605 NB On-Ramp/Live Oak Ln. (NS) / Arrow Hwy. (EW)	CSS	0	0	1	0	0	0	0	2	d	0	2	1>>	11.1	16.5	B	C	NA	NA	NA	NA
5	Arrow Hwy. (NS) / Rivergrade Rd. (EW)	TS	1	2	0	0	2	1	2	0	1	0	0	0	8.2	5.3	A	A	0.74	0.44	C	A
6	Stewart Av. (NS) / Rivergrade Rd. (EW)	TS	1	1	0	0	1	0	1	2	0	1	2	0	32.1	24.2	C	C	0.15	0.42	A	A
7	I-605 SB On-Ramp (NS) / Live Oak Av. (EW)	TS	0	0	0	0	0	0	0	2	1>>	1	2	0	5.1	12.3	A	B	0.60	0.96	A	E
8	I-605 NB Off-Ramp (NS) / Live Oak Av. (EW)																					
	- Without Improvements	CSS	0	0	1	0	0	1	0	2	0	0	2	0	>80	>80	F	F	NA	NA	NA	NA
	- With Improvements	TS	0	0	2	--	--	1	0	2	0	0	3	0	0.8	2.3	A	A	0.83	0.98	D	E
9	Graham Access Rd. (NS) / Live Oak Av. (EW)	TS	0	1	0	0	0	0	0	2	d	1	2	0	16.2	2.3	B	A	0.59	0.72	A	C
10	Live Oak Ln. (NS) / Live Oak Av. (EW)	CSS	0	0	0	0	1	0	1	2	0	0	2	d	12.9	12.3	B	B	NA	NA	NA	NA
11	Rivergrade Rd. (NS) / Live Oak Av. (EW)	TS	1	1	1>	1	2	1	1	2	1	1	2	1	19.6	33.8	B	C	0.64	0.95	B	E
12	Stewart Av. (NS) / Live Oak Av. (EW)	TS	0	1	0	1	1	1	1	2	1	1	2	d	11.8	4.2	B	A	0.79	0.81	C	D
13	Baldwin Park Bl. - Dwy. 3 (NS) / Live Oak Av. (EW)	TS	2	0	1	0	0	0	0	2	d	1	2	0	11.7	21.0	B	C	0.60	0.70	A	B
14	Arrow Hwy. (NS) / Live Oak Av. (EW)																					
	- Without Improvements	TS	0	0	0	2	0	1	1	2	0	0	2	2>>	14.3	25.9	B	C	0.60	0.79	A	C
	- With Improvements[5]	TS	0	0	0	2	0	1	1	3	0	0	2	2>>	11.3	21.4	B	C	0.60	0.74	A	C
15	Maine Av. (NS) / Arrow Hwy. (EW)	TS	2	0	1	0	0	0	0	2	d	1	3	0	19.2	11.3	B	B	0.86	0.85	D	D
16	Arrow Hwy. (NS) / Dwy. 1 (EW)	-	DOES NOT EXIST												NA	NA	NA	NA	NA	NA	NA	NA
17	Arrow Hwy. (NS) / Dwy. 2 (EW)	-	DOES NOT EXIST												NA	NA	NA	NA	NA	NA	NA	NA

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width (23') for right turning vehicles to travel outside the through lanes.
L = Left; T = Through; R = Right; 1>> = Free Right Turn Lane; d = Defacto Right Turn Lane; 1 = Improvement

[2] Delay and level of service (LOS) calculated using the following analysis software: Synchro 8. Per the 2010 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for worst individual movement (or movements sharing a single lane) are shown. "NA" value is shown for unsignalized ICU values.

[3] TS = Traffic Signal; CSS = Cross Street Stop.

[4] The Synchro v/c output results are discussed in the City of Irwindale Policy Guidelines for Traffic Impact Reports under Section B (page insert) and indicated that the v/c ratio results in the Synchro are based on ICU and should be presented in addition to delay information.

[5] 1 = Improvements consistent with the Irwindale Regional Shopping Center Traffic Impact Analysis (11/2014). Prepared by LSA Associates, Inc.

* BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

5.1.3 INTERIM YEAR (2017) WITH PROJECT

HCM delay and ICU calculations for Interim Year (2017) With Project conditions are shown in Table 5-4. The operation analysis worksheets are included in Appendix "L". Table 5-4 shows the operations analysis at the study area intersections with and without improvements. For Interim Year (2017) With Project conditions, no additional intersection is projected to operate at unacceptable level of service compared to Interim Year (2017) Without Project conditions.

It should be noted that even though the ICU results show that the intersections of Live Oak Avenue (West) / Arrow Highway (#1), Avenida Barbosa Street / Arrow Highway (#2), I-605 SB off-ramp / Arrow Highway (#3), I-605 SB On-Ramp / Live Oak Avenue (#7), and Rivergrade Road / Live Oak Avenue (#11) operates at LOS "E" during peak hours under Interim Year (2017) With Project conditions, the HCM results show that these intersections operate at acceptable LOS (LOS "D" or better). The HCM results present a more accurate representation of the intersection operational level.

Table 5-5 summarizes the intersection analysis operations for Interim Year (2017) Without Project and Interim Year With Project conditions. Table 5-5 also identifies any "significant impacts" (as defined in the City of Irwindale traffic study guidelines). As shown on Table 5-5, a significant impact is projected for the intersection of I-605 NB Off-Ramp and Live Oak Avenue.

As shown in Table 5-4 and Table 5-5, the following improvements are necessary to reduce the Project's proportionate increase in delay to pre-project levels or better, thus reducing the Project's impact to *"less-than-significant":*

I-605 NB Off-Ramp (NS) / Live Oak Avenue (#8)

- Install a traffic signal.
- Construct a second northbound right turn lane.
- Provide a third westbound through lane by removing the existing raised median.

The ICU results show that the intersection of I-605 NB Off-Ramp / Live Oak Avenue (#8) with improvements operates at LOS "E" during peak hours. However, the HCM results show that this intersection operates at acceptable LOS (LOS "D" or better). The HCM results present a more accurate representation of the intersection operational level.

5.1.4 LONG RANGE (2035) WITHOUT PROJECT

HCM delay and ICU calculations for Long Range (2035) Without Project conditions are shown in Table 5-6. The operation analysis worksheets are included in Appendix "M". Table 5-6 shows the operations analysis at the study area intersections with and without improvements. For Long Range (2035) Without Project conditions the following study area intersection is projected to operate at unacceptable level of service (LOS "E" or worse) during the peak hours, with existing geometry:

ID	Intersection Location	Jurisdiction
8	I-605 NB Off-Ramp (NS) / Live Oak Av. (EW)	Caltrans

TABLE 5-4

INTERIM YEAR (2017) WITH PROJECT CONDITIONS
INTERSECTIONS ANALYSIS SUMMARY

#	INTERSECTION	TRAFFIC CONTROL[3]	INTERSECTION APPROACH LANES[1]												HCM[2]				ICU[4]			
			NORTH-BOUND			SOUTH-BOUND			EAST-BOUND			WEST-BOUND			DELAY (SECS.)		LEVEL OF SERVICE		(V/C)		LEVEL OF SERVICE	
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM	AM	PM	AM	PM
1	Live Oak Av. (West) (NS) / Arrow Hwy. (EW)	TS	2	0	1>>	0	0	0	0	2	2>>	2	2	0	20.9	24.8	C	C	0.92	0.77	E	C
2	Avenida Barbosa St. (NS) / Arrow Hwy. (EW)																					
	- Without Improvements	TS	0	0	0	2	0	1	1	2	0	0	2	1	23.8	16.4	C	B	0.93	0.65	E	B
	- With Improvements[5]	TS	0	0	0	2	0	1	2	2	0	0	2	1	16.1	13.3	B	B	0.83	0.59	D	A
3	I-605 SB Off-Ramp (NS) / Arrow Hwy. (EW)	TS	0	0	0	1	0	1>>	0	3	0	0	2	0	32.5	10.6	C	B	0.98	0.63	E	B
4	I-605 NB On-Ramp/Live Oak Ln. (NS) / Arrow Hwy. (EW)	CSS	0	0	1	0	0	0	0	2	d	0	2	1>>	12.0	18.2	B	C	NA	NA	NA	NA
5	Arrow Hwy. (NS) / Rivergrade Rd. (EW)	TS	1	2	0	0	2	1	2	0	1	0	0	0	6.8	6.9	A	A	0.80	0.51	C	A
6	Stewart Av. (NS) / Rivergrade Rd. (EW)	TS	1	1	0	0	1	0	1	2	0	1	2	0	31.1	24.8	C	C	0.19	0.47	A	A
7	I-605 SB On-Ramp (NS) / Live Oak Av. (EW)	TS	0	0	0	0	0	0	0	2	1>>	1	2	0	5.5	15.2	A	B	0.67	0.92	B	E
8	I-605 NB Off-Ramp (NS) / Live Oak Av. (EW)																					
	- Without Improvements	CSS	0	0	1	0	0	1	0	2	0	0	2	0	>80	>80	F	F	NA	NA	NA	NA
	- With Improvements	TS	0	0	2	--	--	1	0	2	0	0	3	0	1.0	2.3	A	A	0.86	0.99	D	E
9	Graham Access Rd. (NS) / Live Oak Av. (EW)	TS	0	1	0	0	0	0	0	2	d	1	2	0	16.8	2.4	B	A	0.63	0.71	B	C
10	Live Oak Ln. (NS) / Live Oak Av. (EW)	CSS	0	0	0	0	1	0	1	2	0	0	2	d	13.3	11.8	B	B	NA	NA	NA	NA
11	Rivergrade Rd. (NS) / Live Oak Av. (EW)	TS	1	1	1>	1	2	1	1	2	1	1	2	1	24.0	35.6	C	D	0.68	0.96	B	E
12	Stewart Av. (NS) / Live Oak Av. (EW)	TS	0	1	0	1	1	1	1	2	1	1	2	d	16.4	3.9	B	A	0.80	0.82	C	D
13	Baldwin Park Bl. - Dwy. 3 (NS) / Live Oak Av. (EW)	TS	2	1	0	1	1	0	1	2	d	1	2	1	16.2	27.9	B	C	0.69	0.76	B	C
14	Arrow Hwy. (NS) / Live Oak Av. (EW)																					
	- Without Improvements	TS	0	0	0	2	0	1	1	2	0	0	2	2>>	11.9	17.1	B	B	0.66	0.80	B	C
	- With Improvements[5]	TS	0	0	0	2	0	1	1	3	0	0	2	2>>	11.6	16.6	B	B	0.66	0.74	B	C
15	Maine Av. (NS) / Arrow Hwy. (EW)	TS	2	0	1	0	0	0	0	2	d	1	3	0	19.5	11.4	B	B	0.86	0.85	D	D
16	Arrow Hwy. (NS) / Dwy. 1 (EW)	TS	1	2	0	0	2	1	1	0	1	0	0	0	12.0	6.7	B	A	0.85	0.59	D	A
17	Arrow Hwy. (NS) / Dwy. 2 (EW)	CSS	0	2	0	0	2	1	0	1	0	0	0	0	22.8	31.0	C	D	NA	NA	NA	NA

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width (23') for right turning vehicles to travel outside the through lanes.
L = Left; T = Through; R = Right; 1>> = Free Right Turn Lane; d = Defacto Right Turn Lane; 1 = Improvement

[2] Delay and level of service (LOS) calculated using the following analysis software: Synchro 8. Per the 2010 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for worst individual movement (or movements sharing a single lane) are shown. "NA" value is shown for unsignalized ICU values.

[3] TS = Traffic Signal; CSS = Cross Street Stop.

[4] The Synchro v/c output results are discussed in the City of Irwindale Policy Guidelines for Traffic Impact Reports under Section B (page insert) and indicated that the v/c ratio results in the Synchro are based on ICU and should be presented in addition to delay information.

[5] 1 = Improvements consistent with the Irwindale Regional Shopping Center Traffic Impact Analysis (11/2014). Prepared by LSA Associates, Inc.

* BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

TABLE 5-5

INTERIM YEAR (2017)

INTERSECTION ANALYSIS SUMMARY COMPARISON

#	INTERSECTION	TRAFFIC Control[3]	INTERSECTION APPROACH LANES[1]												HCM[2]				ICU[4]				SIGNIFICANT IMPACT?[5]
			NORTH-BOUND			SOUTH-BOUND			EAST-BOUND			WEST-BOUND			DELAY (SECS.)		LEVEL OF SERVICE[2]		(V/C)		LEVEL OF SERVICE		
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM	AM	PM	AM	PM	
1	Live Oak Av. (West) (NS) / Arrow Hwy. (EW)																						
	• 2017 Without Project	TS	2	0	1>>	0	0	0	0	2	2>>	2	2	0	20.8	24.7	C	C	0.92	0.77	E	C	
	• 2017 With Project	TS	2	0	1>>	0	0	0	0	2	2>>	2	2	0	20.9	24.8	C	C	0.92	0.77	E	C	NO
2	Avenida Barbosa St. (NS) / Arrow Hwy. (EW)																						
	• 2017 Without Project	TS	0	0	0	2	0	1	1	2	0	0	2	1	21.5	15.8	C	B	0.93	0.65	E	B	
	• 2017 With Project	TS	0	0	0	2	0	1	1	2	0	0	2	1	23.8	16.4	C	B	0.93	0.65	E	B	NO
3	I-605 SB Off-Ramp (NS) / Arrow Hwy. (EW)																						
	• 2017 Without Project	TS	0	0	0	1	0	1>>	0	3	0	0	2	0	18.9	7.5	B	A	0.87	0.57	D	A	
	• 2017 With Project	TS	0	0	0	1	0	1>>	0	3	0	0	2	0	32.5	10.6	C	B	0.98	0.63	E	B	NO
4	I-605 NB On-Ramp/Live Oak Ln. (NS) / Arrow Hwy. (EW)																						
	• 2017 Without Project	CSS	0	0	1	0	0	0	0	2	d	0	2	1>>	11.1	16.5	B	C	NA	NA	NA	NA	
	• 2017 With Project	CSS	0	0	1	0	0	0	0	2	d	0	2	1>>	12.0	18.2	B	C	NA	NA	NA	NA	NO
5	Arrow Hwy. (NS) / Rivergrade Rd. (EW)																						
	• 2017 Without Project	TS	1	2	0	0	2	1	2	0	1	0	0	0	8.2	5.3	A	A	0.74	0.44	C	A	
	• 2017 With Project	TS	1	2	0	0	2	1	2	0	1	0	0	0	6.8	6.9	A	A	0.80	0.51	C	A	NO
6	Stewart Av. (NS) / Rivergrade Rd. (EW)																						
	• 2017 Without Project	TS	1	1	0	0	1	0	1	2	0	1	2	0	32.1	24.2	C	C	0.15	0.42	A	A	
	• 2017 With Project	TS	1	1	0	0	1	0	1	2	0	1	2	0	31.1	24.8	C	C	0.19	0.47	A	A	NO
7	I-605 SB On-Ramp (NS) / Live Oak Av. (EW)																						
	• 2017 Without Project	TS	0	0	0	0	0	0	0	2	1>>	1	2	0	5.1	12.3	A	B	0.60	0.96	A	E	
	• 2017 With Project	TS	0	0	0	0	0	0	0	2	1>>	1	2	0	5.5	15.2	A	B	0.67	0.92	B	E	NO

TABLE 5-5

INTERIM YEAR (2017)

INTERSECTION ANALYSIS SUMMARY COMPARISON

#	INTERSECTION	TRAFFIC Control[3]	INTERSECTION APPROACH LANES[1]												HCM[2]				ICU[4]				SIGNIFICANT IMPACT?[5]
			NORTH-BOUND			SOUTH-BOUND			EAST-BOUND			WEST-BOUND			DELAY (SECS.)		LEVEL OF SERVICE[2]		(V/C)		LEVEL OF SERVICE		
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM	AM	PM	AM	PM	
8	I-605 NB Off-Ramp (NS) / Live Oak Av. (EW)																						
	• 2017 Without Project	CSS	0	0	1	0	0	1	0	2	0	0	2	0	>80	>80	F	F	NA	NA	NA	NA	
	• 2017 With Project	CSS	0	0	1	0	0	1	0	2	0	0	2	0	>80	>80	F	F	NA	NA	NA	NA	YES
	- With Improvements	TS	0	0	2	--	--	1	0	2	0	0	3	0	1.0	2.3	A	A	0.86	0.99	D	E	NO
9	Graham Access Rd. (NS) / Live Oak Av. (EW)																						
	• 2017 Without Project	TS	0	1	0	0	0	0	0	2	d	1	2	0	16.2	2.3	B	A	0.59	0.72	A	C	
	• 2017 With Project	TS	0	1	0	0	0	0	0	2	d	1	2	0	16.8	2.4	B	A	0.63	0.71	B	C	NO
10	Live Oak Ln. (NS) / Live Oak Av. (EW)																						
	• 2017 Without Project	CSS	0	0	0	0	1	0	1	2	0	0	2	d	12.9	12.3	B	B	NA	NA	NA	NA	
	• 2017 With Project	CSS	0	0	0	0	1	0	1	2	0	0	2	d	13.3	11.8	B	B	NA	NA	NA	NA	NO
11	Rivergrade Rd. (NS) / Live Oak Av. (EW)																						
	• 2017 Without Project	TS	1	1	1>	1	2	1	1	2	1	1	2	1	19.6	33.8	B	C	0.64	0.95	B	E	
	• 2017 With Project	TS	1	1	1>	1	2	1	1	2	1	1	2	1	24.0	35.6	C	D	0.68	0.96	B	E	NO
12	Stewart Av. (NS) / Live Oak Av. (EW)																						
	• 2017 Without Project	TS	0	1	0	1	1	1	1	2	1	1	2	d	11.8	4.2	B	A	0.79	0.81	C	D	
	• 2017 With Project	TS	0	1	0	1	1	1	1	2	1	1	2	d	16.4	3.9	B	A	0.80	0.82	C	D	NO
13	Baldwin Park Bl. - Dwy. 3 (NS) / Live Oak Av. (EW)																						
	• 2017 Without Project	TS	2	0	1	0	0	0	0	2	d	1	2	0	11.7	21.0	B	C	0.60	0.70	A	B	
	• 2017 With Project	TS	2	1	0	1	1	0	1	2	d	1	2	1	16.2	27.9	B	C	0.69	0.76	B	C	NO

TABLE 5-5
INTERIM YEAR (2017)
INTERSECTION ANALYSIS SUMMARY COMPARISON

#	INTERSECTION	TRAFFIC Control[3]	INTERSECTION APPROACH LANES[1]												HCM[2]				ICU[4]				SIGNIFICANT IMPACT?[5]
			NORTH-BOUND			SOUTH-BOUND			EAST-BOUND			WEST-BOUND			DELAY (SECS.)		LEVEL OF SERVICE[2]		(V/C)		LEVEL OF SERVICE		
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM	AM	PM	AM	PM	
14	- Without Improvements																						
	• 2017 Without Project	TS	0	0	0	2	0	1	1	2	0	0	2	2>>	14.3	25.9	B	C	0.60	0.79	A	C	
	• 2017 With Project	TS	0	0	0	2	0	1	1	2	0	0	2	2>>	11.9	17.1	B	B	0.66	0.80	B	C	NO
15	Maine Av. (NS) / Arrow Hwy. (EW)																						
	• 2017 Without Project	TS	2	0	1	0	0	0	0	2	d	1	3	0	19.2	11.3	B	B	0.86	0.85	D	D	
	• 2017 With Project	TS	2	0	1	0	0	0	0	2	d	1	3	0	19.5	11.4	B	B	0.86	0.85	D	D	NO
16	Arrow Hwy. (NS) / Dwy. 1 (EW)																						
	• 2017 Without Project	-	DOES NOT EXIST												NA	NA	NA	NA	NA	NA	NA	NA	
	• 2017 With Project	TS	1	2	0	0	2	1	1	0	1	0	0	0	12.0	6.7	B	A	0.85	0.59	D	A	NO
17	Arrow Hwy. (NS) / Dwy. 2 (EW)																						
	• 2017 Without Project	-	DOES NOT EXIST												NA	NA	NA	NA	NA	NA	NA	NA	
	• 2017 With Project	CSS	0	2	0	0	2	1	0	1	0	0	0	0	22.8	31.0	C	D	NA	NA	NA	NA	NO

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width (23') for right turning vehicles to travel outside the through lanes.
L = Left; T = Through; R = Right; 1>> = Free Right Turn Lane; d = Defacto Right Turn Lane; 1 = Improvement

[2] Delay and level of service calculated using the following analysis software: Synchro 8. Per the 2010 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for worst individual movement (or movements sharing a single lane) are shown. "NA" value is shown for unsignalized ICU values.

[3] TS = Traffic Signal; CSS = Cross Street Stop.

[4] The Synchro v/c output results are discussed in the City of Irwindale Policy Guidelines for Traffic Impact Reports under Section B (page insert) and indicated that the v/c ratio results in the Synchro are based on ICU and should be presented in addition to delay information.

[5] Per City of Irwindale traffic study guidelines, a significant impact is identified if one of the following criterias are met:
- For Signalized Intersections
  - When an intersection operates at acceptable LOS ("D" or better) for baseline conditions and the addition of project results in unacceptable LOS ("E" or "F").
  - When a State Highway intersection operates at acceptable LOS ("E" or better) for baseline conditions and the addition of project results in unacceptable LOS "F".
  - When an intersection operates at LOS "F" for baseline conditions and the project adds more than 50 peak hour project trips .
- For Unsignalized Intersections
  - When the minor stop-contolled approach operates at LOS "F" and does not have acceptable LOS in terms of average delay, and the addition of project increases the total control delay to more than 4.0 hours for single lane approach and 5.0 hours for multilane approach.

* BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

TABLE 5-6

LONG RANGE (2035) WITHOUT PROJECT CONDITIONS
INTERSECTIONS ANALYSIS SUMMARY

#	INTERSECTION	TRAFFIC CONTROL[3]	INTERSECTION APPROACH LANES[1]												HCM[2]				ICU[4]			
			NORTH-BOUND			SOUTH-BOUND			EAST-BOUND			WEST-BOUND			DELAY (SECS.)		LEVEL OF SERVICE		(V/C)		LEVEL OF SERVICE	
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM	AM	PM	AM	PM
1	Live Oak Av. (West) (NS) / Arrow Hwy. (EW)	TS	2	0	1>>	0	0	0	0	2	2>>	2	2	0	25.1	26.3	C	C	0.99	0.82	E	D
2	Avenida Barbosa St. (NS) / Arrow Hwy. (EW)																					
	- Without Improvements	TS	0	0	0	2	0	1	1	2	0	0	2	1	30.1	16.6	C	B	1.00	0.70	E	B
	- With Improvements[5]	TS	0	0	0	2	0	1	2	2	0	0	2	1	20.1	14.7	C	B	0.89	0.63	D	B
3	I-605 SB Off-Ramp (NS) / Arrow Hwy. (EW)	TS	0	0	0	1	0	1>>	0	3	0	0	2	0	24.7	7.8	C	A	0.94	0.57	E	A
4	I-605 NB On-Ramp/Live Oak Ln. (NS) / Arrow Hwy. (EW)	CSS	0	0	1	0	0	0	0	2	d	0	2	1>>	11.4	17.8	B	C	NA	NA	NA	NA
5	Arrow Hwy. (NS) / Rivergrade Rd. (EW)	TS	1	2	0	0	2	1	2	0	1	0	0	0	9.4	5.5	A	A	0.80	0.47	C	A
6	Stewart Av. (NS) / Rivergrade Rd. (EW)	TS	1	1	0	0	1	0	1	2	0	1	2	0	31.5	24.2	C	C	0.16	0.44	A	A
7	I-605 SB On-Ramp (NS) / Live Oak Av. (EW)	TS	0	0	0	0	0	0	0	2	1>>	1	2	0	5.3	15.0	A	B	0.65	0.96	B	E
8	I-605 NB Off-Ramp (NS) / Live Oak Av. (EW)																					
	- Without Improvements	CSS	0	0	1	0	0	1	0	2	0	0	2	0	>80	>80	F	F	NA	NA	NA	NA
	- With Improvements	TS	0	0	2	--	--	1	0	2	0	0	3	0	1.0	8.1	A	A	0.90	0.98	D	E
9	Graham Access Rd. (NS) / Live Oak Av. (EW)	TS	0	1	0	0	0	0	0	2	d	1	2	0	17.6	2.5	B	A	0.64	0.72	B	C
10	Live Oak Ln. (NS) / Live Oak Av. (EW)	CSS	0	0	0	0	1	0	1	2	0	0	2	d	13.7	11.9	B	B	NA	NA	NA	NA
11	Rivergrade Rd. (NS) / Live Oak Av. (EW)	TS	1	1	1>	1	2	1	1	2	1	1	2	1	19.9	46.5	B	D	0.69	0.96	B	E
12	Stewart Av. (NS) / Live Oak Av. (EW)	TS	0	1	0	1	1	1	1	2	1	1	2	d	13.8	4.5	B	A	0.85	0.88	D	D
13	Baldwin Park Bl. - Dwy. 3 (NS) / Live Oak Av. (EW)	TS	2	0	1	0	0	0	0	2	d	1	2	0	13.1	22.3	B	C	0.65	0.76	B	C
14	Arrow Hwy. (NS) / Live Oak Av. (EW)																					
	- Without Improvements	TS	0	0	0	2	0	1	1	2	0	0	2	2>>	15.2	28.4	B	C	0.76	0.85	C	D
	- With Improvements[5]	TS	0	0	0	2	0	1	1	3	0	0	2	2>>	11.9	20.8	B	C	0.76	0.80	C	C
15	Maine Av. (NS) / Arrow Hwy. (EW)	TS	2	0	1	0	0	0	0	2	d	1	3	0	22.6	13.0	C	B	0.93	0.92	E	E
16	Arrow Hwy. (NS) / Dwy. 1 (EW)	-	DOES NOT EXIST												NA	NA	NA	NA	NA	NA	NA	NA
17	Arrow Hwy. (NS) / Dwy. 2 (EW)	-	DOES NOT EXIST												NA	NA	NA	NA	NA	NA	NA	NA

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width (23') for right turning vehicles to travel outside the through lanes.
L = Left; T = Through; R = Right; 1>> = Free Right Turn Lane; d = Defacto Right Turn Lane; 1 = Improvement

[2] Delay and level of service (LOS) calculated using the following analysis software: Synchro 8. Per the 2010 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for worst individual movement (or movements sharing a single lane) are shown. "NA" value is shown for unsignalized ICU values.

[3] TS = Traffic Signal; CSS = Cross Street Stop.

[4] The Synchro v/c output results are discussed in the City of Irwindale Policy Guidelines for Traffic Impact Reports under Section B (page insert) and indicated that the v/c ratio results in the Synchro are based on ICU and should be presented in addition to delay information.

[5] 1 = Improvements consistent with the Irwindale Regional Shopping Center Traffic Impact Analysis (11/2014). Prepared by LSA Associates, Inc.

* BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

It should be noted that even though the ICU results for the intersections of Live Oak Avenue (West) / Arrow Highway (#1), Avenida Barbosa Street / Arrow Highway (#2), I-605 SB off-ramp / Arrow Highway (#3), I-605 SB On-Ramp / Live Oak Avenue (#7), and Rivergrade Road / Live Oak Avenue (#11), Maine Avenue / Arrow Highway (#15) indicate that these intersections operates at LOS "E" during peak hours under Long Range (2035) Without Project conditions, the HCM results show that these intersections operates at acceptable LOS (LOS "D" or better). The HCM results present a more accurate representation of the intersection operational level.

5.1.5 LONG RANGE (2035) WITH PROJECT

HCM delay and ICU calculations for Long Range (2035) With Project Buildout conditions are shown in Table 5-7. The operation analysis worksheets are included in Appendix "N". Table 5-7 shows the operations analysis at the study area intersections with and without improvements. For Long Range (2035) With Project conditions, the following intersection is projected to operate at unacceptable level of service (in addition to the locations identified for Long Range (2035) Without Project conditions) during the peak hours, with existing geometry:

ID	Intersection Location	Jurisdiction
3	I-605 SB Off-Ramp (NS) / Arrow Hwy. (EW)	Caltrans

Similar to Long Range (2035) Without Project Conditions, the ICU results for the intersections of Live Oak Avenue (West) / Arrow Highway (#1), Avenida Barbosa Street / Arrow Highway (#2), I-605 SB off-ramp / Arrow Highway (#3), I-605 SB On-Ramp / Live Oak Avenue (#7), and Rivergrade Road / Live Oak Avenue (#11), Maine Avenue / Arrow Highway (#15) operates at LOS "E" or worse during peak hours under Long Range (2035) With Project conditions. However, the HCM results show that the intersection operates at acceptable LOS (LOS "D" or better). The HCM results present a more accurate representation of the intersection operational level.

Table 5-8 summarizes the intersection analysis operations for Long Range (2035) Without Project and Long Range (2035) With Project Buildout conditions. Table 5-8 also identifies any "significant impacts" (as defined in the City of Irwindale traffic study guidelines). As shown on Table 5-8, significant impacts are projected for the following locations:

ID	Intersection Location	Jurisdiction
3	I-605 SB Off-Ramp (NS) / Arrow Hwy. (EW)	Caltrans
8	I-605 NB Off-Ramp (NS) / Live Oak Av. (EW)	Caltrans

As shown in Table 5-6 and Table 5-7, the following improvements are necessary to reduce the Project's proportionate increase in delay to pre-project levels or better, thus reducing the Project's impact to *"less-than-significant":*

I-605 NB Off-Ramp (NS) / Live Oak Avenue (#8)

- Install a traffic signal.
- Construct a second northbound right turn lane.
- Provide a third westbound through lane by modifying the existing raised median.

TABLE 5-7

LONG RANGE (2035) WITH PROJECT CONDITIONS
INTERSECTIONS ANALYSIS SUMMARY

#	INTERSECTION	TRAFFIC CONTROL[3]	INTERSECTION APPROACH LANES[1]												HCM[2]				ICU[4]			
			NORTH-BOUND			SOUTH-BOUND			EAST-BOUND			WEST-BOUND			DELAY (SECS.)		LEVEL OF SERVICE		(V/C)		LEVEL OF SERVICE	
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM	AM	PM	AM	PM
1	Live Oak Av. (West) (NS) / Arrow Hwy. (EW)	TS	2	0	1>>	0	0	0	0	2	2>>	2	2	0	25.4	26.4	C	C	1.00	0.83	E	D
2	Avenida Barbosa St. (NS) / Arrow Hwy. (EW)																					
	- Without Improvements	TS	0	0	0	2	0	1	1	2	0	0	2	1	36.5	16.7	D	B	1.00	0.70	E	B
	- With Improvements[5]	TS	0	0	0	2	0	1	2	2	0	0	2	1	20.5	14.7	C	B	0.90	0.63	D	B
3	I-605 SB Off-Ramp (NS) / Arrow Hwy. (EW)																					
	- Without Improvements	TS	0	0	0	1	0	1>>	0	3	0	0	2	0	--[6]	11.0	F	B	1.05	0.67	F	B
	- With Improvements	TS	0	0	0	2	0	1>>	0	3	0	0	2	0	17.7	8.6	B	A	0.86	0.52	D	A
4	I-605 NB On-Ramp/Live Oak Ln. (NS) / Arrow Hwy. (EW)	CSS	0	0	1	0	0	0	0	2	d	0	2	1>>	12.3	19.8	B	C	NA	NA	NA	NA
5	Arrow Hwy. (NS) / Rivergrade Rd. (EW)	TS	1	2	0	0	2	1	2	0	1	0	0	0	7.6	7.1	A	A	0.86	0.58	D	A
6	Stewart Av. (NS) / Rivergrade Rd. (EW)	TS	1	1	0	0	1	0	1	2	0	1	2	0	30.3	24.6	C	C	0.20	0.51	A	A
7	I-605 SB On-Ramp (NS) / Live Oak Av. (EW)	TS	0	0	0	0	0	0	0	2	1>>	1	2	0	5.9	21.0	A	C	0.72	1.00	C	E
8	I-605 NB Off-Ramp (NS) / Live Oak Av. (EW)																					
	- Without Improvements	CSS	0	0	1	0	0	1	0	2	0	0	2	0	>80	>80	F	F	NA	NA	NA	NA
	- With Improvements	TS	0	0	2	--	--	1	0	2	0	0	3	0	0.9	6.6	A	A	0.92	1.00	E	E
9	Graham Access Rd. (NS) / Live Oak Av. (EW)	TS	0	1	0	0	0	0	0	2	d	1	2	0	19.6	2.7	B	A	0.68	0.84	B	D
10	Live Oak Ln. (NS) / Live Oak Av. (EW)	CSS	0	0	0	0	1	0	1	2	0	0	2	d	14.4	12.5	B	B	NA	NA	NA	NA
11	Rivergrade Rd. (NS) / Live Oak Av. (EW)	TS	1	1	1>	1	2	1	1	2	1	1	2	1	23.8	52.1	C	D	0.74	0.98	C	E
12	Stewart Av. (NS) / Live Oak Av. (EW)	TS	0	1	0	1	1	1	1	2	1	1	2	d	26.3	4.2	C	A	0.86	0.88	D	D
13	Baldwin Park Bl. - Dwy. 3 (NS) / Live Oak Av. (EW)	TS	2	1	0	1	1	0	1	2	d	1	2	1	18.1	49.6	B	D	0.74	0.82	C	D
14	Arrow Hwy. (NS) / Live Oak Av. (EW)																					
	- Without Improvements	TS	0	0	0	2	0	1	1	2	0	0	2	2>>	12.6	18.6	B	B	0.84	0.86	D	D
	- With Improvements[5]	TS	0	0	0	2	0	1	1	3	0	0	2	2>>	12.5	18.1	B	B	0.84	0.80	D	C
15	Maine Av. (NS) / Arrow Hwy. (EW)	TS	2	0	1	0	0	0	0	2	d	1	3	0	23.2	13.2	C	B	0.93	0.93	E	E
16	Arrow Hwy. (NS) / Dwy. 1 (EW)	TS	1	2	0	0	2	1	1	0	1	0	0	0	13.7	6.8	B	A	0.90	0.62	D	B
17	Arrow Hwy. (NS) / Dwy. 2 (EW)	CSS	0	2	0	0	2	1	0	1	0	0	0	0	24.6	34.6	C	D	NA	NA	NA	NA

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width (23') for right turning vehicles to travel outside the through lanes.
L = Left; T = Through; R = Right; 1>> = Free Right Turn Lane; d = Defacto Right Turn Lane; 1 = Improvement

[2] Delay and level of service (LOS) calculated using the following analysis software: Synchro 8. Per the 2010 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for worst individual movement (or movements sharing a single lane) are shown. "NA" value is shown for unsignalized ICU values.

[3] TS = Traffic Signal; CSS = Cross Street Stop.

[4] The Synchro v/c output results are discussed in the City of Irwindale Policy Guidelines for Traffic Impact Reports under Section B (page insert) and indicated that the v/c ratio results in the Synchro are based on ICU and should be presented in addition to delay information.

[5] 1 = Improvements consistent with the Irwindale Regional Shopping Center Traffic Impact Analysis (11/2014). Prepared by LSA Associates, Inc.

[5] -- = Delay High or V/C Ratio exceeding 1.0, Intersection Unstable, Level of Service "F".

* BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

TABLE 5-8

LONG RANGE (2035)
INTERSECTION ANALYSIS SUMMARY COMPARISON

#	INTERSECTION	TRAFFIC Control[3]	INTERSECTION APPROACH LANES[1]												HCM[2]				ICU[4]				SIGNIFICANT IMPACT?[5]
			NORTH-BOUND			SOUTH-BOUND			EAST-BOUND			WEST-BOUND			DELAY (SECS.)		LEVEL OF SERVICE[2]		(V/C)		LEVEL OF SERVICE		
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM	AM	PM	AM	PM	
1	Live Oak Av. (West) (NS) / Arrow Hwy. (EW)																						
	• 2035 Without Project	TS	2	0	1>>	0	0	0	0	2	2>>	2	2	0	25.1	26.3	C	C	0.99	0.82	E	D	
	• 2035 With Project	TS	2	0	1>>	0	0	0	0	2	2>>	2	2	0	25.4	26.4	C	C	1.00	0.83	E	D	NO
2	- Without Improvements																						
	• 2035 Without Project	TS	0	0	0	2	0	1	1	2	0	0	2	1	30.1	16.6	C	B	1.00	0.70	E	B	
	• 2035 With Project	TS	0	0	0	2	0	1	1	2	0	0	2	1	36.5	16.7	D	B	1.00	0.70	E	B	NO
3	I-605 SB Off-Ramp (NS) / Arrow Hwy. (EW)																						
	• 2035 Without Project	TS	0	0	0	1	0	1>>	0	3	0	0	2	0	24.7	7.8	C	A	0.94	0.57	E	A	
	• 2035 With Project	TS	0	0	0	1	0	1>>	0	3	0	0	2	0	--[6]	11.0	F	B	1.05	0.67	F	B	YES
	- With Improvements	TS	0	0	0	2	0	1>>	0	3	0	0	2	0	17.7	8.6	B	A	0.86	0.52	D	A	NO
4	I-605 NB On-Ramp/Live Oak Ln. (NS) / Arrow Hwy. (EW)																						
	• 2035 Without Project	CSS	0	0	1	0	0	0	0	2	d	0	2	1>>	11.4	17.8	B	C	NA	NA	NA	NA	
	• 2035 With Project	CSS	0	0	1	0	0	0	0	2	d	0	2	1>>	12.3	19.8	B	C	NA	NA	NA	NA	NO
5	Arrow Hwy. (NS) / Rivergrade Rd. (EW)																						
	• 2035 Without Project	TS	1	2	0	0	2	1	2	0	1	0	0	0	9.4	5.5	A	A	0.80	0.47	C	A	
	• 2035 With Project	TS	1	2	0	0	2	1	2	0	1	0	0	0	7.6	7.1	A	A	0.86	0.58	D	A	NO
6	Stewart Av. (NS) / Rivergrade Rd. (EW)																						
	• 2035 Without Project	TS	1	1	0	0	1	0	1	2	0	1	2	0	31.5	24.2	C	C	0.16	0.44	A	A	
	• 2035 With Project	TS	1	1	0	0	1	0	1	2	0	1	2	0	30.3	24.6	C	C	0.20	0.51	A	A	NO
7	I-605 SB On-Ramp (NS) / Live Oak Av. (EW)																						
	• 2035 Without Project	TS	0	0	0	0	0	0	0	2	1>>	1	2	0	5.3	15.0	A	B	0.65	0.96	B	E	
	• 2035 With Project	TS	0	0	0	0	0	0	0	2	1>>	1	2	0	5.9	21.0	A	C	0.72	1.00	C	E	NO

TABLE 5-8
LONG RANGE (2035)
INTERSECTION ANALYSIS SUMMARY COMPARISON

#	INTERSECTION	TRAFFIC Control[3]	INTERSECTION APPROACH LANES[1]												HCM[2]				ICU[4]				SIGNIFICANT IMPACT?[5]
			NORTH-BOUND			SOUTH-BOUND			EAST-BOUND			WEST-BOUND			DELAY (SECS.)		LEVEL OF SERVICE[2]		(V/C)		LEVEL OF SERVICE		
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM	AM	PM	AM	PM	
8	I-605 NB Off-Ramp (NS) / Live Oak Av. (EW)																						
	• 2035 Without Project	CSS	0	0	1	0	0	1	0	2	0	0	2	0	>80	>80	F	F	NA	NA	NA	NA	
	• 2035 With Project	CSS	0	0	1	0	0	1	0	2	0	0	2	0	>80	>80	F	F	NA	NA	NA	NA	YES
	- With Improvements	TS	0	0	2	--	--	1	0	2	0	0	3	0	0.9	6.6	A	A	0.92	1.00	E	E	NO
9	Graham Access Rd. (NS) / Live Oak Av. (EW)																						
	• 2035 Without Project	TS	0	1	0	0	0	0	0	2	d	1	2	0	17.6	2.5	B	A	0.64	0.72	B	C	
	• 2035 With Project	TS	0	1	0	0	0	0	0	2	d	1	2	0	19.6	2.7	B	A	0.68	0.84	B	D	NO
10	Live Oak Ln. (NS) / Live Oak Av. (EW)																						
	• 2035 Without Project	CSS	0	0	0	0	1	0	1	2	0	0	2	d	13.7	11.9	B	B	NA	NA	NA	NA	
	• 2035 With Project	CSS	0	0	0	0	1	0	1	2	0	0	2	d	14.4	12.5	B	B	NA	NA	NA	NA	NO
11	Rivergrade Rd. (NS) / Live Oak Av. (EW)																						
	• 2035 Without Project	TS	1	1	1>	1	2	1	1	2	1	1	2	1	19.9	46.5	B	D	0.69	0.96	B	E	
	• 2035 With Project	TS	1	1	1>	1	2	1	1	2	1	1	2	1	23.8	52.1	C	D	0.74	0.98	C	E	NO
12	Stewart Av. (NS) / Live Oak Av. (EW)																						
	• 2035 Without Project	TS	0	1	0	1	1	1	1	2	1	1	2	d	13.8	4.5	B	A	0.85	0.88	D	D	
	• 2035 With Project	TS	0	1	0	1	1	1	1	2	1	1	2	d	26.3	4.2	C	A	0.86	0.88	D	D	NO
13	Baldwin Park Bl. - Dwy. 3 (NS) / Live Oak Av. (EW)																						
	• 2035 Without Project	TS	2	0	1	0	0	0	0	2	d	1	2	0	13.1	22.3	B	C	0.65	0.76	B	C	
	• 2035 With Project	TS	2	1	0	1	1	0	1	2	d	1	2	1	18.1	49.6	B	D	0.74	0.82	C	D	NO

TABLE 5-8

LONG RANGE (2035)
INTERSECTION ANALYSIS SUMMARY COMPARISON

#	INTERSECTION	TRAFFIC Control[3]	INTERSECTION APPROACH LANES[1]												HCM[2]				ICU[4]				SIGNIFICANT IMPACT?[5]
			NORTH-BOUND			SOUTH-BOUND			EAST-BOUND			WEST-BOUND			DELAY (SECS.)		LEVEL OF SERVICE[2]		(V/C)		LEVEL OF SERVICE		
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM	AM	PM	AM	PM	
14	- Without Improvements																						
	• 2035 Without Project	TS	0	0	0	2	0	1	1	2	0	0	2	2>>	15.2	28.4	B	C	0.76	0.85	C	D	
	• 2035 With Project	TS	0	0	0	2	0	1	1	2	0	0	2	2>>	12.6	18.6	B	B	0.84	0.86	D	D	NO
15	Maine Av. (NS) / Arrow Hwy. (EW)																						
	• 2035 Without Project	TS	2	0	1	0	0	0	0	2	d	1	3	0	22.6	13.0	C	B	0.93	0.92	E	E	
	• 2035 With Project	TS	2	0	1	0	0	0	0	2	d	1	3	0	23.2	13.2	C	B	0.93	0.93	E	E	NO
16	Arrow Hwy. (NS) / Dwy. 1 (EW)																						
	• 2035 Without Project	-	DOES NOT EXIST												NA	NA	NA	NA	NA	NA	NA	NA	
	• 2035 With Project	TS	1	2	0	0	2	1	1	0	1	0	0	0	13.7	6.8	B	A	0.90	0.62	D	B	NO
17	Arrow Hwy. (NS) / Dwy. 2 (EW)																						
	• 2035 Without Project	-	DOES NOT EXIST												NA	NA	NA	NA	NA	NA	NA	NA	
	• 2035 With Project	CSS	0	2	0	0	2	1	0	1	0	0	0	0	24.6	34.6	C	D	NA	NA	NA	NA	NO

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width (23') for right turning vehicles to travel outside the through lanes.
L = Left; T = Through; R = Right; 1>> = Free Right Turn Lane; d = Defacto Right Turn Lane; 1 = Improvement

[2] Delay and level of service calculated using the following analysis software: Synchro 8. Per the 2010 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for worst individual movement (or movements sharing a single lane) are shown. "NA" value is shown for unsignalized ICU values.

[3] TS = Traffic Signal; CSS = Cross Street Stop.

[4] The Synchro v/c output results are discussed in the City of Irwindale Policy Guidelines for Traffic Impact Reports under Section B (page insert) and indicated that the v/c ratio results in the Synchro are based on ICU and should be presented in addition to delay information.

[5] Per City of Irwindale traffic study guidelines, a significant impact is identified if one of the following criterias are met:
- For Signalized Intersections
  - When an intersection operates at acceptable LOS ("D" or better) for baseline conditions and the addition of project results in unacceptable LOS ("E" or "F").
  - When a State Highway intersection operates at acceptable LOS ("E" or better) for baseline conditions and the addition of project results in unacceptable LOS "F".
  - When an intersection operates at LOS "F" for baseline conditions and the project adds more than 50 peak hour project trips .
- For Unsignalized Intersections
  - When the minor stop-contolled approach operates at LOS "F" and does not have acceptable LOS in terms of average delay, and the addition of project increases the total control delay to more than 4.0 hours for single lane approach and 5.0 hours for multilane approach.

[6] -- = Delay High or V/C Ratio exceeding 1.0, Intersection Unstable, Level of Service "F".

* BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

I-605 SB Off-Ramp (NS) / Arrow Highway (EW) (#3)

- Construct a 2nd southbound left turn lane.

Similar to Long Range (2035) Without Project Conditions, the ICU results show that the intersection of I-605 NB Off-Ramp / Live Oak Avenue (#8) with improvements operates at LOS "E" during peak hours. However, the HCM results show that this intersection operates at acceptable LOS (LOS "D" or better). The HCM results present a more accurate representation of the intersection operational level.

It should be noted that the recommended interchange improvements I-605 Freeway Northbound Off-Ramp at Live Oak Avenue and Southbound Off-Ramp at Arrow Highway are generally consistent with the *Traffic Study Report for I-605/Live Oak Avenue/Arrow Highway Interchanges (December 14, 2012)*, prepared by Advantec Consulting Engineers. Therefore, Caltrans approval can reasonably be expected.

6.0 FREEWAY MAINLINE AND RAMP ANALYSIS

The freeway mainline and ramp merge / diverge analysis presented in this chapter of the report has been performed using the HCS computer program. Per Caltrans request, I-210 interchange at Irwindale Avenue is included in the analysis. The peak hour volumes at the I-605 Freeway were presented on Exhibits 2-H, 2-I, 3-C, 3-D, 4-B, 4-C, 4-F, 4-G, 4-I, 4-J, 4-L, 4-M, 4-O, 4-P, 4-R, and 4-S. I-210 freeway peak hour volumes are presented in Exhibit 6-A.

6.1 EXISTING PLUS PROJECT

The Existing Plus Project freeway mainline analysis results are presented on Table 6-1. As shown on Table 6-1, the following study area freeway mainline segments identified previously under existing conditions are anticipated to continue to operate at unacceptable LOS (LOS "E" or worse) with the existing 4-lanes in each direction during the AM peak hour and PM peak hours for Existing Plus Project conditions.

ID	Freeway Mainline Segments
8	I-210 Westbound, Immediately East of Irwindale Avenue Westbound Off-Ramp
10	I-210 Westbound, Immediately West of Irwindale Avenue Westbound On-Ramp
11	I-210 Eastbound, Immediately West of Irwindale Avenue Eastbound Off-Ramp

The Existing Plus Project freeway ramp analysis results are presented on Table 6-2. As shown on Table 6-2, the following study area freeway ramp location is anticipated to continue to operate at unacceptable level of service (LOS "E" or worse) during the peak hours, with existing geometry:

ID	Freeway Merge/Diverge Ramp Junctions
6	I-210 Westbound - Off-Ramp at Irwindale Avenue (Diverge)

The queuing analysis results are presented in Table 6-3. Vehicular queues appear to clear in a reasonable and timely fashion throughout the network under Existing plus Project traffic conditions.

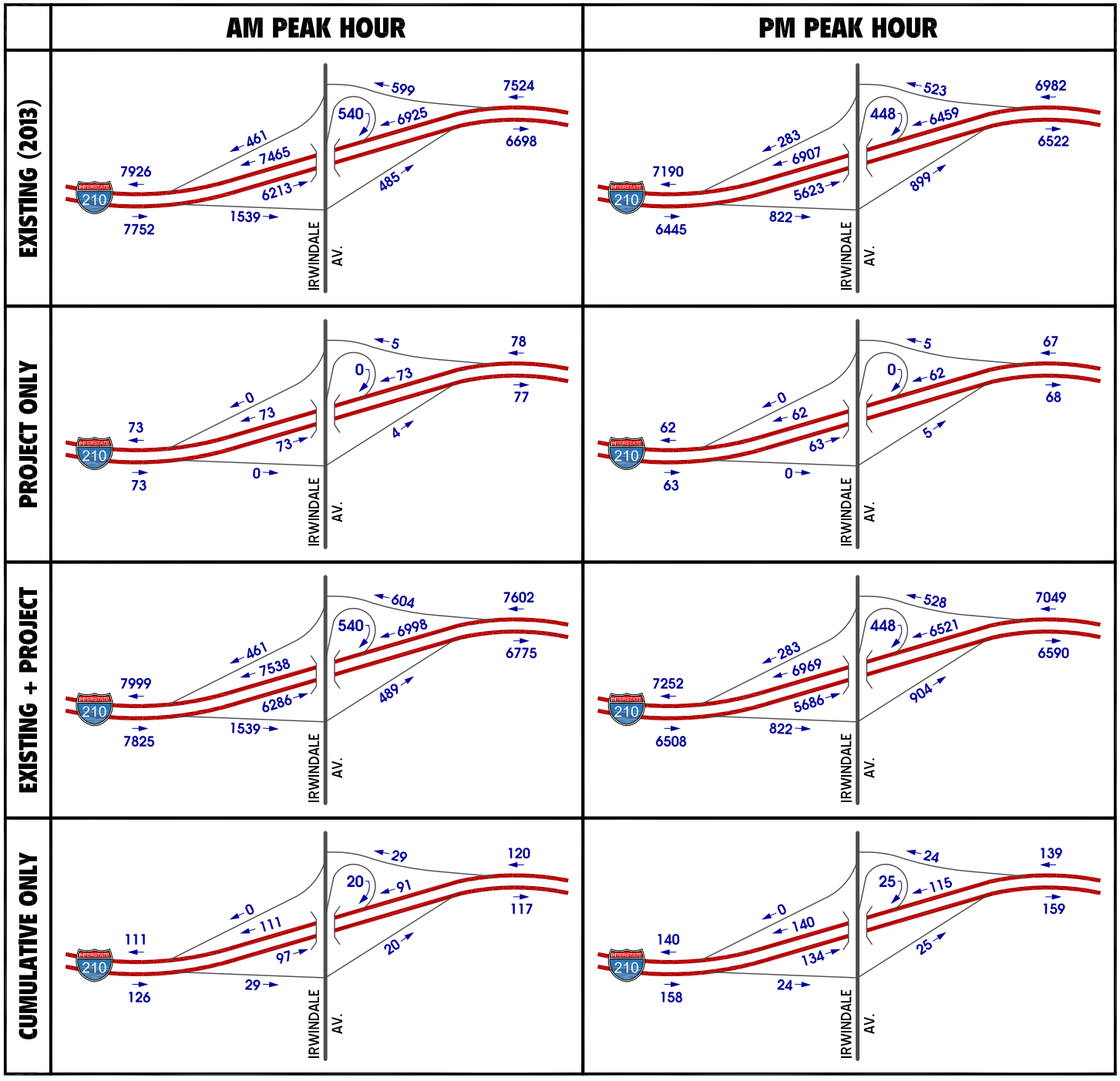
The freeway mainline, ramp, and queuing analysis calculation worksheets for Existing Plus Project conditions are included in Appendix "O".

6.2 INTERIM YEAR (2017) WITHOUT PROJECT

The Interim Year (2017) Without Project freeway mainline analysis results are presented on Table 6-4. As shown on Table 6-4, the following study area freeway mainline segments are anticipated to continue to operate at unacceptable level of service (LOS "E" or worse) during the peak hours, with existing geometry:

ID	Freeway Mainline Segments
8	I-210 Westbound, Immediately East of Irwindale Avenue Westbound Off-Ramp
10	I-210 Westbound, Immediately West of Irwindale Avenue Westbound On-Ramp
11	I-210 Eastbound, Immediately West of Irwindale Avenue Eastbound Off-Ramp

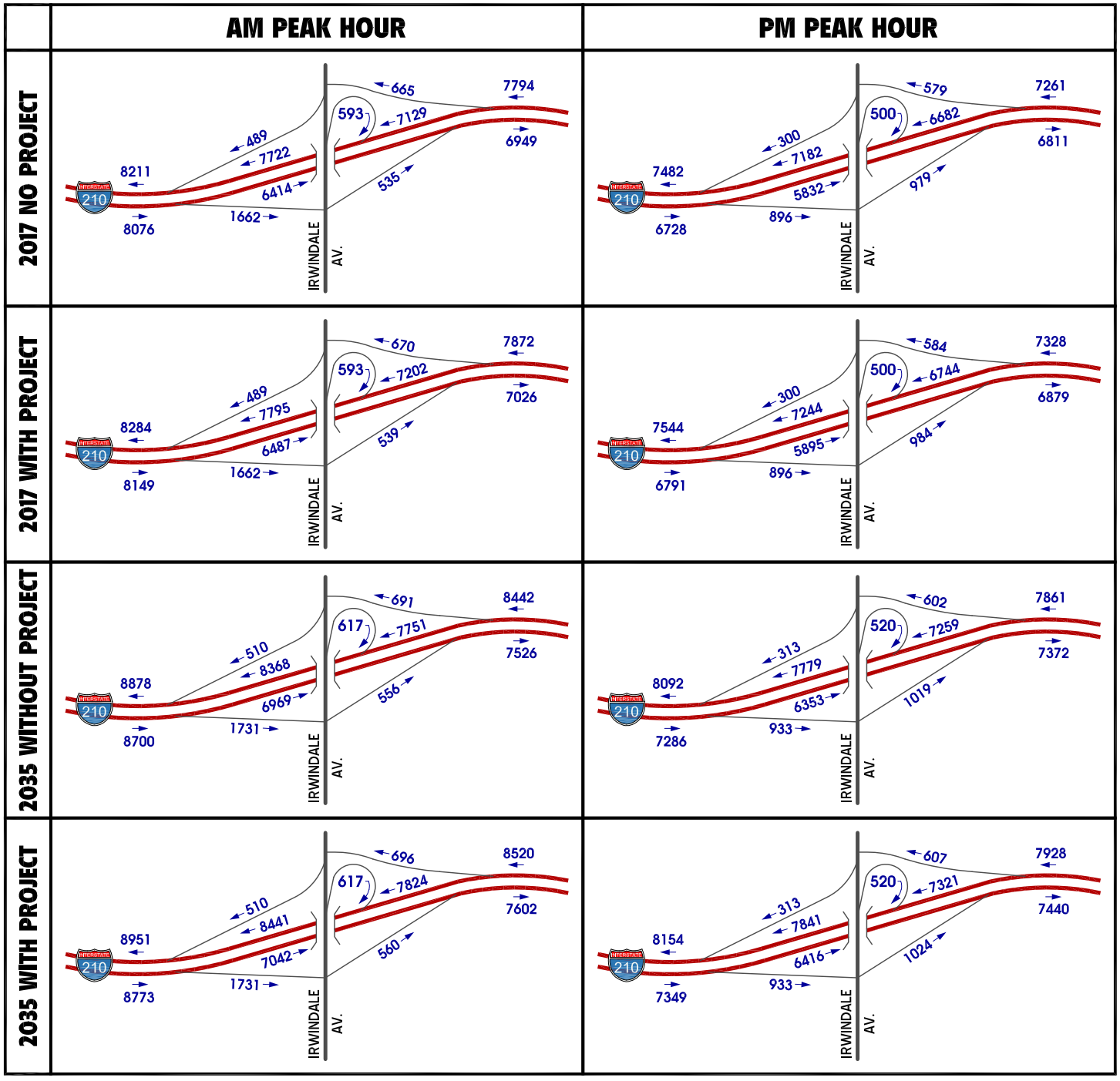
I-210 / IRWINDALE AVENUE INTERCHANGE
FREEWAY AND RAMP PEAK HOUR VOLUMES



NOTE: *AS MENTIONED IN SECTION 3.2 OF THIS TRAFFIC STUDY, FREEWAY MAINLINE VOLUMES ARE ACTUAL VEHICLES (AS OPPOSED TO PASSENGER-CAR-EQUIVALENT VOLUMES) AND A 7% TRUCK PERCENTAGE HAS BEEN UTILIZED IN THE BASIC FREEWAY SEGMENT ANALYSIS.*

N

I-210 / IRWINDALE AVENUE INTERCHANGE
FREEWAY AND RAMP PEAK HOUR VOLUMES



NOTE: *AS MENTIONED IN SECTION 3.2 OF THIS TRAFFIC STUDY, FREEWAY MAINLINE VOLUMES ARE ACTUAL VEHICLES (AS OPPOSED TO PASSENGER-CAR-EQUIVALENT VOLUMES) AND A 7% TRUCK PERCENTAGE HAS BEEN UTILIZED IN THE BASIC FREEWAY SEGMENT ANALYSIS.*

N

TABLE 6-1

EXISTING PLUS PROJECT CONDITIONS
BASIC FREEWAY SEGMENT ANALYSIS SUMMARY

FREEWAY	DIRECTION	MAINLINE SEGMENT LOCATION	Lanes[1]	VOLUME		DENSITY[2]		LOS[3]	
				AM	PM	AM	PM	AM	PM
I-605 FREEWAY	NB	Immediately South of Live Oak Avenue	4	4,310	4,312	17.3	25.8	B	C
		Between Live Oak Avenue and Eastbound Arrow Highway Loop On Ramp	4	2,931	2,930	11.8	11.8	B	B
		Between Eastbound Arrow Highway Loop On Ramp and Westbound Arrow Highway On Ramp	4	3,228	3,037	13.0	12.2	B	B
		Immediately North of Westbound Arrow Highway On Ramp	4	3,686	3,500	14.8	14.1	B	B
	SB	Immediately North of Arrow Highway Off Ramps	4	4,878	4,672	19.7	18.8	C	C
		Between Arrow Highway Off Ramps and Live Oak On Ramps	4	3,825	3,946	15.4	15.9	B	B
		Immediately South of Live Oak On Ramps	4	5,235	5,617	21.3	23.1	C	C
I-210 FREEWAY	WB	Immediately East of Irwindale Avenue Westbound Off Ramp	4	7,602	7,049	35.8	31.5	E	D
		Between Irwindale Avenue Westbound Loop On Ramp and Irwindale Avenue Westbound Off Ramp	4	6,998	6,521	31.2	28.1	D	D
		Immediately West of Irwindale Avenue Westbound On Ramp	4	7,999	7,252	39.3	33.0	E	D
	EB	Immediately West of Irwindale Avenue Eastbound Off Ramp	4	7,825	6,508	37.7	28.0	E	D
		Between Irwindale Avenue Eastbound Off Ramp and Irwindale Avenue Eastbound OnRamp	4	6,286	5,686	26.7	23.5	D	C
		Immediately East of Irwindale Avenue Eastbound Off Ramp	4	6,775	6,590	29.7	28.5	D	D

[1] Number of lanes is in the specified direction and is based on existing conditions.

[2] Density is measured by passenger cars per mile per lane (pc/mi/ln).

[3] Level of service determined using HCS2010: Basic Freeway Segments software, Version 6.65

TABLE 6-2

EXISTING PLUS PROJECT CONDITIONS
FREEWAY RAMP JUNCTION MERGE/DIVERGE ANALYSIS

FREEWAY	DIRECTION	RAMP LOCATION	Lanes on Freeway[1]	VOLUME		DENSITY [2]		LOS [3]	
				AM	PM	AM	PM	AM	PM
I-605 FREEWAY	NB	NB Off Ramp at Live Oak Avenue	4	1,379	1,382	27.4	27.4	C	C
		NB Loop On Ramp for Eastbound Arrow Highway	4	297	107	13.7	12.2	B	B
		NB Direct On Ramp for Westbound Arrow Highway	4	458	463	15.9	15.2	B	B
	SB	SB Off Ramp at Arrow Highway	4	1,053	726	28.3	25.7	D	C
		SB On Ramp at Live Oak Avenue	4	1,410	1,671	25.8	28.3	C	D
I-210 FREEWAY	WB	WB Off Ramp at Irwindale Avenue	4	604	528	35.9	33.2	E	D
		WB Loop On Ramp at Irwindale Avenue	4	540	448	31.2	28.8	D	D
		WB Direct On Ramp at Irwindale Avenue	4	461	283	31.2	27.8	D	C
	EB	EB Off Ramp at Irwindale Avenue	4	1,539	822	22.9	17.7	C	B
		EB On Ramp at Irwindale Avenue	4	489	904	25.8	27.0	C	C

[1] Existing conditions for all study area merge/diverge locations consists of single lane on/off ramps.

[2] Density is measured by passenger cars per mile per lane (pc/mi/ln).

[3] Level of service determined using HCS2010 : Ramps and Ramp Junction software, Version 6.65

TABLE 6-3

EXISTING PLUS PROJECT CONDITIONS
INTERSECTION QUEUING ANALYSIS SUMMARY[1]

ID	Intersection	Turning Movement Lane	Existing Storage Length[2] (feet)	Minimum Recommended Storage Length[3] (feet)	95th Percentile Queue Length Per Lane (feet)		Acceptable?[4]	
					AM	PM	AM	PM
3	I-605 SB Off-Ramp (NS) / Arrow Hwy. (EW)	SBL	980	-	491	405	YES	YES
		EBT	1,300	-	152	275	YES	YES
		WBT	1,160	-	401	181	YES	YES
7	I-605 SB On-Ramp (NS) / Live Oak Av. (EW)	EBT	1,200	-	141	347	YES	YES
		WBL	350	-	203	271	YES	YES
		WBT	545	-	63	0	YES	YES
8	I-605 NB Off-Ramp (NS) / Live Oak Av. (EW)	NBR	835	-	572	492	YES	YES
		SBR Loop	1,560	-	438	444	YES	YES
		EBT	545	-	0	6	YES	YES
		WBT	545	-	26	58	YES	YES

[1] Queue length calculated using Synchro 8 with SimTraffic.

[2] Existing pocket length storage (for turning movements) or link distance (for through movements).

[3] Minimum recommended storage length needed to accommodate the anticipated 95th percentile queues.

[4] Storage Length is acceptable if the required queuing length is less than or equal to the storage length provided.

TABLE 6-4

INTERIM YEAR (2017) WITHOUT PROJECT CONDITIONS
BASIC FREEWAY SEGMENT ANALYSIS SUMMARY

FREEWAY	DIRECTION	MAINLINE SEGMENT LOCATION	Lanes[1]	VOLUME		DENSITY[2]		LOS[3]	
				AM	PM	AM	PM	AM	PM
I-605 FREEWAY	NB	Immediately South of Live Oak Avenue	4	4,596	4,666	18.5	18.8	C	C
		Between Live Oak Avenue and Eastbound Arrow Highway Loop On Ramp	4	3,177	3,252	12.8	13.1	B	B
		Between Eastbound Arrow Highway Loop On Ramp and Westbound Arrow Highway On Ramp	4	3,527	3,523	14.2	14.2	B	B
		Immediately North of Westbound Arrow Highway On Ramp	4	3,846	3,864	15.5	15.5	B	B
	SB	Immediately North of Arrow Highway Off Ramps	4	5,170	4,999	21.0	20.2	C	C
		Between Arrow Highway Off Ramps and Live Oak On Ramps	4	4,123	4,264	16.6	17.1	B	B
		Immediately South of Live Oak On Ramps	4	5,496	6,021	22.5	25.2	C	C
I-210 FREEWAY	WB	Immediately East of Irwindale Avenue Westbound Off Ramp	4	7,794	7,261	37.4	33.1	E	D
		Between Irwindale Avenue Westbound Loop On Ramp and Irwindale Avenue Westbound Off Ramp	4	7,129	6,682	32.1	29.1	D	D
		Immediately West of Irwindale Avenue Westbound On Ramp	4	8,211	7,482	41.4	34.8	E	D
	EB	Immediately West of Irwindale Avenue Eastbound Off Ramp	4	8,076	6,728	40.1	29.4	E	D
		Between Irwindale Avenue Eastbound Off Ramp and Irwindale Avenue Eastbound OnRamp	4	6,414	5,832	27.4	24.2	D	C
		Immediately East of Irwindale Avenue Eastbound Off Ramp	4	6,949	6,811	30.8	29.9	D	D

[1] Number of lanes is in the specified direction and is based on existing conditions.

[2] Density is measured by passenger cars per mile per lane (pc/mi/ln).

[3] Level of service determined using HCS2010: Basic Freeway Segments software, Version 6.65

The Interim Year (2017) Without Project freeway ramp analysis results are presented on Table 6-5. As shown on Table 6-5, the following study area freeway ramp location is anticipated to continue to operate at unacceptable level of service (LOS "E" or worse) during the peak hours, with existing geometry:

ID	Freeway Merge/Diverge Ramp Junctions
6	I-210 Westbound - Off-Ramp at Irwindale Avenue (Diverge)

The queuing analysis results are presented in Table 6-6. Vehicular queues appear to clear in a reasonable and timely fashion throughout the network under Interim Year (2017) Without Project traffic conditions.

The freeway mainline, ramp, and queuing analysis calculation worksheets for Interim Year (2017) Without Project conditions are included in Appendix "P".

6.3 INTERIM YEAR (2017) WITH PROJECT

The Interim Year (2017) With Project freeway mainline analysis results are presented on Table 6-7. As shown on Table 6-7, there are no new study area freeway mainline segments anticipated to operate at unacceptable level of service (LOS "E" or worse) during the peak hours, with existing geometry, in addition to the previously identified locations under Interim Year (2017) Without Project conditions.

The Interim Year (2017) With Project freeway ramp analysis results are presented on Table 6-8. As shown on Table 6-8, there are no new study area freeway ramp locations projected to operate at unacceptable level of service (LOS "E" or worse) during the peak hours, with existing geometry, in addition to the previously identified locations under Interim Year (2017) Without Project conditions.

The queuing analysis results are presented in Table 6-9. Vehicular queues appear to clear in a reasonable and timely fashion throughout the network under Interim Year (2017) With Project traffic conditions.

The freeway mainline, ramp, and queuing analysis calculation worksheets for Interim Year (2017) With Project conditions are included in Appendix "Q".

As the proposed project would contribute to the existing and forecasted deficient freeway segments, the project's contribution to these cumulative traffic impacts are considered cumulatively considerable.

Neither Caltrans nor the State has adopted a fee program that can ensure that locally-contributed impact fees will be tied to improvements to freeway mainlines, and only Caltrans has the jurisdiction over mainline improvements. Because Caltrans has exclusive control over state highway improvements, ensuring that fair share contributions to mainline improvements are actually part of a program tied to implementation of mitigation is within the jurisdiction of Caltrans. As such, the City of Irwindale may decide whether specific overriding economic, legal, social, technological, or other benefits of the project outweigh the unavoidable adverse cumulative traffic impacts associated with the project.

TABLE 6-5

INTERIM YEAR (2017) WITHOUT PROJECT CONDITIONS
FREEWAY RAMP JUNCTION MERGE/DIVERGE ANALYSIS

FREEWAY	DIRECTION	RAMP LOCATION	Lanes on Freeway[1]	VOLUME		DENSITY [2]		LOS [3]	
				AM	PM	AM	PM	AM	PM
I-605 FREEWAY	NB	NB Off Ramp at Live Oak Avenue	4	1,419	1,414	28.8	29.0	D	D
		NB Loop On Ramp for Eastbound Arrow Highway	4	350	271	15.0	14.7	B	B
		NB Direct On Ramp for Westbound Arrow Highway	4	319	341	15.8	16.0	B	B
	SB	SB Off Ramp at Arrow Highway	4	1,047	735	29.5	27.1	D	C
		SB On Ramp at Live Oak Avenue	4	1,373	1,757	26.5	30.1	C	D
I-210 FREEWAY	WB	WB Off Ramp at Irwindale Avenue	4	665	579	37.0	34.3	E	D
		WB Loop On Ramp at Irwindale Avenue	4	593	500	32.1	29.8	D	D
		WB Direct On Ramp at Irwindale Avenue	4	489	300	32.1	28.7	D	D
	EB	EB Off Ramp at Irwindale Avenue	4	1,662	896	24.4	18.6	C	B
		EB On Ramp at Irwindale Avenue	4	535	979	26.6	28.1	C	D

[1] Existing conditions for all study area merge/diverge locations consists of single lane on/off ramps.

[2] Density is measured by passenger cars per mile per lane (pc/mi/ln).

[3] Level of service determined using HCS2010 : Ramps and Ramp Junction software, Version 6.65

TABLE 6-6

INTERIM YEAR (2017) WITHOUT PROJECT CONDITIONS
INTERSECTION QUEUING ANALYSIS SUMMARY[1]

ID	Intersection	Turning Movement Lane	Existing Storage Length[2] (feet)	Minimum Recommended Storage Length[3] (feet)	95th Percentile Queue Length Per Lane (feet)		Acceptable?[4]	
					AM	PM	AM	PM
3	I-605 SB Off-Ramp (NS) / Arrow Hwy. (EW)	SBL	980	-	380	260	YES	YES
		EBT	1,300	-	114	180	YES	YES
		WBT	1,160	-	282	175	YES	YES
7	I-605 SB On-Ramp (NS) / Live Oak Av. (EW)	EBT	1,200	-	148	309	YES	YES
		WBL	350	-	163	240	YES	YES
		WBT	545	-	43	107	YES	YES
8	I-605 NB Off-Ramp (NS) / Live Oak Av. (EW)	NBR	835	-	539	520	YES	YES
		SBR Loop	1,560	-	395	387	YES	YES
		EBT	545	-	9	0	YES	YES
		WBT	545	-	90	62	YES	YES

[1] Queue length calculated using Synchro 8 with SimTraffic.

[2] Existing pocket length storage (for turning movements) or link distance (for through movements).

[3] Minimum recommended storage length needed to accommodate the anticipated 95th percentile queues.

[4] Storage Length is acceptable if the required queuing length is less than or equal to the storage length provided.

TABLE 6-7

INTERIM YEAR (2017) WITH PROJECT CONDITIONS
BASIC FREEWAY SEGMENT ANALYSIS SUMMARY

FREEWAY	DIRECTION	MAINLINE SEGMENT LOCATION	Lanes[1]	VOLUME		DENSITY[2]		LOS[3]	
				AM	PM	AM	PM	AM	PM
I-605 FREEWAY	NB	Immediately South of Live Oak Avenue	4	4,718	4,795	19.0	19.3	C	C
		Between Live Oak Avenue and Eastbound Arrow Highway Loop On Ramp	4	3,177	3,252	12.8	13.1	B	B
		Between Eastbound Arrow Highway Loop On Ramp and Westbound Arrow Highway On Ramp	4	3,527	3,523	14.2	14.2	B	B
		Immediately North of Westbound Arrow Highway On Ramp	4	3,996	4,005	16.1	16.1	B	B
	SB	Immediately North of Arrow Highway Off Ramps	4	5,327	5,141	21.7	20.9	C	C
		Between Arrow Highway Off Ramps and Live Oak On Ramps	4	4,123	4,264	16.6	17.1	B	B
		Immediately South of Live Oak On Ramps	4	5,610	6,141	23.1	25.9	C	C
I-210 FREEWAY	WB	Immediately East of Irwindale Avenue Westbound Off Ramp	4	7,872	7,328	38.1	33.6	E	D
		Between Irwindale Avenue Westbound Loop On Ramp and Irwindale Avenue Westbound Off Ramp	4	7,202	6,744	32.6	29.5	D	D
		Immediately West of Irwindale Avenue Westbound On Ramp	4	8,284	7,544	42.2	35.3	E	E
	EB	Immediately West of Irwindale Avenue Eastbound Off Ramp	4	8,149	6,791	40.8	29.8	E	D
		Between Irwindale Avenue Eastbound Off Ramp and Irwindale Avenue Eastbound OnRamp	4	6,487	5,895	27.9	24.5	D	C
		Immediately East of Irwindale Avenue Eastbound Off Ramp	4	7,026	6,879	31.4	30.4	D	D

[1] Number of lanes is in the specified direction and is based on existing conditions.

[2] Density is measured by passenger cars per mile per lane (pc/mi/ln).

[3] Level of service determined using HCS2010: Basic Freeway Segments software, Version 6.65

TABLE 6-8

INTERIM YEAR (2017) WITH PROJECT CONDITIONS
FREEWAY RAMP JUNCTION MERGE/DIVERGE ANALYSIS

FREEWAY	DIRECTION	RAMP LOCATION	Lanes on Freeway[1]	VOLUME		DENSITY [2]		LOS [3]	
				AM	PM	AM	PM	AM	PM
I-605 FREEWAY	NB	NB Off Ramp at Live Oak Avenue	4	1,541	1,543	29.9	30.3	D	D
		NB Loop On Ramp for Eastbound Arrow Highway	4	350	271	15.0	14.7	B	B
		NB Direct On Ramp for Westbound Arrow Highway	4	469	482	17.0	17.1	B	B
	SB	SB Off Ramp at Arrow Highway	4	1,204	877	31.0	28.5	D	D
		SB On Ramp at Live Oak Avenue	4	1,487	1,877	27.4	31.0	C	D
I-210 FREEWAY	WB	WB Off Ramp at Irwindale Avenue	4	670	584	37.4	34.6	E	D
		WB Loop On Ramp at Irwindale Avenue	4	593	500	32.3	30.0	D	D
		WB Direct On Ramp at Irwindale Avenue	4	489	300	32.3	28.9	D	D
	EB	EB Off Ramp at Irwindale Avenue	4	1,662	896	25.0	18.8	C	B
		EB On Ramp at Irwindale Avenue	4	539	984	26.9	28.4	C	D

[1] Existing conditions for all study area merge/diverge locations consists of single lane on/off ramps.

[2] Density is measured by passenger cars per mile per lane (pc/mi/ln).

[3] Level of service determined using HCS2010 : Ramps and Ramp Junction software, Version 6.65

TABLE 6-9

INTERIM YEAR (2017) WITH PROJECT CONDITIONS
INTERSECTION QUEUING ANALYSIS SUMMARY[1]

ID	Intersection	Turning Movement Lane	Existing Storage Length[2] (feet)	Minimum Recommended Storage Length[3] (feet)	95th Percentile Queue Length Per Lane (feet)		Acceptable?[4]	
					AM	PM	AM	PM
3	I-605 SB Off-Ramp (NS) / Arrow Hwy. (EW)	SBL	980	-	470	373	YES	YES
		EBT	1,300	-	146	205	YES	YES
		WBT	1,160	-	381	211	YES	YES
7	I-605 SB On-Ramp (NS) / Live Oak Av. (EW)	EBT	1,200	-	131	332	YES	YES
		WBL	350	-	182	238	YES	YES
		WBT	545	-	0	119	YES	YES
8	I-605 NB Off-Ramp (NS) / Live Oak Av. (EW)	NBR	835	-	556	463	YES	YES
		SBR Loop	1,560	-	387	386	YES	YES
		EBT	545	-	15	0	YES	YES
		WBT	545	-	67	25	YES	YES

[1] Queue length calculated using Synchro 8 with SimTraffic.

[2] Existing pocket length storage (for turning movements) or link distance (for through movements).

[3] Minimum recommended storage length needed to accommodate the anticipated 95th percentile queues.

[4] Storage Length is acceptable if the required queuing length is less than or equal to the storage length provided.

6.4 LONG RANGE (2035) WITHOUT PROJECT

The Long Range (2035) Without Project freeway mainline analysis results are presented on Table 6-10. As shown on Table 6-10, the following study area freeway mainline segments are anticipated to operate at unacceptable level of service (LOS "E" or worse) during the peak hours, with existing geometry:

ID	Freeway Mainline Segments
8	I-210 Westbound, Immediately East of Irwindale Avenue Westbound Off-Ramp
9	I-210 Westbound, Between Irwindale Avenue Westbound Loop On-Ramp and Irwindale Avenue Westbound Off-Ramp
10	I-210 Westbound, Immediately West of Irwindale Avenue Westbound On-Ramp
11	I-210 Eastbound, Immediately West of Irwindale Avenue Eastbound Off-Ramp
13	I-210 Eastbound, Immediately East of Irwindale Avenue Eastbound Off-Ramp

The Long Range (2035) Without Project freeway ramp analysis results are presented on Table 6-11. As shown on Table 6-11, the following study area freeway ramp locations are projected to operate at unacceptable level of service (LOS "E" or worse) during the peak hours, with existing geometry:

ID	Freeway Merge/Diverge Ramp Junctions
6	I-210 Westbound - Off-Ramp at Irwindale Avenue (Diverge)
8	I-210 Westbound - Direct On-Ramp at Irwindale Avenue Highway (Merge)

The queuing analysis results are presented in Table 6-12. Vehicular queues appear to clear in a reasonable and timely fashion throughout the network under Long Range (2035) Without Project traffic conditions.

The freeway mainline, ramp, and queuing analysis calculation worksheets for Long Range (2035) Without Project conditions are included in Appendix "R".

6.5 LONG RANGE (2035) WITH PROJECT

The Long Range (2035) With Project freeway mainline analysis results are presented on Table 6-13. As shown on Table 6-13, there are no new study area freeway mainline segments anticipated to operate at unacceptable level of service (LOS "E" or worse) during the peak hours, with existing geometry, in addition to the previously identified locations under Long Range (2035) Without Project conditions.

The Long Range (2035) With Project freeway ramp analysis results are presented on Table 6-14. As shown on Table 6-14, there are no new study area freeway ramp locations projected to operate at unacceptable level of service (LOS "E" or worse) during the peak hours, with existing geometry, in addition to the previously identified locations under Long Range (2035) Without Project conditions.

The queuing analysis results are presented in Table 6-15. Vehicular queues appear to clear in a reasonable and timely fashion throughout the network under Long Range (2035) With Project traffic conditions.

TABLE 6-10

LONG RANGE (2035) WITHOUT PROJECT CONDITIONS
BASIC FREEWAY SEGMENT ANALYSIS SUMMARY

FREEWAY	DIRECTION	MAINLINE SEGMENT LOCATION	Lanes[1]	VOLUME		DENSITY[2]		LOS[3]	
				AM	PM	AM	PM	AM	PM
I-605 FREEWAY	NB	Immediately South of Live Oak Avenue	4	4,956	5,025	20.0	20.3	C	C
		Between Live Oak Avenue and Eastbound Arrow Highway Loop On Ramp	4	3,429	3,503	13.8	14.1	B	B
		Between Eastbound Arrow Highway Loop On Ramp and Westbound Arrow Highway On Ramp	4	3,804	3,783	15.3	15.2	B	B
		Immediately North of Westbound Arrow Highway On Ramp	4	4,150	4,152	16.7	16.7	B	B
	SB	Immediately North of Arrow Highway Off Ramps	4	5,576	5,388	22.9	22.0	C	C
		Between Arrow Highway Off Ramps and Live Oak On Ramps	4	4,452	4,604	17.9	18.5	B	C
		Immediately South of Live Oak On Ramps	4	5,937	6,495	24.8	27.9	C	D
I-210 FREEWAY	WB	Immediately East of Irwindale Avenue Westbound Off Ramp	4	8,442	7,861	44.0	38.0	E	E
		Between Irwindale Avenue Westbound Loop On Ramp and Irwindale Avenue Westbound Off Ramp	4	7,751	7,259	37.0	33.1	E	D
		Immediately West of Irwindale Avenue Westbound On Ramp	4	8,878	8,092	49.5	40.2	F	E
	EB	Immediately West of Irwindale Avenue Eastbound Off Ramp	4	8,701	7,286	47.1	33.2	F	D
		Between Irwindale Avenue Eastbound Off Ramp and Irwindale Avenue Eastbound OnRamp	4	6,970	6,353	31.0	27.1	D	D
		Immediately East of Irwindale Avenue Eastbound Off Ramp	4	7,526	7,372	35.1	33.9	E	D

[1] Number of lanes is in the specified direction and is based on existing conditions.

[2] Density is measured by passenger cars per mile per lane (pc/mi/ln).

[3] Level of service determined using HCS2010: Basic Freeway Segments software, Version 6.65

TABLE 6-11

LONG RANGE (2035) WITHOUT PROJECT CONDITIONS
FREEWAY RAMP JUNCTION MERGE/DIVERGE ANALYSIS

FREEWAY	DIRECTION	RAMP LOCATION	Lanes on Freeway[1]	VOLUME		DENSITY [2]		LOS [3]	
				AM	PM	AM	PM	AM	PM
I-605 FREEWAY	NB	NB Off Ramp at Live Oak Avenue	4	1,527	1,522	30.9	31.1	D	D
		NB Loop On Ramp for Eastbound Arrow Highway	4	375	280	16.1	15.6	B	B
		NB Direct On Ramp for Westbound Arrow Highway	4	346	369	17.0	17.1	B	B
	SB	SB Off Ramp at Arrow Highway	4	1,124	784	31.6	29.0	D	D
		SB On Ramp at Live Oak Avenue	4	1,485	1,891	28.6	32.3	D	D
I-210 FREEWAY	WB	WB Off Ramp at Irwindale Avenue	4	691	602	39.9	37.0	E	E
		WB Loop On Ramp at Irwindale Avenue	4	617	520	34.5	32.0	D	D
		WB Direct On Ramp at Irwindale Avenue	4	510	313	36.5	30.9	E	D
	EB	EB Off Ramp at Irwindale Avenue	4	1,731	933	30.3	20.7	D	C
		EB On Ramp at Irwindale Avenue	4	556	1,019	28.7	30.3	D	D

[1] Existing conditions for all study area merge/diverge locations consists of single lane on/off ramps unless noted.

[2] Density is measured by passenger cars per mile per lane (pc/mi/ln).

[3] Level of service determined using HCS2010 : Ramps and Ramp Junction software, Version 6.65

TABLE 6-12

LONG RANGE (2035) WITHOUT PROJECT CONDITIONS
INTERSECTION QUEUING ANALYSIS SUMMARY[1]

ID	Intersection	Turning Movement Lane	Existing Storage Length[2] (feet)	Minimum Recommended Storage Length[3] (feet)	95th Percentile Queue Length Per Lane (feet)		Acceptable?[4]	
					AM	PM	AM	PM
3	I-605 SB Off-Ramp (NS) /							
	Arrow Hwy. (EW)	SBL	980	-	474	274	YES	YES
		EBT	1,300	-	106	174	YES	YES
		WBT	1,160	-	309	197	YES	YES
7	I-605 SB On-Ramp (NS) /							
	Live Oak Av. (EW)	EBT	1,200	-	133	344	YES	YES
		WBL	350	-	168	201	YES	YES
		WBT	545	-	39	127	YES	YES
8	I-605 NB Off-Ramp (NS) /							
	Live Oak Av. (EW)							
		NBR	835	-	575	461	YES	YES
		SBR Loop	1,560	-	387	387	YES	YES
		EBT	545	-	24	9	YES	YES
		WBT	545	-	46	25	YES	YES

[1] Queue length calculated using Synchro 8 with SimTraffic.

[2] Existing pocket length storage (for turning movements) or link distance (for through movements).

[3] Minimum recommended storage length needed to accommodate the anticipated 95th percentile queues.

[4] Storage Length is acceptable if the required queuing length is less than or equal to the storage length provided.

TABLE 6-13

LONG RANGE (2035) WITH PROJECT CONDITIONS
BASIC FREEWAY SEGMENT ANALYSIS SUMMARY

FREEWAY	DIRECTION	MAINLINE SEGMENT LOCATION	Lanes[1]	VOLUME		DENSITY[2]		LOS[3]	
				AM	PM	AM	PM	AM	PM
I-605 FREEWAY	NB	Immediately South of Live Oak Avenue	4	5,078	5,154	20.6	20.9	C	C
		Between Live Oak Avenue and Eastbound Arrow Highway Loop On Ramp	4	3,429	3,503	13.8	14.1	B	B
		Between Eastbound Arrow Highway Loop On Ramp and Westbound Arrow Highway On Ramp	4	3,804	3,783	15.3	15.2	B	B
		Immediately North of Westbound Arrow Highway On Ramp	4	4,300	4,293	17.3	17.2	B	B
	SB	Immediately North of Arrow Highway Off Ramps	4	5,733	5,530	23.7	22.7	C	C
		Between Arrow Highway Off Ramps and Live Oak On Ramps	4	4,452	4,604	17.9	18.5	B	C
		Immediately South of Live Oak On Ramps	4	6,051	6,615	25.4	28.6	C	D
I-210 FREEWAY	WB	Immediately East of Irwindale Avenue Westbound Off Ramp	4	8,520	7,928	44.9	38.7	E	E
		Between Irwindale Avenue Westbound Loop On Ramp and Irwindale Avenue Westbound Off Ramp	4	7,824	7,321	37.7	33.5	E	D
		Immediately West of Irwindale Avenue Westbound On Ramp	4	8,951	8,154	50.5	40.8	F	E
	EB	Immediately West of Irwindale Avenue Eastbound Off Ramp	4	8,774	7,349	48.0	33.7	F	D
		Between Irwindale Avenue Eastbound Off Ramp and Irwindale Avenue Eastbound OnRamp	4	7,043	6,416	31.5	27.4	D	D
		Immediately East of Irwindale Avenue Eastbound Off Ramp	4	7,603	7,440	35.8	34.4	E	D

[1] Number of lanes is in the specified direction and is based on existing conditions.

[2] Density is measured by passenger cars per mile per lane (pc/mi/ln).

[3] Level of service determined using HCS2010: Basic Freeway Segments software, Version 6.65

TABLE 6-14

LONG RANGE (2035) WITH PROJECT CONDITIONS
FREEWAY RAMP JUNCTION MERGE/DIVERGE ANALYSIS

FREEWAY	DIRECTION	RAMP LOCATION	Lanes on Freeway[1]	VOLUME		DENSITY [2]		LOS [3]	
				AM	PM	AM	PM	AM	PM
I-605 FREEWAY	NB	NB Off Ramp at Live Oak Avenue	4	1,649	1,651	32.0	32.4	D	D
		NB Loop On Ramp for Eastbound Arrow Highway	4	375	280	16.1	15.6	B	B
		NB Direct On Ramp for Westbound Arrow Highway	4	496	510	18.2	18.2	B	B
	SB	SB Off Ramp at Arrow Highway	4	1,281	926	33.1	30.4	D	D
		SB On Ramp at Live Oak Avenue	4	1,599	2,011	29.5	33.3	D	D
I-210 FREEWAY	WB	WB Off Ramp at Irwindale Avenue	4	696	607	40.3	37.3	E	E
		WB Loop On Ramp at Irwindale Avenue	4	617	520	34.7	32.2	D	D
		WB Direct On Ramp at Irwindale Avenue	4	510	313	37.1	31.1	E	D
	EB	EB Off Ramp at Irwindale Avenue	4	1,731	933	31.0	21.0	D	C
		EB On Ramp at Irwindale Avenue	4	560	1,024	29.0	30.5	D	D

[1] Existing conditions for all study area merge/diverge locations consists of single lane on/off ramps.

[2] Density is measured by passenger cars per mile per lane (pc/mi/ln).

[3] Level of service determined using HCS2010 : Ramps and Ramp Junction software, Version 6.65

TABLE 6-15

LONG RANGE (2035) WITH PROJECT CONDITIONS
INTERSECTION QUEUING ANALYSIS SUMMARY[1]

ID	Intersection	Turning Movement Lane	Existing Storage Length[2] (feet)	Minimum Recommended Storage Length[3] (feet)	95th Percentile Queue Length Per Lane (feet)		Acceptable?[4]	
					AM	PM	AM	PM
3	I-605 SB Off-Ramp (NS) /							
	Arrow Hwy. (EW)	SBL	980	-	667	346	YES	YES
		EBT	1,300	-	150	247	YES	YES
		WBT	1,160	-	420	190	YES	YES
7	I-605 SB On-Ramp (NS) /							
	Live Oak Av. (EW)	EBT	1,200	-	132	386	YES	YES
		WBL	350	-	207	232	YES	YES
		WBT	545	-	0	141	YES	YES
8	I-605 NB Off-Ramp (NS) /							
	Live Oak Av. (EW)							
		NBR	835	-	547	455	YES	YES
		SBR Loop	1,560	-	387	387	YES	YES
		WBT	545	-	65	11	YES	YES

[1] Queue length calculated using Synchro 8 with SimTraffic.

[2] Existing pocket length storage (for turning movements) or link distance (for through movements).

[3] Minimum recommended storage length needed to accommodate the anticipated 95th percentile queues.

[4] Storage Length is acceptable if the required queuing length is less than or equal to the storage length provided.

The freeway mainline, ramp, and queuing analysis calculation worksheets for Long Range (2035) With Project conditions are included in Appendix "S".

Table 6-16 summarizes the vehicular queues for Existing, Existing Plus Project, Interim Year Without Project, Interim Year With Project, Long Range (2035) Without Project, and Long Range (2035) With Project conditions.

TABLE 6-16

INTERSECTION QUEUING ANALYSIS SUMMARY COMPARISON[1]
95TH PERCENTILE QUEUE LENGTH PER LANE (FEET)

ID	Intersection	Turning Movement Lane	Existing (2013)						Interim Year (2016)						Long Range (2035)					
			No Project Queue length per lane (ft)		With Project Queue length per lane (ft)		Delta[2] Queue length per lane (ft)		No Project Queue length per lane (ft)		With Project Queue length per lane (ft)		Delta[2] Queue length per lane (ft)		No Project Queue length per lane (ft)		With Project Queue length per lane (ft)		Delta[2] Queue length per lane (ft)	
			AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
3	I-605 SB Off-Ramp (NS) /																			
	Arrow Hwy. (EW)	SBL	307	261	491	405	184	144	380	260	470	373	90	113	474	274	667	346	193	72
		EBT	107	192	152	275	45	83	114	180	146	205	32	25	106	174	150	247	44	73
		WBT	294	128	401	181	107	53	282	175	381	211	99	36	309	197	420	190	111	(7) [3]
7	I-605 SB On-Ramp (NS) /																			
	Live Oak Av. (EW)	EBT	126	334	141	347	15	13	148	309	131	332	(17) [3]	23	133	344	132	386	(1)	42 [3]
		WBL	204	228	203	271	(1) [3]	43	163	240	182	238	19	(2) [3]	168	201	207	232	39	31
		WBT	98	117	63	0	(35) [3]	(117) [3]	43	107	0	119	(43) [3]	12	39	127	0	141	(39)	14 [3]
8	I-605 NB Off-Ramp (NS) /																			
	Live Oak Av. (EW)																			
		NBR	514	506	572	492	58	(14) [3]	539	520	556	463	17	(57) [3]	575	461	547	455	(28)	(6) [3]
		SBR Loop	480	399	438	444	(42) [3]	45	395	387	387	386	(8) [3]	(1) [3]	387	387	387	387	-	-
		EBT	0	0	0	6	-	6	9	0	15	0	6	-	24	9	0	0	(24)	(9) [3]
		WBT	0	0	26	58	26	58	90	62	67	25	(23) [3]	(37) [3]	46	25	65	11	19	(14) [3]

[1] Queue length calculated using Synchro 8, traffic signal coordination software or SimTraffic for unsignalized intersections.

[2] Delta = With Project - No Project

[3] Synchro 8 software program calculates the 95th Percentile Queue based on the Average Queue plus a 1.65 standard deviation. The 95th Percentile Queue, which may not ever be observed, is based on statistical calculations and simulations. In some cases, the addition of Project traffic yields a reduction in queue length due to variations in arrival patterns distributed to other intersection movements.

7.0 IMPROVEMENT AND PROJECT FAIR SHARE CONTRIBUTION

This section of the report summarizes the off-site improvements and fair share percentages required to meet level of service requirements at each of the analysis locations where improvements are required. Improvements which will eliminate all anticipated roadway operational deficiencies throughout the study area have been identified for Long Range (2035) With Project Buildout traffic conditions. The improvements were determined through the operations analysis sections of this traffic study. Per City of Irwindale guidelines, the project shall pay its fair share of improvements to eliminate any of the significant impacts identified in the analysis chapters of this report.

7.1 OFF-SITE RECOMMENDED IMPROVEMENTS

For Existing plus Project, Interim Year (2017) Without and With Project conditions, the following improvements are recommended:

I-605 NB Off-Ramp (NS) / Live Oak Avenue (EW) (#8)

- Install a traffic signal
- Construct a 2nd northbound right turn lane.
- Provide a 3rd westbound through lane by modifying the existing raised median. This will also provide additional queuing storage for the westbound left turn lane at the intersection of I-605 SB On-Ramp (NS) / Live Oak Avenue (EW).

In addition, the following improvements are recommended for 2035 with Project Conditions:

I-605 SB Off-Ramp (NS) / Arrow Highway (EW) (#3)

- Construct a 2nd southbound left turn lane.

It should be noted that the abovementioned improvements are generally consistent with the Traffic Study Report for I-605/Live Oak Avenue/Arrow Highway Interchanges December 14, 2012), prepared by Advantec Consulting Engineers.

7.2 2035 WITH PROJECT FAIR SHARE PERCENTAGE

The project fair share contributions towards the required 2035 off-site intersection improvements for the project are presented on Table 7-1. The project fair share contribution towards the required 2035 improvements at each location is based on the project's percentage of new traffic for Long Range With Project (2035) conditions. As indicated in Table 7-1, the project contributes approximately 20% of the new traffic at the intersection of I-605 SB Off-Ramp / Arrow Highway and approximately 33% of the new traffic at the intersection I-605 NB Off-Ramp / Live Oak Avenue.

TABLE 7-1

2035 WITH PROJECT BUILDOUT
FAIR SHARE PERCENTAGES FOR OFF-SITE IMPROVEMENTS

ID	INTERSECTION	EXISTING TRAFFIC	2035 WITHOUT PROJECT	2035 WITH PROJECT TRAFFIC	2035 PROJECT ONLY TRAFFIC	TOTAL NEW TRAFFIC[1]	PROJECT % OF NEW TRAFFIC[2]
3	I-605 SB Off-Ramp (NS) / Arrow Hwy. (EW)						
	• AM Peak Hour	3,229	3,928	4,104	176	875	**20%**
	• PM Peak Hour	2,454	3,196	3,364	168	910	18%
8	I-605 NB Off-Ramp (NS) / Live Oak Av. (EW)						
	• AM Peak Hour	3,010	3,513	3,756	243	746	**33%**
	• PM Peak Hour	3,747	4,359	4,614	255	867	29%

[1] Total New Traffic = (2035 With Project Traffic - Existing Traffic)

[2] Project % of New Traffic = (2035 Project Only Traffic / Total New Traffic)

8.0 FINDINGS AND RECOMMENDATIONS

This chapter of the report summarizes the overall findings and provides recommendations regarding project related traffic improvements.

8.1 FINDINGS

8.1.1 EXISTING CONDITIONS

Regional access to the site is provided by a number of major freeways, including Interstate Freeway 10 (I-10) to the south, I-605 Freeway to the west and I-210 Freeway to the north. However, based on discussion with the project team, project related truck traffic will be accessing the freeway system via the I-605 Freeway On and Off Ramps. Local access to the project site is anticipated to be provided by the following roadways:

- Rivergrade Road
- Stewart Avenue
- Baldwin Park Boulevard
- Arrow Highway
- Live Oak Avenue

For Existing (2016) conditions, the following intersection currently operates at unacceptable level of service (LOS "E" or worse) during the peak hours:

ID	Intersection Location	Jurisdiction
8	I-605 NB Off-Ramp (NS) / Live Oak Av. (EW)	Caltrans

Freeway Mainline Segment Analysis results indicate that the following study area mainline segment locations operate at an unacceptable level of service (LOS "E" or worse) during the peak hours under Existing conditions, with existing geometry:

ID	Freeway Mainline Segments
8	I-210 Westbound, Immediately East of Irwindale Avenue Westbound Off-Ramp
10	I-210 Westbound, Immediately West of Irwindale Avenue Westbound On-Ramp
11	I-210 Eastbound, Immediately West of Irwindale Avenue Eastbound Off-Ramp

Merge/Diverge Ramp Junction Analysis results indicate that the following study area ramp location appear to operate at an unacceptable level of service (LOS "E" or worse) during the peak hours under Existing conditions, with existing geometry:

ID	Freeway Merge/Diverge Ramp Junctions
6	I-210 Westbound - Off-Ramp at Irwindale Avenue (Diverge)

The I-605 queuing analysis results indicate that vehicular queues appear to clear in a reasonable and timely fashion throughout the network under existing conditions.

8.1.2 PROJECT DEVELOPMENT

The project will be constructed in one phase and expected to become operational in 2017. The project is expected to process approximately 6,000 tons of material per day with up to 345 employees.

Tables 2-1 (previously presented) and 2-2 present the project's trip generation. The proposed project is anticipated to generate approximately 8,333 passenger car equivalent (PCE) trip-ends per day with 664 AM peak hour trips and 664 PM peak hour trips.

8.1.3 FUTURE TRAFFIC CONDITIONS

For Existing (2016) Plus Project, Interim Year (2017) Without and With Project, and Long Range (2035) Without Project conditions, no new intersections are projected to operate at unacceptable level of service in addition to the previously identified location under Existing (2016) conditions.

For Long Range (2035) With Project conditions, the following intersection is projected to operate at unacceptable level of service (LOS "E" or worse) during the peak hours, with existing geometry, in addition to the previously identified location under Existing (2016) conditions:

ID	Intersection Location	Jurisdiction
3	I-605 SB Off-Ramp (NS) / Arrow Hwy. (EW)	Caltrans

For Existing (2016) Plus Project, Interim Year (2017) Without and With Project conditions, no new study area mainline segment locations are projected to operate at an unacceptable level of service (LOS "E" or worse) during the peak hours, with existing geometry, in addition to the previously identified locations under Existing (2016) conditions.

For Long Range (2035) Without and With Project conditions, the following freeway mainline segment locations are projected to operate at unacceptable level of service (LOS "E" or worse) during the peak hours, with existing geometry, in addition to the previously identified locations under Existing conditions:

ID	Freeway Mainline Segments
9	I-210 Westbound, Between Irwindale Avenue Westbound Loop On-Ramp and Irwindale Avenue Westbound Off-Ramp
13	I-210 Eastbound, Immediately East of Irwindale Avenue Eastbound Off-Ramp

For Existing (2016) Plus Project, Interim Year (2017) Without and With Project conditions, no new study area ramp locations are projected to operate at an unacceptable level of service (LOS "E" or worse) during the peak hours, with existing geometry, in addition to the previously identified location under Existing (2016) conditions.

For Long Range (2035) Without and With Project conditions, the following study area ramp location is anticipated to operate at unacceptable level of service (LOS "E" or worse) during the peak hours, with existing geometry, in addition to the previously identified location under Existing Conditions:

ID	Freeway Merge/Diverge Ramp Junctions
8	I-210 Westbound - Direct On-Ramp at Irwindale Avenue Highway (Merge)

The I-605 queuing analysis results indicate that vehicular queues appear to clear in a reasonable and timely fashion throughout the network under all traffic conditions. It should be noted that the 3rd westbound through lane improvement recommended to mitigate the deficient intersection of I-605 NB Off-Ramp / Live Oak Avenue (#8) will provide additional queuing storage for the westbound left turn lane at the intersection of I-605 SB On-Ramp (NS) / Live Oak Avenue (EW).

Queuing analysis results indicate that the vehicular queues appear to clear in a reasonable and timely fashion throughout the network under Long Range (2035) traffic conditions. It should be noted however that the 3rd westbound through lane improvement recommended to mitigate the deficient intersection of I-605 NB Off-Ramp / Live Oak Avenue (#8) will provide additional queuing storage for the westbound left turn lane at the intersection of I-605 SB On-Ramp (NS) / Live Oak Avenue (EW).

As the proposed project would contribute to the existing and forecasted deficient freeway segments, the project's contribution to these cumulative traffic impacts are considered cumulatively considerable.

Neither Caltrans nor the State has adopted a fee program that can ensure that locally-contributed impact fees will be tied to improvements to freeway mainlines, and only Caltrans has the jurisdiction over mainline improvements. Because Caltrans has exclusive control over state highway improvements, ensuring that fair share contributions to mainline improvements are actually part of a program tied to implementation of mitigation is within the jurisdiction of Caltrans. As such, the City of Irwindale may decide whether specific overriding economic, legal, social, technological, or other benefits of the project outweigh the unavoidable adverse cumulative traffic impacts associated with the project alternative.

8.2 PROJECT RECOMMENDATIONS

Recommended off-site and on-site improvements are presented on Exhibits 8-A through 8-D. Exhibit 8-A illustrates the Interim Year (2017) With Project off-site improvements. Exhibit 8-B includes the conceptual striping plan for the off-site improvements identified in Exhibit 8-A. Exhibit 8-C presents the Long Range (2035) With Project off-site improvements. Exhibit 8-D presents the on-site improvements related to the project access intersections. As shown on Exhibit 8-D, the recommended on-site improvements are as follows:

Arrow Highway (NS) / Driveway 1 (EW) (#16) – Install a traffic signal and construct the intersection with the following geometrics:

Northbound Approach: One left turn lane (two way turn lane) and two through lanes.

Southbound Approach: Two through lanes and one right turn lane.

Eastbound Approach: One left turn lane and one right turn lane

Westbound Approach: N/A

Arrow Highway (NS) / Driveway 2 (EW) (#17) – Install a stop control on the eastbound approach and construct the intersection with the following geometrics:

Northbound Approach: One left turn lane (two way turn lane) and two through lanes.

Southbound Approach: Two through lanes and one right turn lane.

EXHIBIT 8-A

INTERIM YEAR (2016) WITH PROJECT CONDITIONS REQUIRED OFF-SITE IMPROVEMENTS

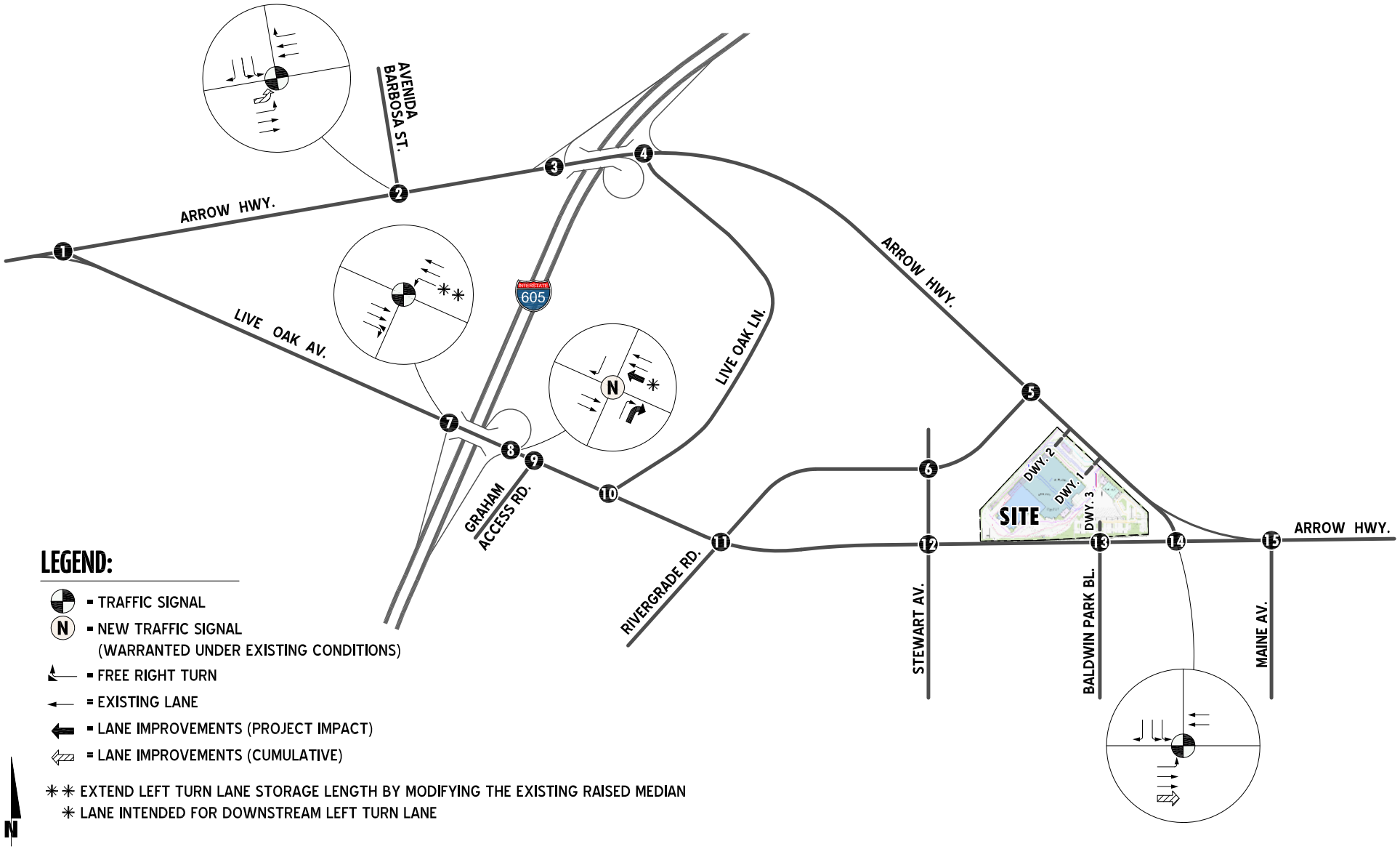


EXHIBIT 8-B

CONCEPTUAL STRIPING PLAN FOR I-605 / LIVE OAK AVENUE INTERCHANGE RECOMMENDED IMPROVEMENTS

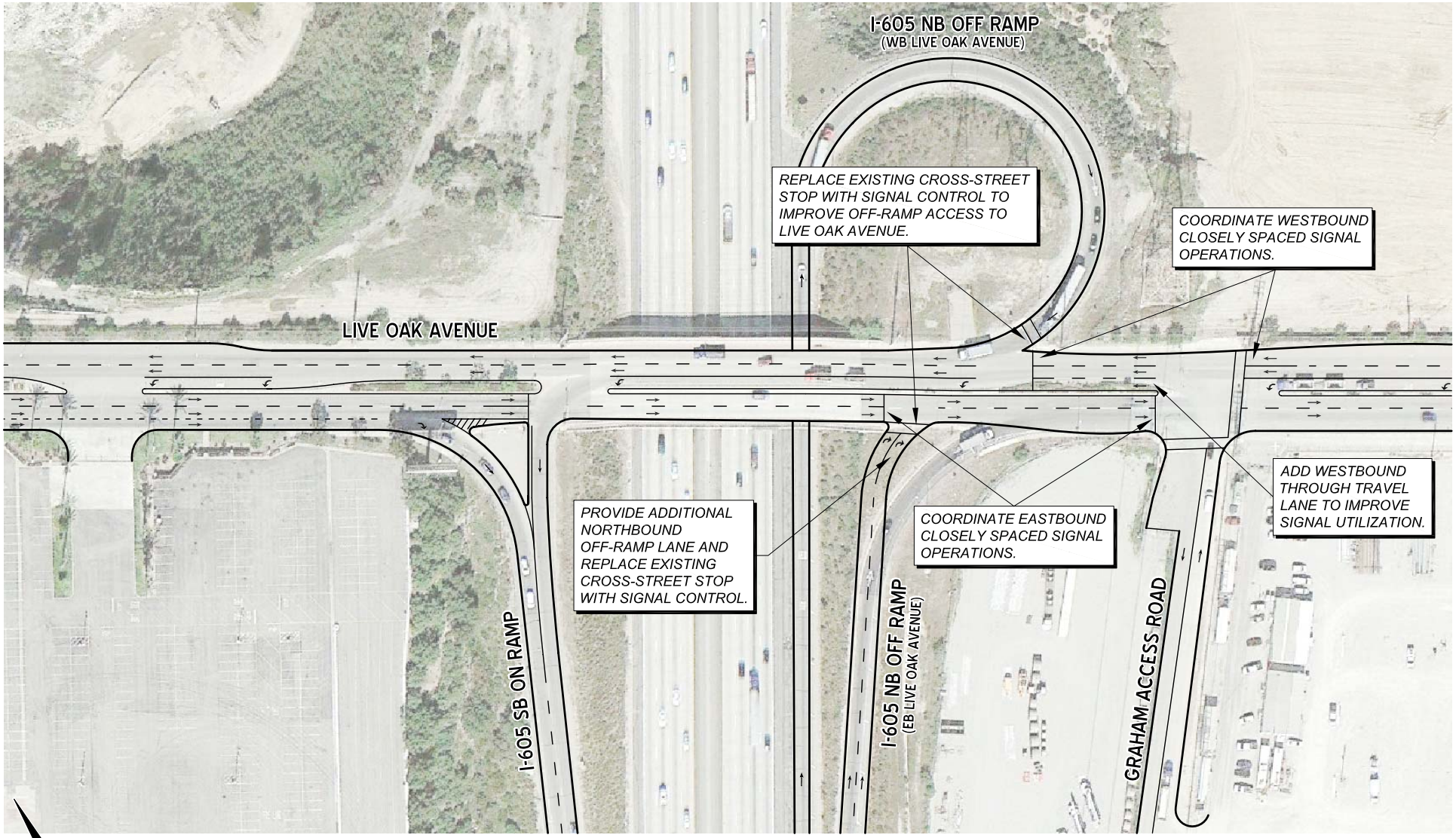


EXHIBIT 8-C

LONG RANGE HORIZON YEAR (2035) WITH PROJECT CONDITIONS REQUIRED OFF-SITE IMPROVEMENTS

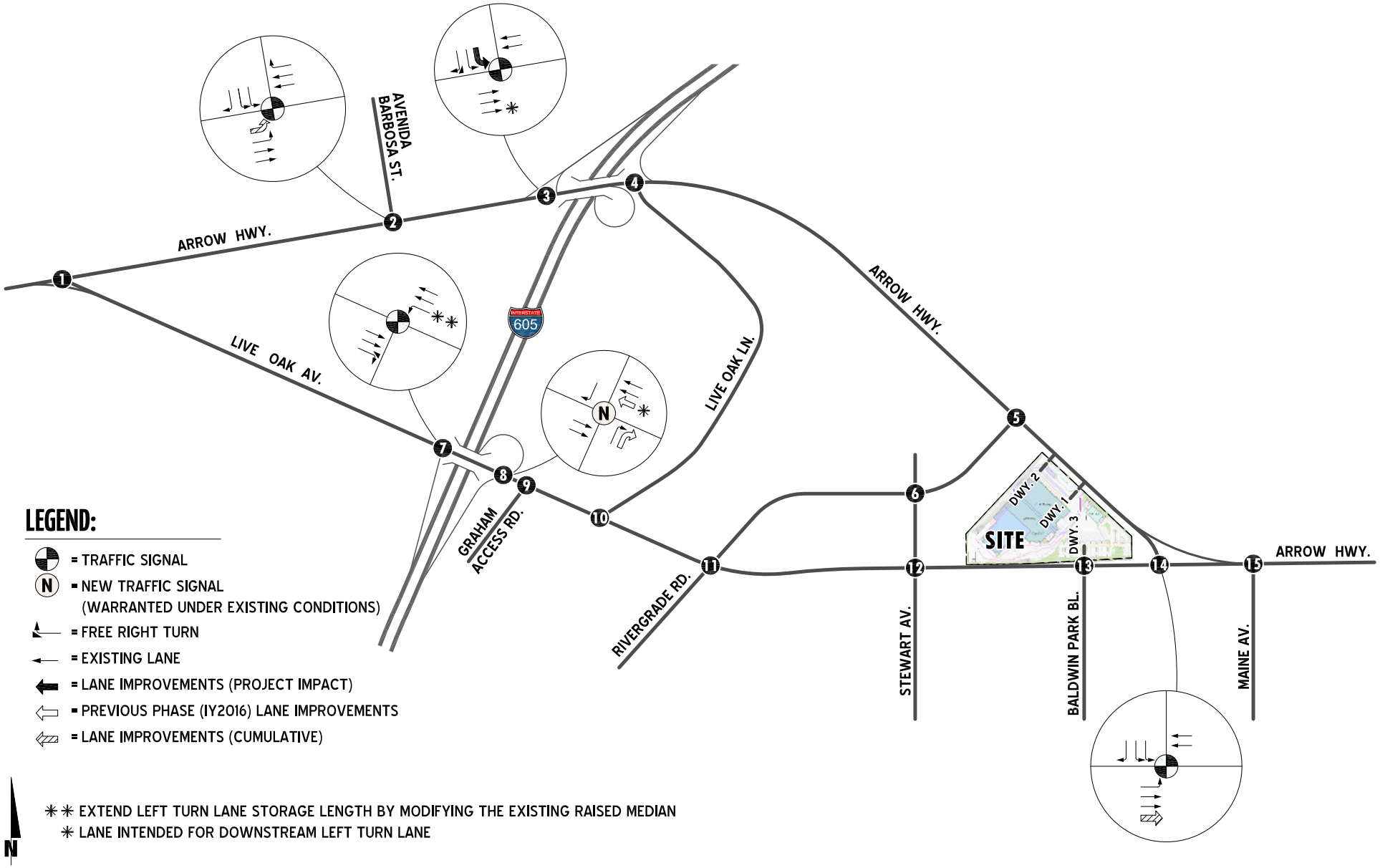
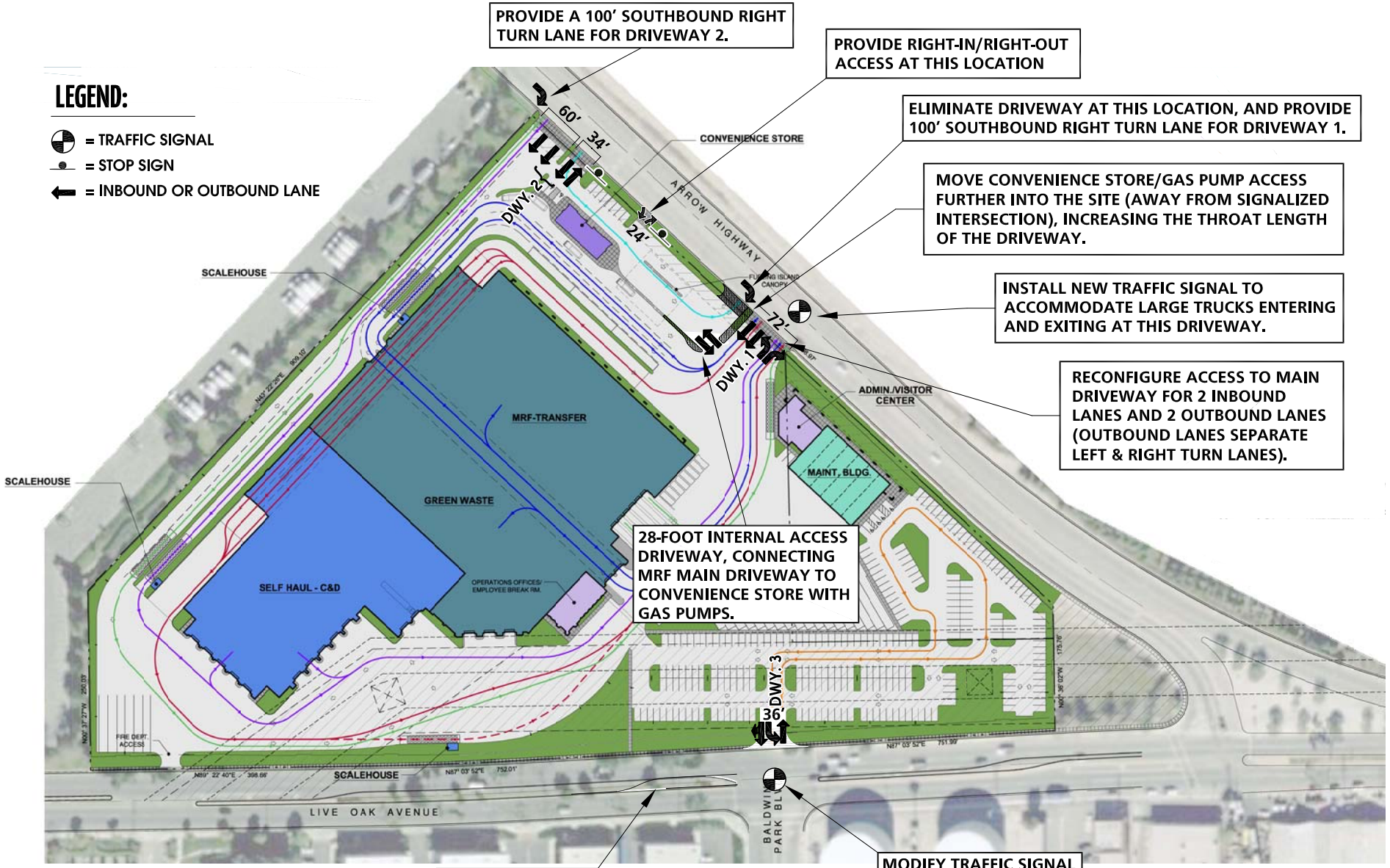


EXHIBIT 8-D

SITE ACCESS RECOMMENDATIONS



Eastbound Approach: One shared left turn and right turn lane.

Westbound Approach: N/A

Driveway 3 - Baldwin Park Boulevard (NS) / Live Oak Av. (EW) (#13) – Modify traffic signal to include Project Driveway 3 (north leg) and construct the intersection with the following geometrics:

Northbound Approach: Two left turn lanes and one shared through-right turn lane.

Southbound Approach: One left turn lane and one shared through-right turn lane.

Eastbound Approach: One left turn lane (100-foot pocket length), two through lanes, and one defacto right turn lane.

Westbound Approach: One left turn lane, two through lanes, and one right turn lane.

Vehicle queuing on-site at the Arrow Highway / Driveway 1 intersection is estimated to require approximately 240 feet of back-up / storage length during peak hours. The Project site plan accommodates this on-site peak hour queuing activity. Inbound Project traffic does not cross the paths of outbound vehicles in the vicinity of Driveway 1. However, the site access recommendation shown on Exhibit 8-D include changes to the convenience store/gas pump access configuration in order to reduce conflicting auto turning movements in the vicinity of Driveway 1. Those recommendations include the following:

- Provide a right-in/right-out access for the convenience store located between Driveway 1 and Driveway 2 along Arrow Highway.
- Eliminate convenience store Driveway located immediately to the north of Driveway 1 along Arrow Highway.
- Move Convenience Store/Gas pump access further into the site (away from signalized intersection, increasing the throat length of the driveway).
- Provide a 28-foot internal access driveway connecting MRF main driveway to convenience store with gas pumps.

On-site traffic signing and striping should be implemented in conjunction with detailed construction plans for the project site.

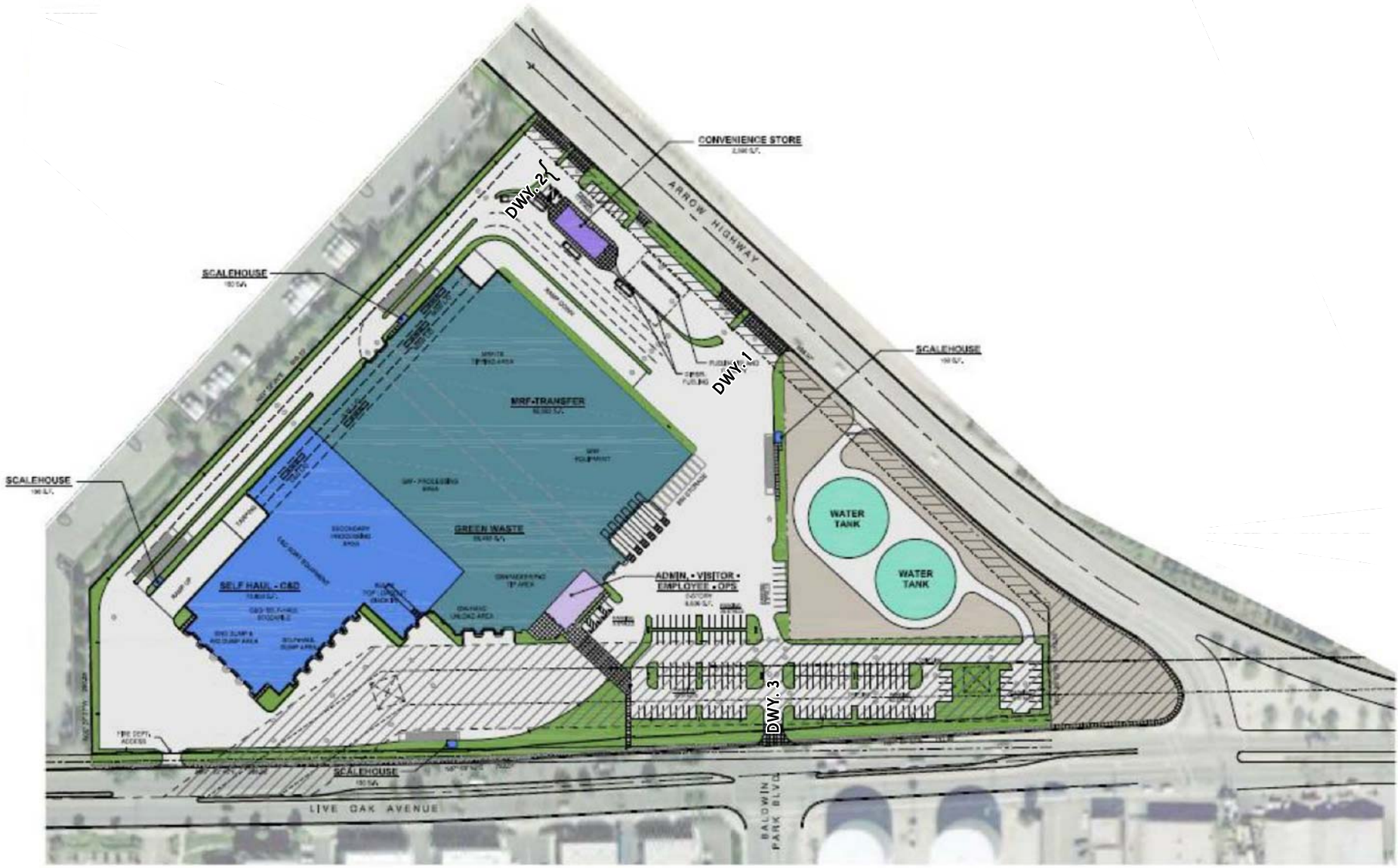
Sight distance at the project driveways should be reviewed with respect to standard Caltrans and City of Irwindale sight distance standards at the time of preparation of final grading, landscape and street improvement plans.

8.3 PROJECT VARIANT

On the far eastern corner of the site, the Valley County Water District (VCWD) has expressed interest in acquiring 1.9 acres for placement of two water storage tanks (See Exhibit 8-E). This section of the project site, owned by the City of Irwindale, is referred to as the "project variant." In the event that VCWD does acquire the 1.9 acres, the project site would not be able to accommodate the required overnight parking for transfer trucks or the administrative office/maintenance building. In that event, the Applicant would need to hire sub-hauler vendors for all transfer truck operations, and the office/visitors' center would be incorporated into the main MRF/TS building.

EXHIBIT 8-E

SITE PLAN PROJECT VARIANT



Under this alternative development option, the MRF/TS facility would essentially be the same as the proposed project, except that due to the reduced acreage available, there would be no transfer trucks parked or maintained at the facility. In the absence of on-site parking and maintenance facilities for Applicant-owned transfer trucks, all transfer truck operations would be supplied via various sub-hauler vendors and similar contract arrangements.

Recommended off-site and on-site improvements previously presented on Exhibit's 8-A through 8-D would apply to the project variant. Exhibit 8-A illustrates the Interim Year (2017) With Project off-site improvements. Exhibit 8-B includes the conceptual striping plan for the off-site improvements identified in Exhibit 8-A. Exhibit 8-C presents the Long Range (2035) With Project off-site improvements. Exhibit 8-D presents the on-site improvements related to the project access intersections.