Recirculated Initial Study/ Mitigated Negative Declaration

Pacoima Spreading Grounds Improvement Project
City of Los Angeles, California

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SECTION 1.0 INTRODUCTION

In accordance with the California Environmental Quality Act (CEQA) (*California Public Resources Code* §21000 et seq.) and the State CEQA Guidelines (*California Code of Regulations,* Title 14, §15000 et seq.), this Recirculated Initial Study (IS) has been prepared as documentation for a Mitigated Negative Declaration (MND) for the currently proposed Los Angeles County Flood Control District (LACFCD) Pacoima Spreading Grounds Improvement Project (Project). This Recirculated IS/MND includes a description of the Project; the location of the Project site; an evaluation of the potential environmental impacts of Project implementation; and recommended mitigation measures to lessen or avoid impacts on the environment.

Pursuant to Section 15367 of the State CEQA Guidelines, the LACFCD is the Lead Agency for the Project. It is noted that the LACFCD is administered by the County of Los Angeles Department of Public Works (LACDPW). The Lead Agency is the public agency that has the principal responsibility for carrying out a project and also has the authority to approve the Project and its accompanying environmental documentation. In addition to addressing the potential environmental impacts that would result from the Project, this Recirculated IS/MND serves as the primary environmental document for future activities associated with the Project, including discretionary approvals requested or required for Project implementation.

1.1 PROJECT HISTORY AND CALIFORNIA ENVIRONMENTAL QUALITY ACT PROCESS

1.1.1 OVERVIEW OF 2016 IS/MND PROCESS

A preliminary draft Initial Study was prepared in 2014 for the Project and was posted to the LACFCD's website for public review and consideration. In January 2016, the Pacoima Spreading Grounds Improvement Project IS/MND and a *Notice of Intent to Adopt a Mitigated Negative Declaration* (NOI), prepared in English and in Spanish, was prepared. Pursuant to Sections 15072 and 15073 of the State California Environmental Quality Act (CEQA) Guidelines, the IS/MND and NOI was distributed for a 45-day public review period from January 11, 2016 through February 25, 2016. A public meeting to summarize the findings of the IS/MND was held from 7:00 PM to 9:00 PM on January 28, 2016, at the Laborers' Local 300 Union Hall, 14800 Devonshire Street, Mission Hills, CA. The State CEQA Guidelines require a 30-day public review period for an MND being reviewed by State agencies and does not require a public meeting; the public review period was extended to 45 days (January 11 through February 25, 2016) and the public meeting convened voluntarily on January 28, 2016, by the LACFCD.

The January 2016 IS/MND was sent to the State Office of Planning and Research, State Clearinghouse and Planning Unit (State Clearinghouse); responsible and trustee agencies; organizations and interested parties, including the owners/occupants of all properties within an approximate 500-foot radius of the Project site based on the latest equalized assessment roll; and all parties who requested notice in accordance with CEQA. The NOI was filed with the Los Angeles County Registrar-Recorder/County Clerk in the City of Norwalk, and published in the Los Angeles Times. An electronic copy of the IS/MND and the NOI, or the NOI alone was provided to 23 agencies, including 11 agencies notified via the State Clearinghouse; to 574 organizations or individuals, including the surrounding property owners and/or occupants; and was e-mailed to an additional 16 organizations or individuals. A hardcopy of the IS/MND was made available for public review at the LACDPW office in the City of Alhambra and at the Pacoima Branch Library during normal business hours. An electronic copy of the IS/MND was available for viewing and downloading online at the LACDPW website: https://dpw.lacounty.gov/wrd/Projects/PacoimaSG/. In addition, the LACFCD completed Native American consultation pursuant to Assembly Bill 52.

Comments were received during the public review period from agencies and the public. As discussed further below, written responses to all comments received on the 2016 IS/MND will be prepared after the close of the public review period for this Recirculated IS/MND.

Subsequent to the public review period and at the same time the comments received were being reviewed and considered, the LACFCD learned that the Vulcan-owned sediment disposal sites would no longer be able to accept the total volume of excavated soil from the Project site. Therefore, revisions to the sediment disposal locations and the haul routes were made. Additionally, revisions to the daily and weekly schedule, and the haul routes – beyond the changes necessary to accommodate the new disposal locations – were made to the Project based on public comments received on the 2016 IS/MND and are reflected in this Recirculated IS/MND.

1.1.2 RECIRCULATED IS/MND CEQA PROCESS

Pursuant to Section 15073.5 of the State CEQA Guidelines, because the changes to the Project are considered "substantial revisions" and the January 2016 IS/MND had not been adopted by the County, a Recirculated IS/MND has been prepared to disclose the revised Project description and analyze the environmental impacts of the current Project. Section 15073.5 of the State CEQA Guidelines states:

> (a) A lead agency is required to recirculate a negative declaration when the document must be substantially revised after public notice of its availability has previously been given pursuant to Section 15072, but prior to its adoption. Notice of recirculation shall comply with Sections 15072 and 15073.
>
> (b) A "substantial revision" of the negative declaration shall mean:
>
> (1) A new, avoidable significant effect is identified and mitigation measures or project revisions must be added in order to reduce the effect to insignificance, or
>
> (2) The lead agency determines that the proposed mitigation measures or project revisions will not reduce potential effects to less than significance and new measures or revisions must be required.

The proposed Project's construction scenario has been changed from what was described in the 2016 IS/MND and, as a result, new, avoidable significant impacts were identified that required the addition of mitigation measures to reduce the effects to levels less than significant. Accordingly, this Recirculated IS/MND has been prepared because the changed Project would meet the criterion described under Section 15073.5(b)(1) above, and this results in substantial revisions to the 2016 IS/MND after its public review period but prior to its adoption as per Section 15073.5(a) above. Therefore, the LACFCD, as the Lead Agency, has commissioned the preparation of this Recirculated IS/MND and has reviewed and revised, as necessary, all submitted drafts and technical studies to reflect its independent judgment, as required by Section 21082.1 of CEQA. Information for this Recirculated IS/MND was obtained from on-site field observations and review of available technical studies, reports, guidelines, and data. Table 1-1, further below, summarizes the substantive changes to the 2016 IS/MND, those related to Project revisions and new environmental impacts and associated mitigation measures. The 2016 IS/MND will remain posted on the LACFCD's website.

Under CEQA, an Environmental Impact Report (EIR) is required when there would be impacts that would not be avoided or reduced to a less than significant level with project changes or with mitigation measures (Section 15064(a)(1) of the State CEQA Guidelines). The Recirculated IS/MND discloses the environmental impacts that would result from the revised Project and

describes new mitigation measures that would reduce all new and/or increased impacts to a less than significant level. As discussed in the Recirculated IS/MND, and affirmed by the revised technical studies prepared based on the redefined haul routes and schedule, there would be less than significant impacts after changes to the Project and/or implementation of mitigation measures. Therefore, an MND is the appropriate CEQA documentation for the Project. The changes identified in the Recirculated IS/MND and its associated technical appendices replace and supersede both the 2014 Initial Study and the 2016 IS/MND.

A *Notice of Intent to Adopt a Recirculated Mitigated Negative Declaration* (NOI) was mailed to the State Clearinghouse and affected responsible and trustee agencies and interested organizations and individuals, and it is on file at the Los Angeles County Registrar-Recorder/County Clerk in the City of Norwalk. A summary of the NOI was published in the *Los Angeles Times* on November 14, 2018 to announce the public review period. The Recirculated IS/MND and associated technical reports are available online at http://dpw.lacounty.gov/wrd/Projects/PacoimaSG. Hard copies are available for public review during business hours at the Los Angeles County Department of Public Works (LACDPW) Headquarters (900 South Fremont Avenue, 11th Floor, Alhambra, California) and at the Pacoima Branch Library located at 13605 Van Nuys Boulevard in Los Angeles, California, during business hours.

There will be a 45-day public review period for the Recirculated IS/MND, meeting and exceeding the requirements of Section 15073 of the State CEQA Guidelines. In reviewing the Recirculated IS/MND, the reviewer should focus on the sufficiency of the document in identifying and analyzing the potential impacts on the environment and ways in which the potentially significant effects of the Project are avoided or lessened. Comments or questions on this Recirculated IS/MND must be postmarked by 5:00 PM on Thursday, December 13, 2018 and can be sent in writing, either by U.S. mail to the LACFCD at the address below; via email to SpreadingGrounds@dpw.lacounty.gov; or by facsimile to (626) 457-1526. Please include "Pacoima Spreading Grounds Improvement Project" in the subject line. Comments can be mailed to the following address:

Los Angeles County Flood Control District
900 South Fremont Avenue, 11th Floor
Alhambra, California 91803
ATTN: Pacoima Spreading Grounds Improvement Project

In accordance with Section 15074 of the State CEQA Guidelines, prior to approving the Project, the Los Angeles County Board of Supervisors (Board), acting as governing body of the County, will consider the proposed Recirculated IS/MND together with any comments received during the public review periods. The Board will adopt the proposed MND and approve the Project only if it finds that that there is no substantial evidence that the Project will have a significant effect on the environment and that the MND reflects the independent judgment and analysis of the Board.

1.1.3 SUMMARY OF RECIRCULATED IS/MND FINDINGS

This Recirculated IS/MND evaluates the potential environmental impacts of Project implementation taking into consideration the proposed revisions to the Project. It includes significance determinations from the environmental analyses; it identifies regulatory requirements (RRs) that must be implemented and sets forth mitigation measures (MMs) that will lessen or avoid potentially significant Project impacts on the environment. RRs are based on local, State, and/or federal regulations or laws that are required independent of CEQA review, yet also serve to offset or prevent certain impacts. Because RRs are required to be complied with as part of a project's design or implementation, regardless of the CEQA process, they do not constitute mitigation measures under CEQA.

The LACFCD will confirm that all RRs and MMs are included in the Contractor Specifications and bid documents, as appropriate, and verified as part of the Mitigation Monitoring and Reporting Program (MMRP). Prior to mitigation, implementation of the Project would result in potentially significant impacts to Air Quality, Biological Resources, Cultural Resources, Noise, and Traffic. Implementation of MM AQ-1, MM AQ-2, MM BIO-1, MM CUL-1, MM NOI-1, and MM TRA-1, MM TRA-2, as detailed in Section 3.0, would reduce the potentially significant impacts related to these topical areas to a less than significant level. There would be no impact or less than significant impacts for all other topical areas. Although MM TCR-1 is a new mitigation measure related to the analysis of Tribal Cultural Resources, there is no significant impact identified. MM TCR-1 is included as a voluntary measure as part of the consultation process conducted with the Fernandeño Tataviam Band of Mission Indians' (Tataviam). It is noted that MM AQ-2, MM TRA-1, and MM TRA-2 presented herein are new mitigation measures for new and/or changed impacts identified in this Recirculated IS/MND.

1.2 SUMMARY OF CHANGES TO THE 2016 IS/MND

Table 1-1 below provides a tabular summary of the substantive changes to the 2016 IS/MND, with a reference to the primary section(s) of this Recirculated IS/MND addressing the change. Substantive changes include, but are not limited to: changes to a project description, analysis methodology, and/or supporting data; new or revised mitigation measures; and/or impact conclusions. Grammatical or editorial changes, or updates to reference documents that do not affect the analysis or conclusions of the IS/MND, are not considered substantive changes and are not listed below. Please refer to Section 2.0, Environmental Setting and Project Description, for a complete discussion of the currently proposed Project. The 2016 IS/MND and other documentation related to the proposed Project is available for viewing online at: https://dpw.lacounty.gov/wrd/Projects/PacoimaSG/.

It is noted that while some of the revisions discussed herein are a result of public comments on the 2016 IS/MND, individual responses to all comments received on both the 2016 IS/MND and this Recirculated IS/MND will be prepared subsequent to the issuance of the NOI and public review period for this Recirculated IS/MND. All comments received on both IS/MNDs, and written responses to these comments, will be provided to the Board as part of the information to be considered in whether to approve the Project and adopt the IS/MND.

TABLE 1-1
SUMMARY OF CHANGES TO THE 2016 IS/MND

Information Presented in 2016 IS/MND	Revisions in Recirculated IS/MND	Primary Section(s) Addressing the Change
N/A	Description of 2016 IS/MND process and decision to prepare Recirculated IS/MND	1.0 Introduction
N/A	Summary of Recirculated IS/MND findings	1.0 Introduction
Construction schedule of 8-hour days conducted within the hours of 7:00 AM to 7:00 PM on Monday–Friday and 8:00 AM to 5:00 PM on Saturday, over a period of approximately 18 months, beginning in spring 2017	Construction schedule for a maximum 8-hour day conducted within the hours of 9:00 AM to 5:30 PM, Monday–Friday, over a period of approximately 20 months, beginning in Fall 2019	2.4 Project Description 3.3 Air Quality 3.7 Greenhouse Gas Emissions 3.12 Noise 3.16 Transportation/Traffic
Project implementation would take the spreading grounds offline for one wet season	Project implementation would take the spreading grounds offline for up to two wet seasons	2.4 Project Description 3.9 Hydrology and Water Quality

TABLE 1-1
SUMMARY OF CHANGES TO THE 2016 IS/MND

Information Presented in 2016 IS/MND	Revisions in Recirculated IS/MND	Primary Section(s) Addressing the Change
Three Vulcan-owned facilities in Sun Valley area to be used for 5,000 tpd of sediment disposal: • Cal-Mat Pit • Boulevard Pit • Sheldon Pit	Four sediment disposal locations: • same three Vulcan-owned facilities for a total 2,800 tpd of sediment • addition of Sunshine Canyon Landfill located approximately 5.5 miles to the northeast of the Project site for a total of 2,200 tpd of sediment	2.4 Project Description 3.3 Air Quality 3.7 Greenhouse Gas Emissions 3.12 Noise 3.16 Transportation/Traffic
Sediment export: • up to 360 daily round trips using 14-cy trucks; or, • up to 480 daily round trips using 18-cy trucks	Sediment export: • up to 372 daily round trips using 14-cy trucks; or, • up to 478 daily round trips using 18-cy trucks[1]	2.4 Project Description 3.3 Air Quality 3.7 Greenhouse Gas Emissions 3.12 Noise 3.16 Transportation/Traffic
Two haul routes to Vulcan facilities: • Haul Route A • Haul Route B	Three haul routes: • Modified Haul Route A; to Vulcan pits via I-5 south, then to the Vulcan pits, and returning via I-210 and State Route [SR-] 118, modified to reflect community input • Haul Route B (unmodified) • Haul Route C to Sunshine Canyon Landfill via I-405 and I-5	2.4 Project Description 3.3 Air Quality 3.7 Greenhouse Gas Emissions 3.12 Noise 3.16 Transportation/Traffic
Cumulative, or related, projects presented as part of traffic analysis (Table 3-17)	Discussion of how related projects were compiled and presentation of data in Section 2.4, including Table 2-1, listing the projects, and Exhibit 2-12, a map of project locations	2.4 Project Description
N/A	Description of project feature to perform pre- and post-Project pavement evaluation and complete repairs along haul truck routes	2.4 Project Description
N/A	Discussion of conveyor belt feasibility	2.4 Project Description
N/A	Requirement for approval of Traffic Control Plan by LADOT for work within the street right-of-way	3.8 Hazards/Hazardous Materials 3.16 Transportation/Traffic
Project feature to open paved access road along segment of Pacoima Wash for public recreation discussed in analysis of Section 3.15, Recreation	More detailed description of planned recreation features and fencing	3.1 Aesthetics 3.15 Recreation
Air modeling prepared using CalEEMod Version 2013.2.2	Air modeling prepared using CalEEMod Version 2016.3.1	3.3 Air Quality
Detailed discussion of sensitive receptors presented in Section 2.0	Detailed discussion of sensitive receptors moved to Section 3.3	3.3 Air Quality 3.12 Noise

[1] The daily truck trips in the 2017 Revised Traffic Impact Study are based on a total of 5,000 tons per day (tpd) of sediment disposal, whereas the 2016 Traffic Impact Study was based on the total number of planned work hours over 18 months, as the daily disposal volume was not defined at that time. Refer to the footnotes in Table 3-22 and 3-23 for details of the daily trip generation.

TABLE 1-1
SUMMARY OF CHANGES TO THE 2016 IS/MND

Information Presented in 2016 IS/MND	Revisions in Recirculated IS/MND	Primary Section(s) Addressing the Change
RR AQ-1 presents overview of required South Coast Air Quality Management District rules applicable to Project	Additional detail added to RR AQ-1 regarding anticipated contractor requirements to manage fugitive dust under Rule 403	3.3 Air Quality
N/A	New MMs AQ-1 and AQ-2 for new significant impacts related to NOx and PM10 emissions, respectively	3.3 Air Quality
Receptor locations for dispersion modeling for Health Risk Assessment based on then-proposed haul routes	Receptor locations for dispersion modeling for Health Risk Assessment updated based on revised disposal locations and haul routes	3.3 Air Quality
MM AQ-1 indicated monitoring would be performed by the on-site Construction Manager as well as the LACFCD Inspector	MM AQ-1 revised to indicate monitoring would be performed by LACFCD's Inspector, who is on site during construction activity.	3.3 Air Quality
N/A	New MM AQ-2 requiring paving or Composite Mat System on central levee	3.3 Air Quality
N/A	Discussion of downstream hydrologic processes	3.4 Biological Resources
N/A	Discussion of killdeer nest observation in 2013	3.4 Biological Resources
AB 52 process summarized	Discussion of AB 52 process revised to clarify that consultation ended in August 2016, and the measure offered by LACFCD presented as new MM TCR-1.	3.5 Cultural Resources
N/A	Discussion of SB 32 and AB 197, in connection with EO B-30-15, as new regulatory information since preparation of 2016 IS/MND	3.7 Greenhouse Gas Emissions
N/A	Discussion of AB 1493/Pavley II, as new regulatory information since preparation of 2016 IS/MND	3.7 Greenhouse Gas Emissions
N/A	Discussion of soil sampling and laboratory analysis of samples collected within the spreading basins subsequent to 2016 IS/MND, and posted on the County's Project website	3.8 Hazards/Hazardous Materials
Management of lead-impacted soil identified in headworks area described	Augmented discussion of timing and method to manage lead-impacted soil	3.8 Hazards/Hazardous Materials
Schools within ¼-mile of Project site and haul routes listed	List of schools within ¼-mile of site and haul routes updated based on revised Project description	3.8 Hazards/Hazardous Materials
N/A	Discussion of soil filtration process and water quality with Project implementation	3.9 Hydrology and Water Quality

TABLE 1-1
SUMMARY OF CHANGES TO THE 2016 IS/MND

Information Presented in 2016 IS/MND	Revisions in Recirculated IS/MND	Primary Section(s) Addressing the Change
Analysis of Project's impact on water conservation during construction based on information from LADWP	Analysis updated based on increased Project duration	3.9 Hydrology and Water Quality
Construction noise generation modeled for spreading grounds and haul routes	Update to modeled noise generation based on revised Project description	3.12 Noise
Construction vibration levels calculated for spreading grounds and haul routes	Update to calculated vibration levels based on revised Project description	3.12 Noise
N/A	Clarification that nearby parks/recreation features would not be closed during Project implementation	3.15 Recreation
Calculation of Project's construction traffic	Revised traffic analysis based on revised Project description	3.16 Transportation/Traffic
N/A	Description of the traffic sensitivity analysis performed to inform the revised Project description	3.16 Transportation/Traffic
Traffic analysis results based on application of planned adjustments to peak-hour truck trips as part of Project	Traffic analysis presented both with and without planned adjustments to peak-hour truck trips to provide clarity on their effect, and now presented as mitigation measures	3.16 Transportation/Traffic
MM TRA-1 eliminated travel solely to Cal-Mat Pit	One new MM and one revised MM based on revised Project description and approach to traffic analysis: • MM TRA-1 imposes the peak-hour truck trip adjustments; and, • MM TRA-2 eliminates travel solely to Boulevard Pit	3.16 Transportation/Traffic
RR TRA-1 required that traffic control would be in compliance with the Greenbook	RR TRA-1 revised to include compliance with WATCH Manual for work performed in the street right-of-way	3.8 Hazards/Hazardous Materials 3.16 Transportation/Traffic
Solid waste disposal analysis addresses Vulcan pits	Solid waste disposal analysis updated based on new disposal location (Sunshine Canyon Landfill) and change in disposed volumes in each location	3.17 Utilities and Service Systems
Cumulative impacts analysis anticipated the LACFCD's Lopez Spreading Grounds Improvement Project as having potentially overlapping truck trips	Cumulative impacts analysis updated to reflect that LACFCD's Devil's Gate Sediment Removal Project, in addition to the Lopez project, could have overlapping truck trips	3.18 Mandatory Findings of Significance
Cumulative impacts analysis	Cumulative impacts analysis updated based on current list of related projects and revised Project description	3.18 Mandatory Findings of Significance
IS/MND contributors from LACDPW	LACDPW contributors updated to reflect current project staffing	4.0 Document Preparers and Contributors

TABLE 1-1
SUMMARY OF CHANGES TO THE 2016 IS/MND

Information Presented in 2016 IS/MND	Revisions in Recirculated IS/MND	Primary Section(s) Addressing the Change
Appendix A – Air Quality, Greenhouse Gas, and Health Risk Assessment	Revised technical report provided in Appendix A – Revised Air Quality, Greenhouse Gas, and Health Risk Assessment	3.3 Air Quality 3.7 Greenhouse Gas Emissions
N/A	New Appendix D-3 – Spreading Grounds Soil Testing Results providing data previously available on LACFCD's Project webpage	3.8 Hazards/Hazardous Materials
Appendix E – Noise Impact Analysis	Revised technical report provided in Appendix E – Revised Noise Impact Analysis	3.12 Noise
Appendix F – Traffic Impact Study	Revised technical report provided in Appendix F – Revised Traffic Impact Study	3.16 Transportation/Traffic

IS/MND: Initial Study/Mitigated Negative Declaration; LADOT: City of Los Angeles Department of Transportation; CalEEMod: California Emissions Estimator Model; RR: regulatory requirement; MM: mitigation measure; NOx: nitrous oxides; PM10: particulate matter with a diameter of less than 10 microns; SB: Senate Bill; AB: Assembly Bill; EO: Executive Order; MTCO2e: metric tons of CO2 equivalent; af: acre-feet; LACFCD: Los Angeles County Flood Control District; LADWP; City of Los Angeles Department of Water and Power; Greenbook: *Standard Specifications for Public Works Construction*; WATCH Manual: *Work Area Traffic Control Handbook*; cy: cubic yards; I-: Interstate; tpd: tons per day.

1.3 ORGANIZATION OF THE RECIRCULATED INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

This Recirculated IS/MND is organized into the following sections:

Section 1, Introduction: This section provides an introduction to the Recirculated IS/MND and the CEQA process; provides a tabular summary of the changes to the 2016 IS/MND presented in this Recirculated IS/MND; and provides an outline of the Recirculated IS/MND organization.

Section 2, Environmental Setting and Project Description: This section provides a description of the Project's location, existing environmental setting, the background and need for the Project; the Project's components, construction scenario, and operational and maintenance needs; and required Project-related approvals.

Section 3, Environmental Checklist Form: The completed CEQA checklist form provides an overview of the potential impacts that may result from Project implementation. The environmental checklist form also includes "mandatory findings of significance", in accordance with CEQA requirements. This section contains the analysis of environmental impacts identified in the environmental checklist and identifies mitigation measures to eliminate potential significant effects or to reduce them to a less than significant level.

Section 4, Document Preparers and Contributors: This section includes a list of those persons who participated in writing the Recirculated IS/MND.

Section 5, References: This section identifies the references used to prepare the Recirculated IS/MND.

SECTION 2.0 ENVIRONMENTAL SETTING AND PROJECT DESCRIPTION

2.1 PROJECT LOCATION

The Project site is the approximate 169-acre, County-owned Pacoima Spreading Grounds located in the City of Los Angeles (City) in the north-central portion of the San Fernando Valley at the intersection of Paxton Street and Arleta Avenue. The Los Angeles community of Mission Hills is located generally to the northwest of the site, and the community of Arleta is located generally to the southeast. The intersection of Interstate (I) 5 and State Route (SR) 118 is located less than one-quarter mile to the north of the site. Regional access to the site is via the Paxton Street exit from I-5 located immediately east of the site, as depicted in Exhibit 2-1, Regional Location and Local Vicinity. Primary vehicular access to the Pacoima Spreading Grounds by the Los Angeles County Flood Control District (LACFCD) is via Arleta Avenue and Devonshire Street.

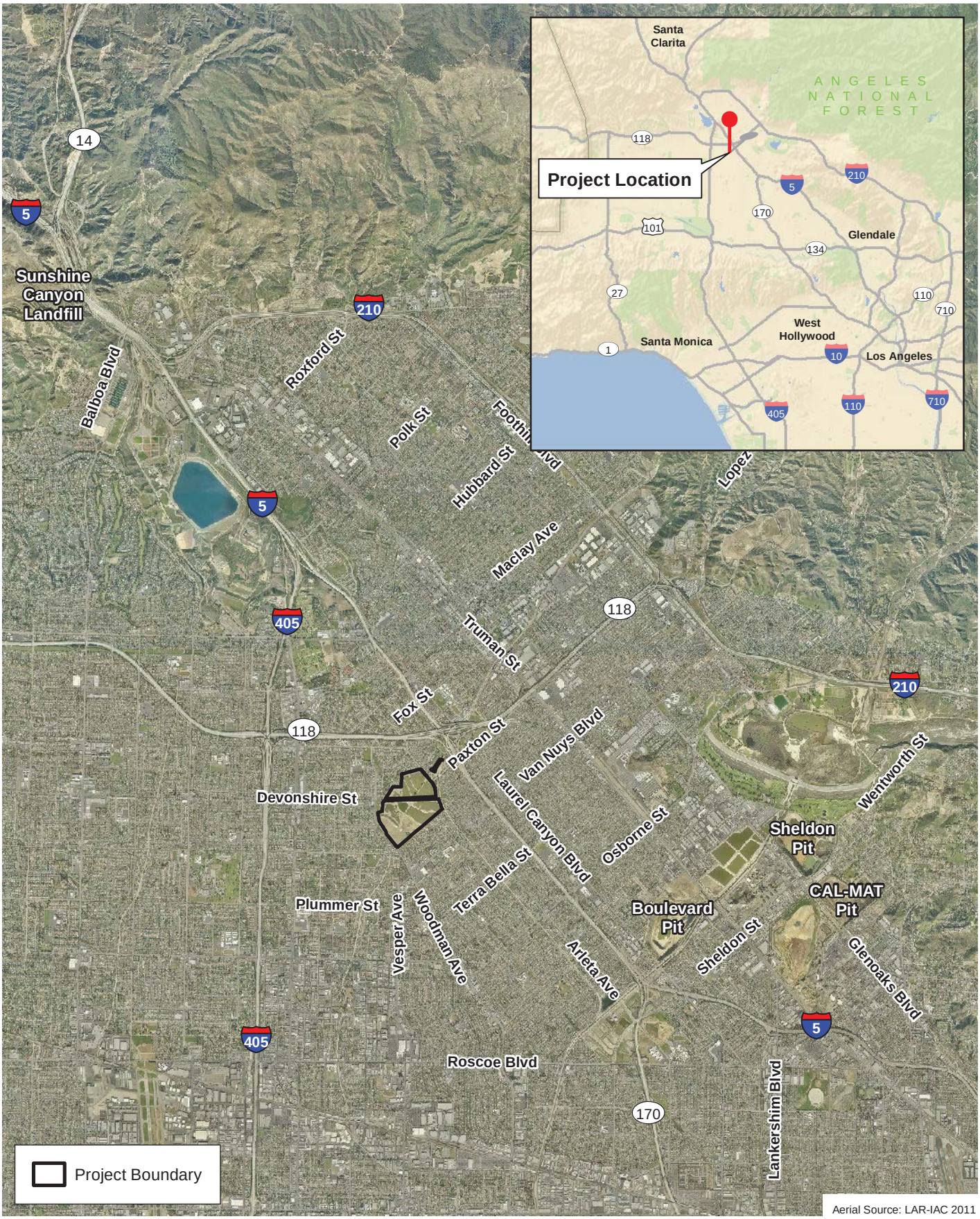
2.2 PROJECT BACKGROUND AND NEED

The Pacoima Spreading Grounds was built in the early 1930s and was first used in the 1932–1933 storm season. Major reconfigurations to the basins, which are located south of Arleta Avenue, occurred in 1942, 1984, and most significantly in 1986–1991, resulting in the current basin configuration of 12 basins, including 10 spreading basins and 2 desilting basins. Modifications to the headworks, located north of Arleta Avenue, occurred in 1939, 1953, and 1986. The most significant modification to the headworks was in 1953, when the U.S. Army Corps of Engineers (USACE) constructed the Pacoima Diversion Channel and the radial gate was installed in the channel.

The Pacoima Spreading Grounds facility is one of the major water conservation facilities that recharge the San Fernando Valley Groundwater Basin (Basin). As such, the Basin represents a vital part of the drinking water supply for the cities of Los Angeles, Glendale, and Burbank. The Pacoima Spreading Grounds is comprised of 12 basins with interbasin spillways and related structures; maintenance roads (both paved and dirt); an overflow weir for emergencies; and the headworks, including the intake canal and radial gate. The existing Pacoima Spreading Grounds conditions are illustrated on Exhibit 2-2, On-Site and Surrounding Conditions. Currently, water is diverted from the Pacoima Diversion Channel using the radial gate located at the northeast end of the site. The water then flows through the intake canal, passing through pipes under Arleta Avenue to the basins to be percolated into the groundwater basin.

The Pacoima Spreading Grounds infiltrate water that is supplied by local storm flows, controlled releases from Pacoima Dam, partially controlled flow from Lopez Flood Control Basin and Pacoima Wash, uncontrolled flows from East Canyon, and imported water from the Metropolitan Water District of Southern California. State and federal regulations–the Delta Plan, whose implementing regulations were approved in August 2013 and are codified in 23 CCR Section 5001-5016–to protect the environment in the Sacramento-San Joaquin River Delta, one of the imported water sources, are making it necessary for the Los Angeles region to become less dependent on imported water to serve its large population by enhancing the ability to capture and use of locally generated water. Among the potential impacts of climate change that are expected to affect the region are longer drought periods, less frequent storms, and more intense storms when they do occur. For all of these reasons, the Los Angeles region needs to maximize its opportunities for capturing storm water and to increase water conservation by infiltrating storm water into the underlying groundwater basins.

The Pacoima Spreading Grounds' ability to provide water recharge to the groundwater basin is limited by its water storage capacity and its percolation rate. The facility's existing water storage



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Regional Location and Local Vicinity

Exhibit 2-1

Pacoima Spreading Grounds Improvement Project

N W E S

1.25 0 1.25 Miles

BonTerra PSOMAS

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On-Site and Surrounding Conditions

Exhibit 2-2

Pacoima Spreading Grounds Improvement Project

N W E S

900 450 0 900

Feet

BonTerra PSOMAS

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capacity is 530 acre-feet (af). The existing percolation rate of 65 cubic feet per second (cfs) is currently limited due to the existence of relatively continuous clay-rich lenses with low permeability underlying the recharge area. Also, the utilization of the full 600-cfs capacity of the intake at the headworks located in the northeast portion of the site is limited during high flow conditions in Pacoima Diversion Channel because under those conditions the intake canal can overtop and flood Arleta Avenue. For these reasons, the LACFCD has determined that the Project is needed to increase water conservation by increasing the water storage capacity, to improve the efficiency of operations and maintenance of the spreading grounds by simplifying the basin configuration and automating the interbasin slide gates, and to eliminate localized flooding.

2.3 PROJECT SITE AND SURROUNDING AREA CHARACTERISTICS

2.3.1 LAND USES

The *City of Los Angeles' General Plan* (General Plan) land use designations for the site include Open Space and Public Facilities, and the zoning includes OS-1XL-O (Open Space) and PF-1XL-O (Public Facilities) (City of Los Angeles 2015b). City of Los Angeles Department of Water and Power (LADWP) and Southern California Edison (SCE) have existing utility easements that traverse the site (see Exhibit 2-3 below).

The Project site is situated in a densely developed, urban area with primarily single-family residential land uses to the north, east, south, and west. The sensitive receptors near the Project site and the proposed haul routes are detailed in Section 3.3, Air Quality, of this Recirculated IS/MND. The Los Angeles community of Mission Hills is located generally to the northwest of the site, and the community of Arleta is located generally to the southeast (see Exhibit 2-2). Other land uses surrounding the Project site include Devonshire Arleta Park to the east; commercial and community-serving land uses to the south at the Woodman Avenue/Van Nuys Boulevard to the south; a church and Devonwood Park to the west-southwest; and commercial land uses to the west at the Woodman Avenue/Devonshire Street intersection.

The Project site is irregularly shaped and is transected by two public (City) roads, Devonshire Street and by Arleta Avenue. The site is bound by residential land uses along the northern boundary, generally with the rear yards backing into the site; by Pacoima Wash or Arleta Avenue to the east; by Filmore Street to the south; and by Woodman Avenue, residential land uses, a church, or Devonwood Park to the west. Devonwood Park is located in the southeastern corner of the Devonshire Street and Woodman Avenue intersection, and abuts the Project site. Devonshire Arleta Park is located in the northeastern corner of the intersection of Devonshire Street and Pacoima Wash, approximately 150 feet northeast of the site at the nearest points. The East San Fernando Valley Nature Parkway is a beautification project that was implemented by neighborhood groups in 2012 through the planting, and subsequent maintenance, of native plants in the median between the road and the bike lane running along the public right-of-way on the south side of Devonshire Street.

Topography and Geology

The Project site has elevations ranging from approximately 960 feet above mean sea level (msl) in the northeast portion of the site to approximately 910 feet above msl in the southwest portion, with an average elevation of approximately 935 feet above msl. The site is generally flat with a gentle slope towards the south-southwest.

The site is located in the portion of the Los Angeles Basin consisting of the alluvium[2] deposited by Pacoima Wash and Tujunga Wash. The alluvium consists of sediment that includes sand, silt, gravel, and clays that have formed during the weathering of surrounding mountains. Alluvium predominantly containing sand, silt, and gravel was observed during previous subsurface investigations at the site. The results of these investigations also identified a clay layer that appeared to dip south-southwest. The thickness of this clay layer was reported to vary from 3 feet to 10 feet. The depth to the top of the clay layer was observed to range from 5 to 15 feet below ground surface (bgs) (Geosyntec 2015).

Biological Resources

There are four vegetation communities on the Project site: Ruderal[3], Developed, Disturbed, and Ornamental Landscaping. The majority of the site is comprised of Ruderal vegetation communities, which are dominated by non-native, weedy species that are adapted to frequent disturbances. Species observed in this community on the site include common knotweed (*Polygonum arenastrum*), English plantain (*Plantago lanceolata*), and white sweetclover (*Melilotus alba*). Developed areas are those that have been altered by humans and display man-made structures; Developed areas found within the Project site include paved and graded roads. Disturbed areas are often barren and lack vegetation due to clearing or grading, and are often dominated by pioneer herbaceous species that readily colonize disturbed ground. Species observed on the site in this community include wild lettuce (*Lactuca virosa*), prickly sow-thistle (*Sonchus asper*), and common sow-thistle (*Sonchus oleraceus*). Ornamental Landscaping includes areas where the vegetation is dominated by non-native horticultural plants; species observed on the site in this community include non-native pine (*Pinus* sp.), eucalyptus (*Eucalyptus* sp.), and palm trees (*Washingtonia robusta*) (Chambers 2013a).

2.4 PROJECT DESCRIPTION

The Project would involve several improvements to the existing facilities, including replacing the intake canal with underground pipelines, deepening and combining the basins to remove the underlying clay layer and to increase basin capacity, replacing interbasin structures and the outlet structure based on the new basin configuration, and installing new fencing and a bike trail, as discussed in Section 2.4.1 below. These improvements would increase the water-holding capacity of the spreading grounds from 530 af to 1,197 af, increase the percolation rate of the spreading basins from 65 cfs to 142 cfs, eliminate localized flooding on Arleta Avenue, and improve the efficiency of operations and maintenance. The Project would result in an estimated additional 10,500 acre-feet per year (af/y) of water conservation in a wet year (LACFCD 2011); however, the actual amount of water conservation would vary greatly from year to year depending on the availability of storm water. The Project components are described below and are depicted on Exhibit 2-3, Existing Facilities and Work Description; Exhibit 2-4, Proposed Site Plan; Exhibit 2-5; Intake Canal Detail; and Exhibit 2-6, Outlet Weir Detail.

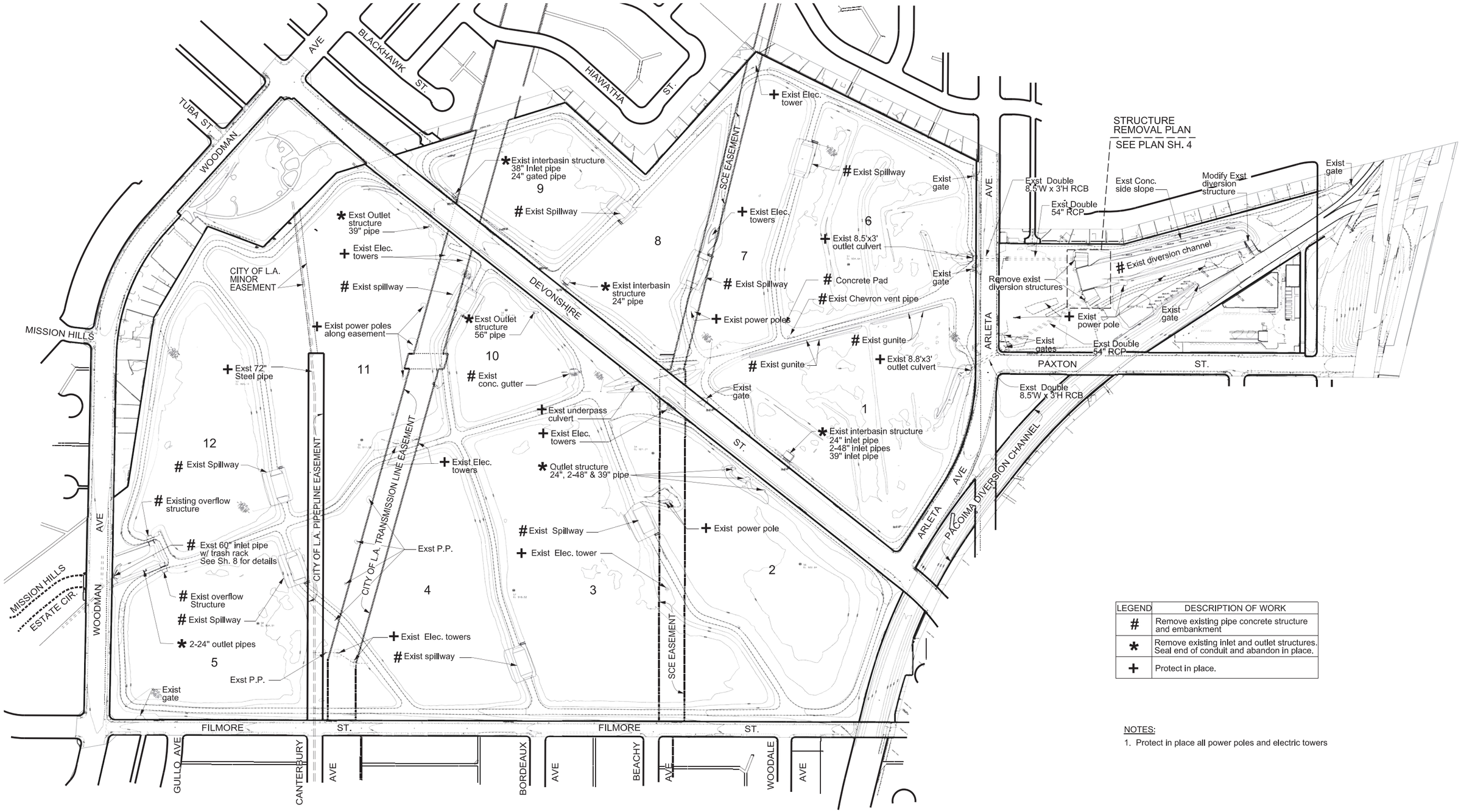
2.4.1 PROJECT COMPONENTS

Intake Canal Replacement

The existing open, earthen-bottom and concrete-sided intake canal would be demolished and replaced with four (two pairs) 54-inch-diameter reinforced concrete pipes (RCPs) that would connect to the four existing 54-inch-diameter RCPs and then the existing 8.5-foot-wide and 3-foot-tall reinforced concrete boxes (RCBs) that cross beneath Arleta Avenue and outfall in the

[2] Alluvium is a general term for sediment deposits made by streams, floodplains, and alluvial fans.

[3] An area of recent and/or periodic disturbance occupied by vegetation dominated by primarily non-native, disturbance-following species that can include some native, disturbance-following species.



LEGEND	DESCRIPTION OF WORK
#	Remove existing pipe concrete structure and embankment
*	Remove existing inlet and outlet structures. Seal end of conduit and abandon in place.
+	Protect in place.

NOTES:

1. Protect in place all power poles and electric towers

Source: Los Angeles County Flood Control District 2015

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Existing Facilities and Work Description

Exhibit 2-3

Pacoima Spreading Grounds Improvement Project

BonTerra PSOMAS

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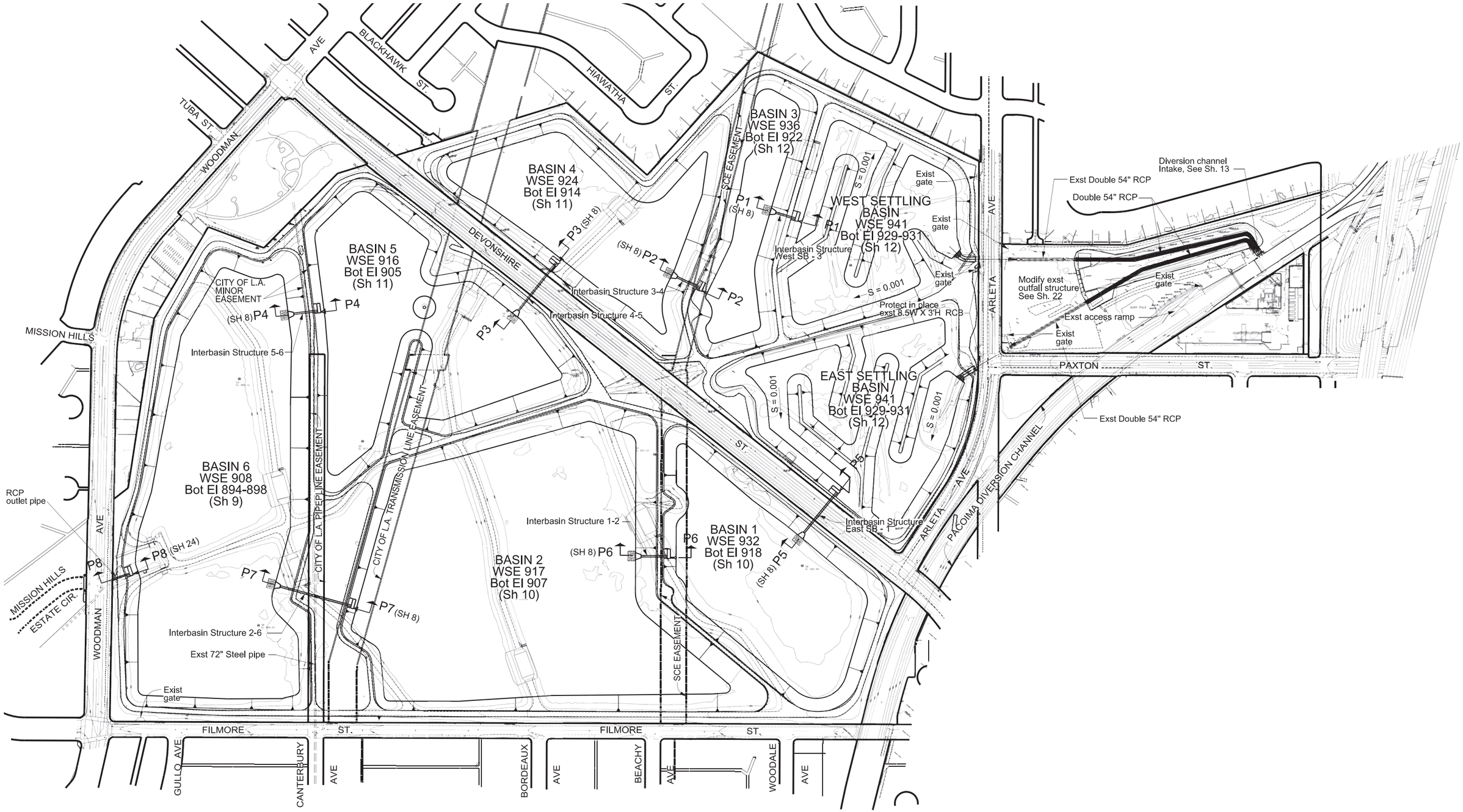

Source: Los Angeles County Flood Control District 2015

Proposed Site Plan

Exhibit 2-4

Pacoima Spreading Grounds Improvement Project

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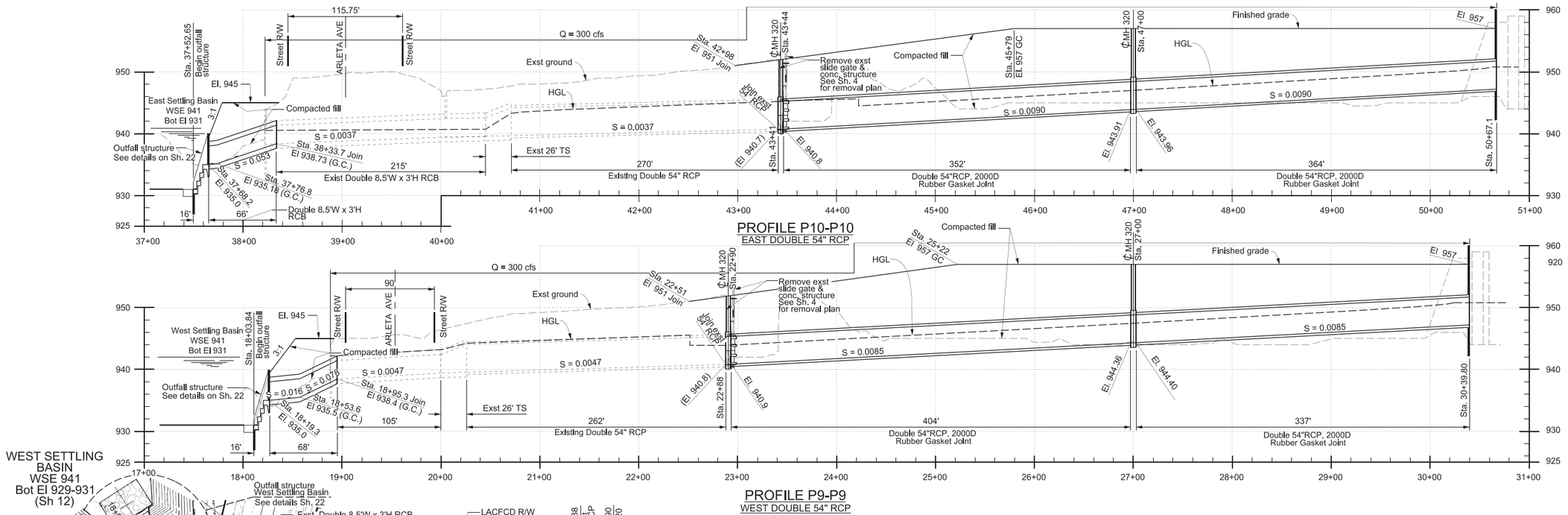

Source: Los Angeles County Flood Control District 2015

Intake Canal Detail

Exhibit 2-5

Pacoima Spreading Grounds Improvement Project

Bonterra PSOMAS

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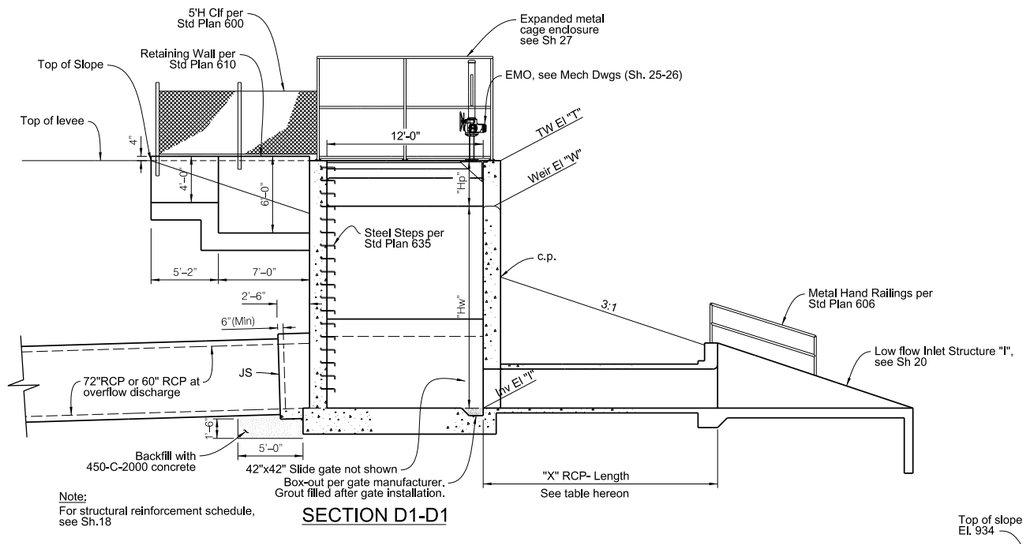
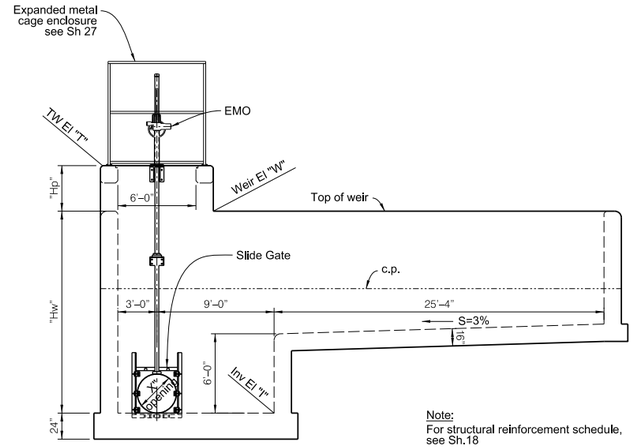


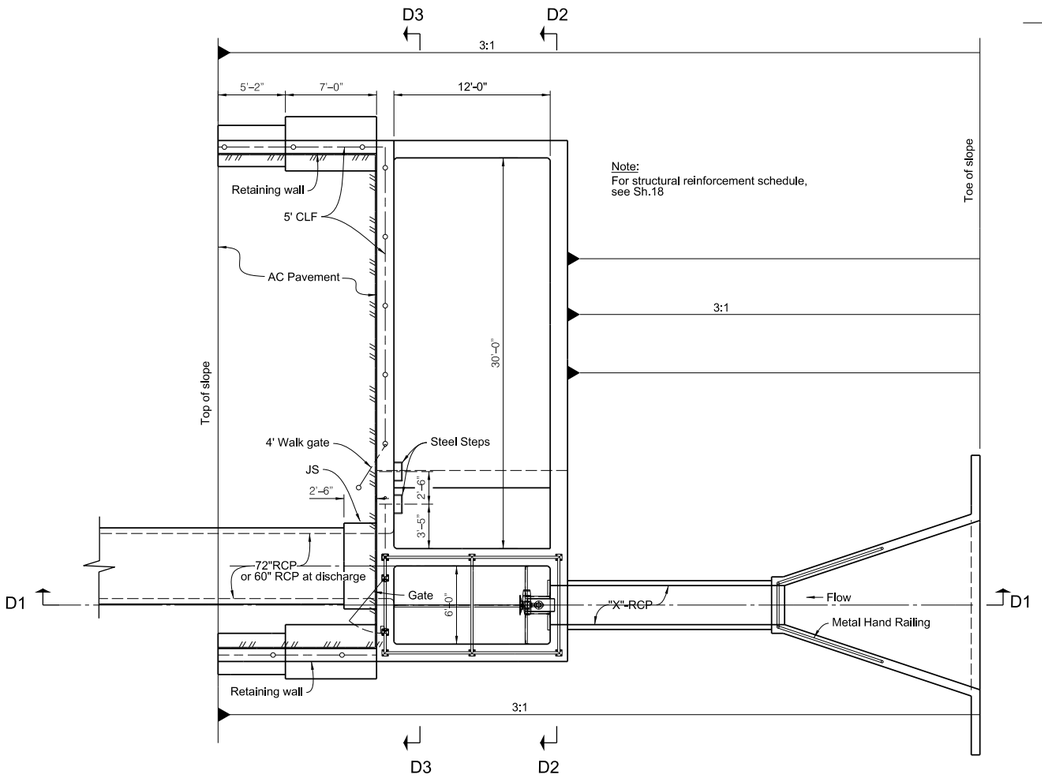
Note:
For structural reinforcement schedule, see Sh.18

SECTION D1-D1



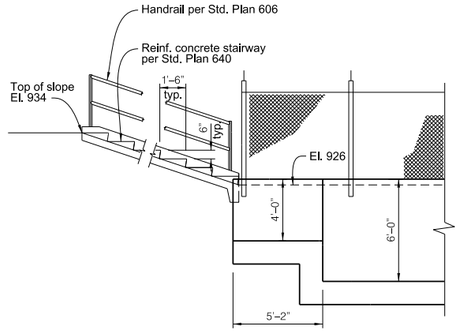
Note:
For structural reinforcement schedule, see Sh.18

SECTION D2-D2
FRONT WALL

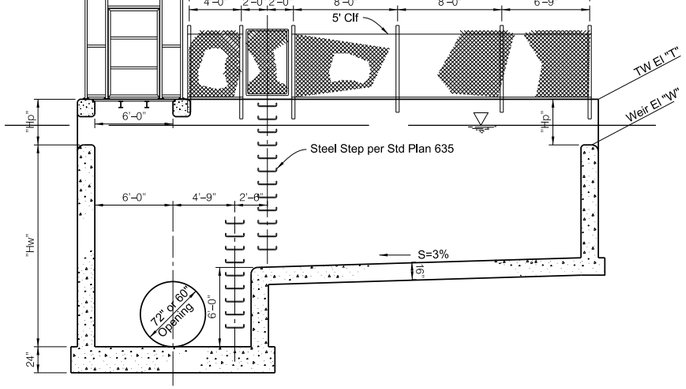


Note:
For structural reinforcement schedule, see Sh.18

PLAN
WEIR STRUCTURE (SH. 9 thru 12)



WEIR STRUCTURE 4-5
STAIRWAY DETAIL



SECTION D3-D3
BACK WALL

Source: Los Angeles County Flood Control District 2015

Outlet Weir Detail

Exhibit 2-6

Pacoima Spreading Grounds Improvement Project

BonTerra PSOMAS

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spreading basins (see Exhibit 2-4). The new pipelines would be backfilled with approximately 28,000 cubic yards (cy) of the 1.6 million cy of sediment excavated from the spreading basins. The backfill would go up to the existing ground level in the headworks area. The ground surface would remain earthen.

As shown on Exhibits 2-3 and 2-4, the intake canal replacement would also involve modification of the concrete diversion structure connecting the canal to Pacoima Wash and the removal of the two diversion structures at the south end of the existing open canal that direct diverted flows into either the east or west RCPs and under Arleta Avenue. As shown on Exhibit 2-5, installation of the new RCPs would require removing two existing trees that lie directly in the pipeline alignment. Existing trees within the spreading grounds that would interfere with the proposed locations of interbasin structures would also be removed. These trees, and all trees on the Project site, are non-native ornamental species. Consistent with LACFCD's Interim Tree Removal and Replacement Policy (RR BIO-1), all removed trees would be replaced at a 1:1 ratio or higher in a location near the existing location, unless this is not feasible, in which case the replacement tree can be planted in an alternate location within the Pacoima Spreading Grounds site. Additional mature trees grow along the LACFCD's western property line within the headworks area (see Exhibit 2-5); these are not proposed to be removed. The improved intake design would eliminate the potential for canal overtopping and flooding onto Arleta Avenue, which can occur with the current configuration during high flow conditions.

Basin Reconfiguration and Interbasin Structures

The majority of the Project site is comprised of the spreading basins, identified as Basins 1 through 12 on Exhibit 2-3. Two of these basins (Basins 1 and 6) function as desilting basins, which are intended to allow the majority of the sediment to settle out before the water passes into the primary spreading basins for infiltration. The improvements to the spreading basins include both deepening the basins and combining the basins so that the facility operates with a total of eight basins. With the basin reconfiguration, Basin 1 would become the East Settling Basin, and Basin 6 would become the West Settling Basin. The remaining basins, generally located south of the SCE easement that traverses the site (Exhibits 2-3 and 2-4), would become Basins 1 through 6. The basin reconfiguration to fewer, larger basins contributes to a greater area available for groundwater recharge and a larger storage volume.

As shown in Exhibits 2-3 and 2-4, existing concrete spillways, inlet and outlet pipes, and culverts, are collectively referred to as "interbasin structures" in this document, are present throughout the spreading grounds. In addition, an existing concrete outlet weir is located between Basins 5 and 12 and abutting Woodman Avenue; and gunite is between Basins 1 and 6. The existing spillways would be demolished and inlet/outlet pipes would either be (1) removed and recycled or (2) sealed and abandoned in place (Exhibit 2-3). For security, the new weir structure would be enclosed within 5-foot-high chain-link fence, and the aboveground electrical and mechanical equipment would be enclosed within an expanded metal cage. A total of seven new interbasin structures would be constructed. The existing overflow structure and associated 60-inch-diameter inlet pipe with trash rack would be demolished and replaced with a new 72-inch RCP with an elevation and placement based on the reconfigured basins. The new overflow structure would be the same structure as the interbasin structures, but with a new 60-inch RCP outlet into the storm drain system. The typical interbasin structure and overflow structure design is illustrated on Exhibit 2-6. These concrete structures would not appear substantively different than the existing spillways, in so much as they would be isolated concrete structures among the earthen basins. The new interbasin structures would be of similar heights (i.e., elevations) to the existing structures. Construction of the new structures would require the removal of existing ornamental trees in several locations. The removed trees would be replaced with new trees after Project completion consistent with LACFCD policy, discussed above.

As noted above, the new pipelines that are replacing the open channel would be backfilled with approximately 28,000 cy of sediment from basin excavation. The remaining approximately 1.37 million cy of sediment, including the clay layers underlying the spreading basins, would be exported from the site for disposal. Sediment would be exported off site at a rate of 5,000 tons per day (tpd), Monday through Friday with a maximum eight-hour work day conducted within the hours of 9:00 AM to 5:30 PM. No construction activity would occur on Saturdays, Sundays, or federal holidays. A total of 2,200 tpd of excavated sediment would be transported to Sunshine Canyon Landfill; and a total of 2,800 tpd of excavated material would be transported to the following Vulcan-owned sediment disposal sites: Cal-Mat Pit, Boulevard Pit, and Sheldon Pit (see Exhibit 2-1). It is anticipated that most, if not all, sediment going to a Vulcan site would be disposed at the Sheldon Pit. However, it is possible that some sediment would also go to the Cal-Mat or Boulevard Pits, and all three locations are considered as potential disposal sites for the Project. As discussed below, a total of four sediment disposal scenarios were assessed in the Revised TIS, including a scenario where 2,800 tpd of sediment was disposed at each one of the three Vulcan pits. The results of the Revised TIS are, in turn, used as part of the air quality, greenhouse gas (GHG) emissions, and noise analyses. The LACFCD has coordinated with Vulcan Materials and the Sunshine Canyon Landfill to ascertain that these facilities have the capability to accept and process these volumes of sediment in the expected time frame, as discussed under "Construction Scenario" below. The acceptance of excavated sediment from the Project site at any of the Vulcan Materials-owned pits or the Sunshine Canyon Landfill would not result in an exceedance of their permitted daily limit; each facility must operate within the restrictions set forth in their operating permits. As such, there would be no change in the environmental conditions at or around the sediment disposal locations as a result of the Project. Some excavated material would be stockpiled on the Project site for reuse as fill material. Stockpiles would be located in the interior of the spreading grounds away from the property boundaries.

It is noted that the use of trucks for the disposal of sediment was determined by the LACFCD to be the most efficient method of disposal for the proposed Project. The use of a conveyor belt for sediment removal was investigated and found to be infeasible due to the distance from the disposal sites, limited rights-of-way, and physical obstacles along the potential belt alignments.

Sediment Disposal and Proposed Haul Routes

The Vulcan sites (i.e., Cal-Mat Pit, Boulevard Pit, and Sheldon Pit [see Exhibit 2-1]) are all located in the Sun Valley area of Los Angeles, approximately 5.7 miles southeast of the Project site; and the Sunshine Canyon Landfill is located at 14747 San Fernando Road in the community of Sylmar, approximately 5.5 miles northeast of the site. Based on the revised Project parameters, three haul routes connecting the Pacoima Spreading Grounds site to the sediment disposal sites have been identified—Modified Haul Route A (to Vulcan pits via I-5 south, then to the Vulcan pits, and returning via I-210 and State Route [SR] 118, modified to reflect community input), Haul Route B (to and from Vulcan pits via San Fernando Road), and Haul Route C (to Sunshine Canyon Landfill via I-405 and I-5). The alignments of these haul routes are discussed in further detail below.

To provide an analysis of various sediment disposal possibilities, the Revised TIS prepared for the Project (Appendix F) assessed impacts for the following four alternative scenarios for the distribution of sediment to the disposal sites:

- Alternative 1: Concurrent Use of All Vulcan Pits and Sunshine Canyon Landfill
- Alternative 2: Use of Boulevard Pit and Sunshine Canyon Landfill
- Alternative 3: Use of Sheldon Pit and Sunshine Canyon Landfill
- Alternative 4: Use of Cal-Mat Pit and Sunshine Canyon Landfill

Each of these alternatives includes sediment disposal of 2,200 tpd at Sunshine Canyon Landfill; the remainder of the sediment (2,800 tpd) would be distributed to one or more of the Vulcan pits. Sediment hauling activities would be coordinated to reduce loading and unloading wait time for trucks. Portions of Modified Haul Route A and Haul Route B overlap in two places: near the Project site and near the Vulcan pits. These alternatives for the distribution of sediment to the disposal sites, as well as the Modified Haul Route A, Haul Route B are depicted on Exhibits 2-7, Alternative 1: Concurrent Use of All Vulcan Pits; Exhibit 2-8, Alternative 2: Use of Boulevard Pit; Exhibit 2-9, Alternative 3: Use of Sheldon Pit; and Exhibit 2-10, Alternative 4: Use of Cal-Mat Pit. Exhibit 2-11, Sunshine Canyon Landfill Haul Route, depicts the alignment of Haul Route C. Each of the three haul routes is described below.

Modified Haul Route A would involve loaded trucks traveling eastbound on Devonshire Street (from the east side of the spreading grounds) and turning immediately north on Arleta Avenue, northeast on Paxton Street to access I-5 Southbound, and either (1) taking the Sheldon Street exit heading northwest on Laurel Canyon Boulevard and northeast on Branford Street to access the Boulevard Pit, or (2) taking the Penrose Street exit then heading southwest on Penrose Street, northwest on San Fernando Road, northeast on Tuxford Street, northwest on Glenoaks Boulevard to access the Cal-Mat Pit, or continuing further on Glenoaks Boulevard and making a right turn on Sheldon Street to access the Sheldon Pit.

Empty trucks would either travel northeast on Branford Street from the Boulevard Pit then northwest on Glenoaks Boulevard, travel northwest on Glenoaks Boulevard from the Cal-Mat Pit, or travel southwest on Sheldon Street from the Sheldon Pit then northwest on Glenoaks Boulevard, northeast on Osborne Street and Foothill Boulevard to access I-210 Westbound, merging onto SR-118 Westbound, taking the San Fernando Road exit, making a right turn on Paxton Street heading southwest, southbound on Arleta Avenue and then westbound on Devonshire Street into the spreading grounds.

Haul Route B would involve loaded trucks traveling eastbound on Devonshire Street and turning immediately north on Arleta Avenue, turning northeast on Paxton Street, turning right onto San Fernando Road, and travelling southeast to either (1) turn southwest on Branford Street to access the Boulevard Pit or (2) turn northeast on Branford Street, then southeast on Glenoaks Boulevard and northeast on Sheldon Street to access either the Sheldon Pit or the Cal-Mat Pit. Empty trucks would retrace the same route to return to the spreading grounds.

Haul Route C would involve loaded trucks traveling westbound on Devonshire Street to access I-405 Northbound and then merging onto I-5 Northbound, taking the Roxford Street exit heading southwest and turning immediately northwest on Sepulveda Boulevard, continuing northwest on San Fernando Road, and then turning left on Sunshine Canyon Road to access the Sunshine Canyon Landfill. Empty trucks would retrace the same route to return to the spreading grounds.

As noted above and shown on Exhibit 2-11, there would be haul truck traffic entering or existing on Devonshire Street west of the spreading grounds under Haul Route C (to and from Sunshine Canyon Landfill). The planned haul routes do not include side residential streets, defined as those streets serving almost exclusively traffic to and from individual residences.

Daily Truck Trips

Based on the revised schedule and disposal locations, the proposed Project would generate a total of 372 daily truck trip ends (186 inbound and 186 outbound) during a typical weekday using only 18-cy capacity haul trucks, plus 18 daily employee trip ends (390 trip ends total). This includes a total of 208 trip ends to the Vulcan pits on Modified Haul Route A and Haul Route B, and 164 trip ends to Sunshine Canyon Landfill on Haul Route C. Using solely 14-cy capacity

Source: Linscott, Law & Greenspan, Engineers 2017

Alternative 1: Concurrent Use of All Vulcan Pits

Exhibit 2-7

Pacoima Spreading Grounds Improvement Project

BonTerra PSOMAS

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Source: Linscott, Law & Greenspan, Engineers 2017

Alternative 2: Use of Boulevard Pit

Exhibit 2-8

Pacoima Spreading Grounds Improvement Project

N W E S

BonTerra PSOMAS

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EXISTING PACOIMA SPREADING GROUNDS

ENTERING DISPOSAL SITE

EXITING DISPOSAL SITE

Source: Linscott, Law & Greenspan, Engineers 2017

Alternative 3: Use of Sheldon Pit

Exhibit 2-9

Pacoima Spreading Grounds Improvement Project

N W E S

BonTerra PSOMAS

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EXISTING PACOIMA SPREADING GROUNDS

ENTERING DISPOSAL SITE

EXITING DISPOSAL SITE

Source: Linscott, Law & Greenspan, Engineers 2017

Alternative 4: Use of Cal-Mat Pit

Exhibit 2-10

Pacoima Spreading Grounds Improvement Project

N W E S

BonTerra PSOMAS

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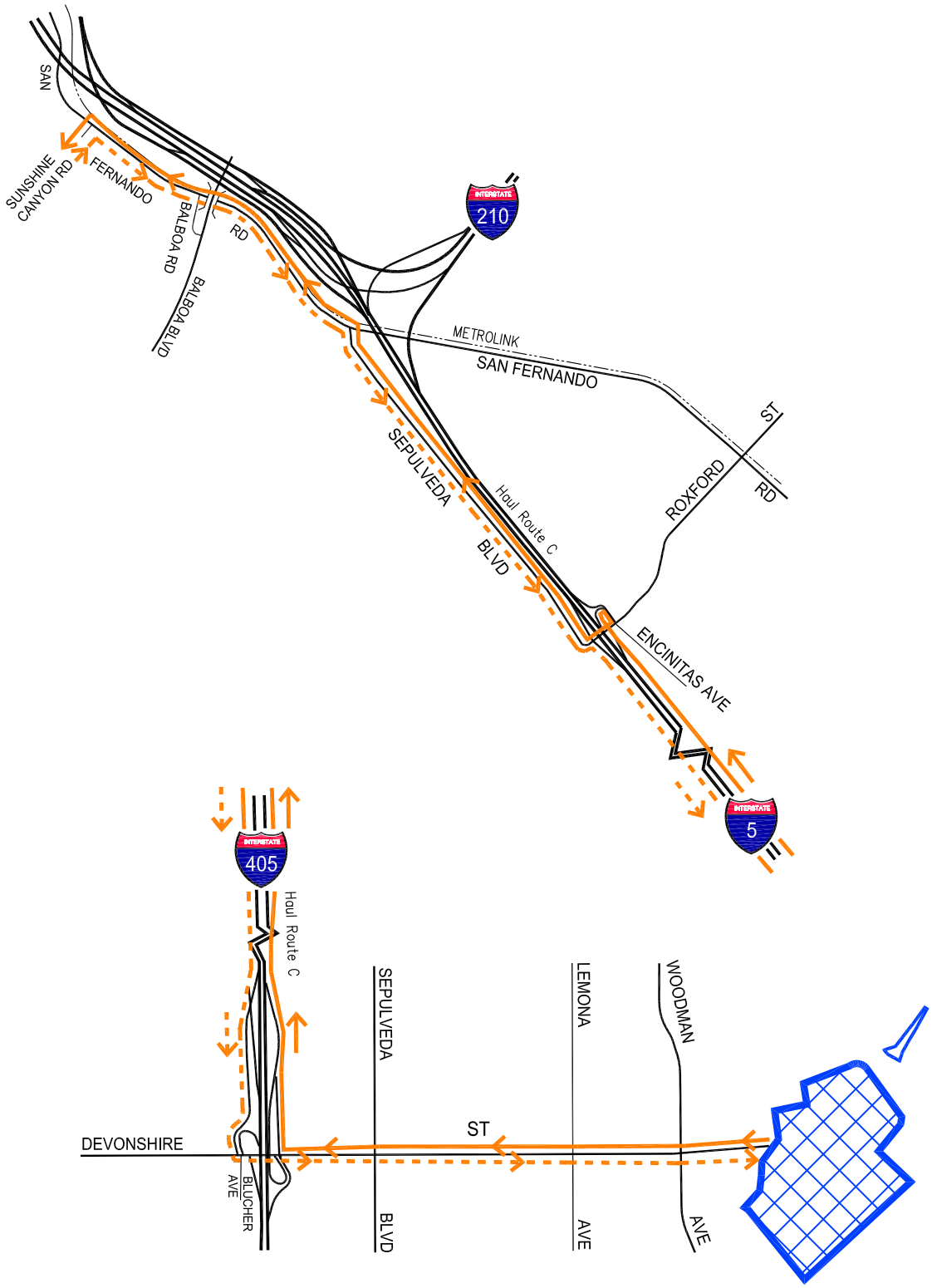

Source: Linscott, Law & Greenspan, Engineers 2017

Sunshine Canyon Landfill Haul Route

Exhibit 2-11

Pacoima Spreading Grounds Improvement Project

N W E S

BonTerra PSOMAS

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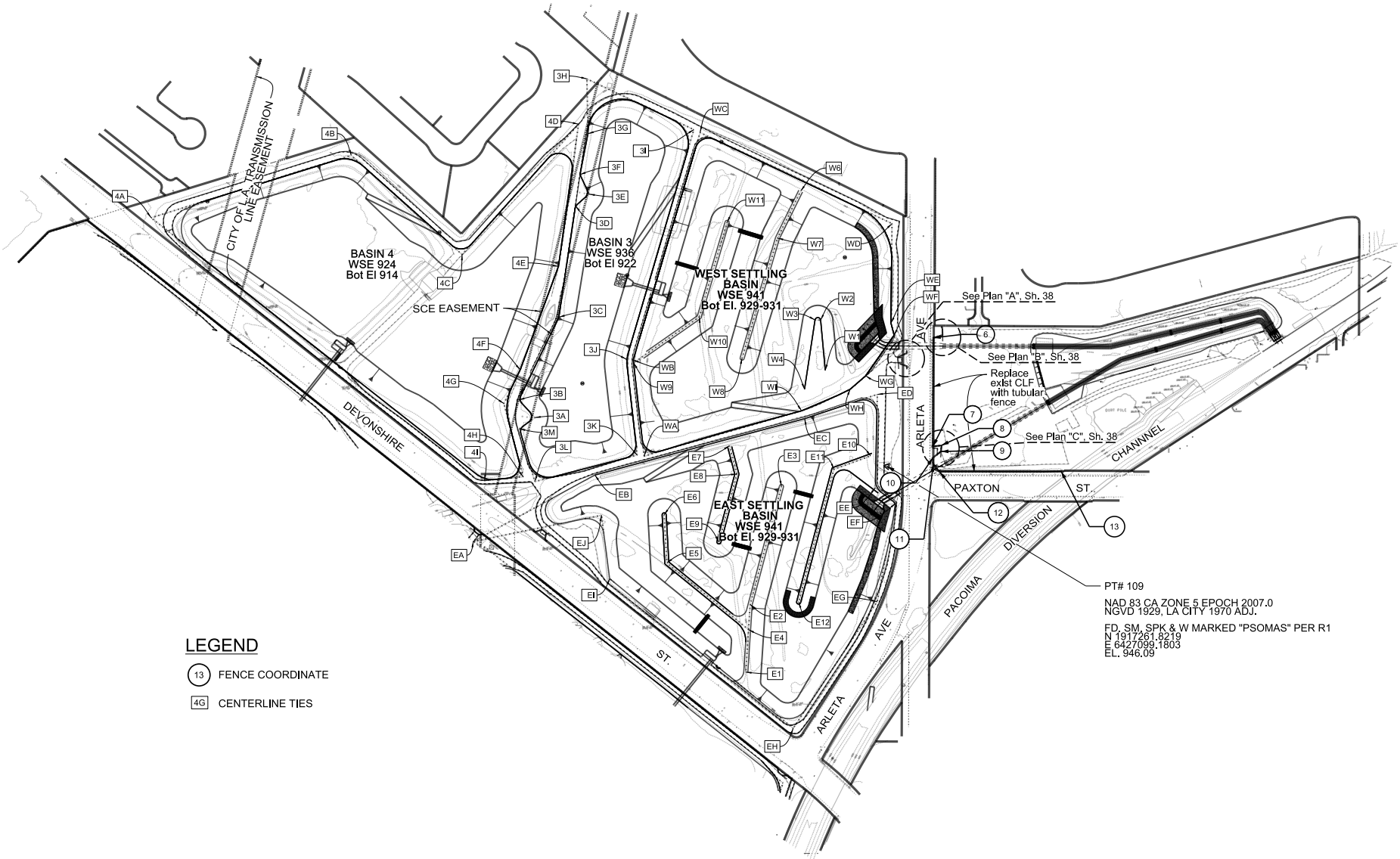
trucks, the proposed Project would generate a total of 478 daily truck trip ends during a typical weekday, including 268 trip ends to the Vulcan pits and 210 trip ends to Sunshine Canyon Landfill, plus 18 employee trip ends (496 trip ends total). However, in reality, a combination of 14-cy and 18-cy capacity trucks would be used, resulting in between 372 and 478 total daily truck round trips, plus 18 employee round trips. The environmental analyses presented in Section 3.0 of this Recirculated IS/MND assume a total of either 372 or 478 truck trips, plus 18 employee trips, whichever would be the worst case for that topical analysis. The specific assumptions applied in the analyses in Sections 3.3, Air Quality; 3.7, Greenhouse Gas Emissions; 3.12, Noise; and 3.16, Transportation/Traffic are presented in each respective section.

Fencing and Trail

As part of the proposed Project, the existing chain-link fencing would be removed and replaced with a tubular steel fence in two areas: (1) at the southern edge of the headworks, along portions of Arleta Avenue and Paxton Street where the County property meets the sidewalk; and (2) following the northern edge of the spreading grounds located south of Devonshire Street, from the westernmost point next Devonwood Park, then along Devonshire Street, and south along Pacoima Wash to Filmore Street. The south side of Devonshire Street was selected because this is the location of the East San Fernando Valley Nature Parkway. Fenced areas that are not open to the public would be locked. After completion of the proposed Project, the existing paved access road located along the west side of Pacoima Wash and outside the proposed tubular steel fence, between Devonshire Street and Filmore Street, would be opened to the public for use as a hiking and bike riding trail. County staff would maintain the bike path as part of routine maintenance of the Pacoima Spreading Grounds. Exhibits 2-12a and 2-12b, Proposed Steel Fence Details, and Exhibit 2-13, Proposed Bike Path Details, illustrate the location and schematic design of these Project components.

The inclusion of additional aesthetic and/or recreation features requested by the community has been considered by the LACFCD. The features determined to be feasible (i.e., fencing upgrade and opening the access road as a trail), based on the funding for the Project, have been included. As the proposed Project would be implemented with solely public funds, including those from State bond measures, the County of Los Angeles, and the LADWP, there are limits on the type and extent of features not directly related to the water-conservation objectives of the Project that can be included. Also, the headworks area has the potential to become a public open space/recreation amenity once the proposed Project has been completed, based on available of future funding and development of a site-specific design. As of the preparation of this Recirculated IS/MND, the LACFCD had begun the process of brainstorming potential amenities and prepared an initial, concept-level rendering of the headworks recreation area. However, the process of public and local agency outreach, incorporation of community feedback, and development of a formal design would take an extended period, on the order of one or more years. Because there are almost no details on the ultimate disposition of the headworks area post-Project such that environmental review would be feasible, this possible future use is considered speculative and is not addressed as part of this IS/MND. Delaying circulation of this Recirculated IS/MND to wait for the headworks recreation area to be designed, and therefore allow meaningful environmental review, is not the preferred option for the LACFCD both because of the urgency of implementing additional water-conservation projects throughout the County, including the Pacoima Spreading Grounds Project, and to avoid further passage of time between public circulation of the 2016 IS/MND and this Recirculation IS/MND.



Source: County of Los Angeles 2017

Proposed Steel Fence Details

Exhibit 2-12a

Pacoima Spreading Grounds Improvement Project

PSOMAS

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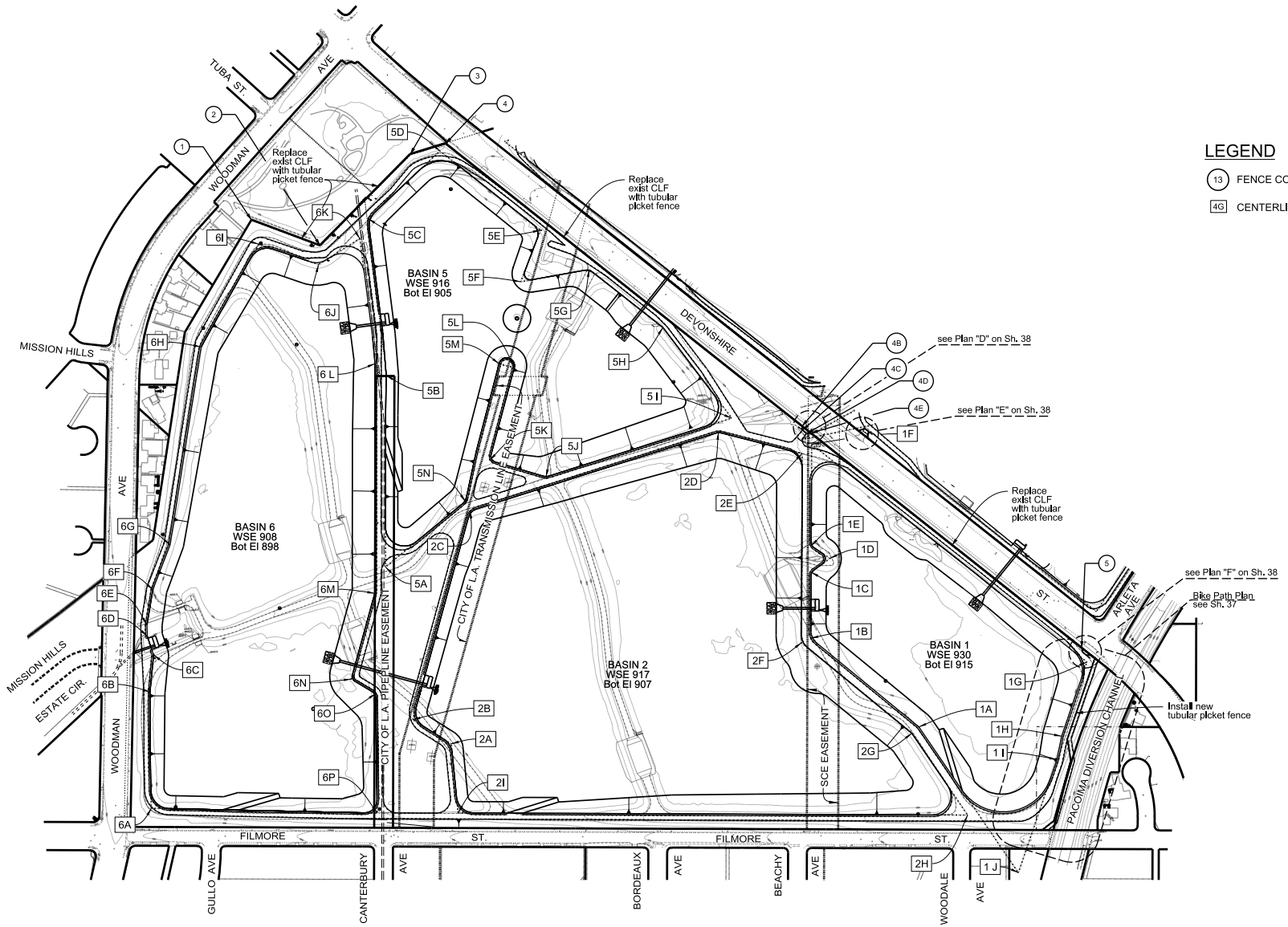

Source: County of Los Angeles 2017

Proposed Steel Fence Details

Exhibit 2-12b

Pacoima Spreading Grounds Improvement Project

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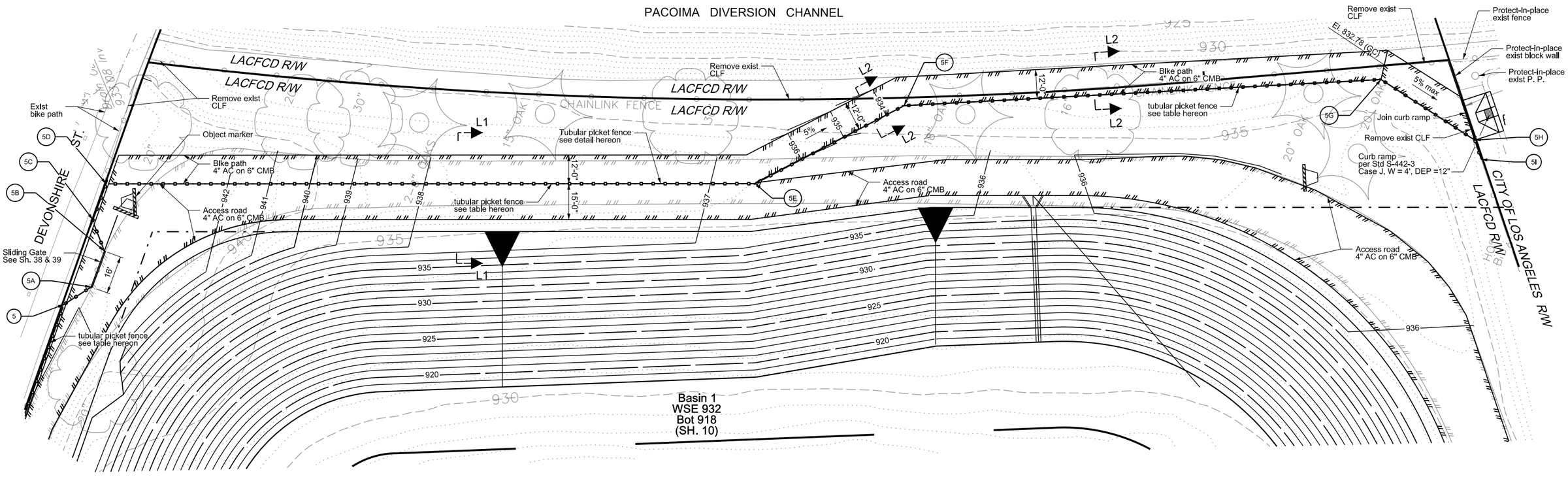
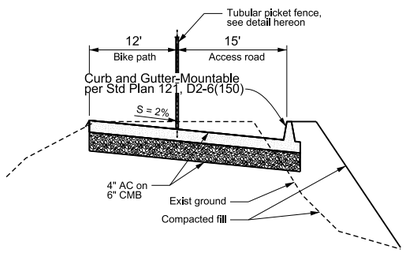
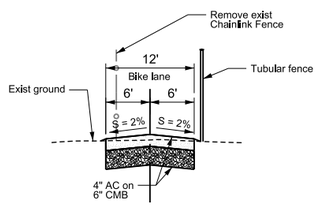




SECTION L1-L1
NOT TO SCALE

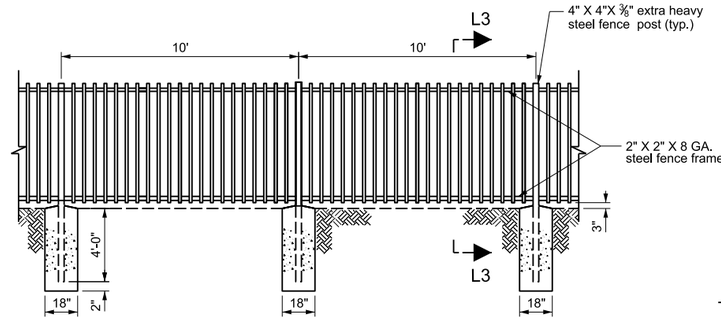


SECTION L2-L2
NOT TO SCALE

Tubular Fence Coordinates				
PI	Northing(Y)	Easting(X)	Distance (ft)	Remarks
5	1916378.29	6427428.37		Fence Post
5A	1916370.53	6427439.45	14	slide gate post
5B	1916371.13	6427455.48	16	slide gate post
5C	1916380.52	6427465.33	14	Fence post
5D	1916381.13	6427481.72	16	Fence post
5E	1916130.15	6427585.27	272	Fence post
5F	1916085.01	6427639.13	70	Fence post
5G	1915904.72	6427725.28	200	Fence post
5H	1915858.79	6427716.78	47	Fence post
5I	1915853.53	6427710.75	8	End Fence/ fence post

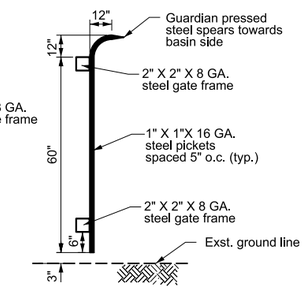
LEGEND

13 FENCE COORDINATE



TUBULAR PICKET FENCE (TYP.) (Sh. 6 & 7)
NOT TO SCALE

NOTE: ALL TUBULAR FENCE SHALL BE GALV. STEEL



SECTION L3-L3
NOT TO SCALE

NOTE: ALL TUBULAR FENCE SHALL BE GALV. STEEL

LEGEND

13 FENCE COORDINATE

Source: County of Los Angeles 2018

Proposed Bike Path Details

Exhibit 2-13

Pacoima Spreading Grounds Improvement Project

BonTerra PSOMAS

(01/10/2018 MMD) R:\Projects\!PAS\CoLADPW (DPW)\J272\Graphics\Approval_Draft_MND\ex_Proposed_BikePath_Details.pdf

D:\Projects\COLADPWJ272\Graphics\Approval_Draft_MND\ex_Proposed_BikePath_Details_20180109.ai

2.4.2 CONSTRUCTION SCENARIO

The proposed Project would be constructed in one phase lasting approximately 20 months, beginning in Fall 2019 to Spring 2021. As a part of the proposed Project, the LACFCD would perform a pre- and post-Project evaluation of the pavement on all haul routes and complete repairs as needed to return these roadways to the pre-Project condition upon the completion of the Project.

Construction activities would take place year-round and, as noted previously, the Pacoima Spreading Grounds would be off-line (i.e., not in use) for the duration including up to two wet seasons. All construction equipment staging and parking would be on site, generally within the headworks area located north of the Arleta Avenue and Paxton Street intersection. On-site equipment would move throughout the Project site as the Project progresses, and would remain within the Project site boundaries. The LACFCD recognizes that the Project's proximity to adjacent residences and other sensitive receptors is an important consideration and would prohibit use of the perimeter road of the spreading grounds for truck loading. Implementation of the Project would not involve use of a loudspeaker for on-site communications.

There are three gated access points on Arleta Avenue to the County-owned property– two into the headworks area and one into the spreading basins. There are also gated access points on the north and south sides of Devonshire Street. Construction workers would enter and exit the main parking area at the headworks via one or both of the gated access points on Arleta Avenue. There may be instances when construction crew and/or County staff access the spreading grounds directly and park within that portion of the site. In these instances, primary access would be either on Arleta Avenue or Devonshire Street. The spreading grounds access points on Devonshire Street would be used for haul trucks inbound and outbound from Sunshine Canyon Landfill and the Vulcan pits.

Although the City of Los Angeles permits construction activity from 7:00 AM to 9:00 PM Monday through Sunday, the LACFCD would plan to construct the Project during a maximum eight-hour period between the hours of 9:00 AM and 5:30 PM Monday through Friday for the 20-month construction period. Although it is the goal of the LACFCD to complete the Project and resume full operations as soon as feasible to facilitate groundwater infiltration, there would be no nighttime construction (which is prohibited by the City) and no construction activity on Saturday or Sunday, or federal holidays that occur on weekdays.

2.5 PROJECT OPERATION AND MAINTENANCE

Once the Project is complete, no long-term changes would occur to the regular inspection and maintenance operations at the Pacoima Spreading Grounds. As discussed previously, the proposed Project would increase the water-holding capacity of the spreading grounds from 530 af to 1,197 af, would increase the percolation rate of the spreading basins from 65 cfs to 142 cfs; would eliminate localized flooding on Arleta Avenue, and would improve the efficiency of operations and maintenance. The Project would result in an estimated additional 10,500 af/y of water conservation in a wet year, although the actual amount of water conservation would vary greatly from year to year.

The post-construction Project site would not include new water conservation facilities that were not present in the current condition. The existing water conservation infrastructure would be replaced and/or reconfigured to increase functionality and efficiency. Therefore, increased maintenance would not be needed. The Project would include installation of floodlights at the interbasin structures. These lights would be used when staff needs to be on site during a nighttime storm event. Each floodlight would be shielded and directed into the adjacent basin and not toward

surrounding land uses, and would not result in a new source of substantial nighttime light and glare. Because no long-term changes to operations at the Project site would occur, there would be no impacts related to any of the 18 CEQA topics addressed in Appendix G of the State CEQA Guidelines.

2.6 RELATED PROJECTS

This Recirculated IS/MND has considered other projects in the vicinity that would be constructed in proximity to the Project site or its haul routes and within the time frame of the proposed Project. Table 3-24, Related Projects List, in Section 3.16, Transportation/Traffic, of this IS/MND lists the related projects whose traffic is accounted for in the Revised Traffic Impact Study (TIS). Exhibit 3-8, Related Projects Map, illustrates the locations of the related projects near the Project site, the haul routes, and the sediment disposal locations.

Among the projects considered in the Revised TIS are LACFCD's approved Devil's Gate Reservoir Sediment Removal Project and the proposed Lopez Spreading Grounds Improvement Project. Also included are other known projects (i.e., related projects) that are proposed or approved, based on information on file at LACFCD, the County of Los Angeles Department of Regional Planning, and the City of Los Angeles Departments of Planning and Transportation. The following other LACFCD projects in the vicinity were also considered, and it was determined that construction of these projects would not overlap with the Project schedule and/or not involve vehicle trips through the same intersections: Tujunga Spreading Grounds Basin Enhancement, Pacoima Reservoir Sediment Removal, Pacoima Spreading Grounds Rubber Dam, Pacoima Spreading Grounds Soil Lead Remediation, and Bull Creek Water Conservation Pipeline.

It is noted the Revised TIS is also used in the preparation of the revised air quality, GHG emissions, and noise reports for this Recirculated IS/MND. As such, cumulative air quality, GHG emissions, and noise impacts are captured in their respective topical analyses in Section 3.0 of this IS/MND.

2.7 ANTICIPATED PROJECT APPROVALS

This Recirculated IS/MND is intended to serve as the primary environmental document pursuant to CEQA for actions associated with the Pacoima Spreading Grounds Improvement Project, including discretionary approvals required to implement the Project. In addition, this Recirculated IS/MND is the primary reference document for the formulation and implementation of a mitigation monitoring and reporting program for the Project, in accordance with Section 15097 of the State CEQA Guidelines.

As the governing board of LACFCD, the Board may adopt the Recirculated IS/MND if it finds, on the basis of the whole Project record, that there is no substantial evidence that the Project would have a significant effect on the environment. Discretionary actions subject to County of Los Angeles Board of Supervisors review and approval include, but are not limited to:

- Adoption of the Recirculated IS/MND
- Approval of the Pacoima Spreading Grounds Improvement Project

The Recirculated IS/MND also provides environmental information to responsible agencies, trustee agencies, and other public agencies that may be required to grant approvals and permits or coordinate with the County of Los Angeles as part of Project implementation. These agencies include, but are not limited to, those listed below. Table 2-2, Other Agency Approvals and Requirements, lists all agencies with permit or other approval authority over the Project.

TABLE 2-1
OTHER AGENCY APPROVALS AND REQUIREMENTS

Agency	Approval Required
State Water Resources Control Board	Construction General Permit
City of Los Angeles Bureau of Engineering	Utility Permit
City of Los Angeles Department of Transportation	Traffic Control Plan Approval for activity in the public right-of-way

SECTION 3.0 ENVIRONMENTAL CHECKLIST FORM

This section includes the completed CEQA environmental checklist form, as provided in Appendix G of the State CEQA Guidelines, as well as substantiation and clarification for each checklist response. The checklist form is used to assist in evaluating the potential environmental impacts of the Pacoima Spreading Grounds Improvement Project.

1. **Project Title:** Pacoima Spreading Grounds Improvement Project
2. **Lead Agency Name and Address:** Los Angeles County Flood Control District
   900 South Fremont Avenue, 11th Floor
   Alhambra, California 91803
3. **Contact Person:** Ernesto Rivera
   Los Angeles County Flood Control District
   SpreadingGrounds@dpw.lacounty.gov
4. **Project Location:** The Project site is the approximate 169-acre, County-owned Pacoima Spreading Grounds located at the intersection of Paxton Street and Arleta Avenue in the City of Los Angeles, Los Angeles County.
5. **Project Sponsor's Name and Address:** Los Angeles County Flood Control District
   900 South Fremont Avenue
   Alhambra, California 91803
6. **General Plan Designation:** Open Space and Public Facilities
7. **Zoning:** Open Space (OS-1XL-O) and Public Facilities (PF-1XL-O)
8. **Description of Project:** The Project would involve the deepening and reconfiguring of the existing spreading basins to the south of Arleta Avenue, removal and replacement of interbasin drainage structures, and the demolition and replacement of the existing concrete intake canal with four 54-inch-diameter reinforced concrete pipes to the north of Arleta Avenue. Implementation of the Project would increase the Pacoima Spreading Grounds' capacity from 530 acre-feet (af) to 1,197 af through removal of a clay layer present at depths of 12 to 24 feet. The Project would require excavation of approximately 1.6 million cubic yards (cy) of sediment, with an approximate export of 1.37 million cy to Sunshine Canyon Landfill and a combination of three nearby Vulcan Materials-owned pits over the course of the estimated 20-month construction period, with activity occurring during a maximum eight-hour period between the hours of 9:00 AM and 5:30 PM, Monday through Friday. Also, two segments of existing chain-link fence would be replaced with tubular steel fencing; and a segment of the existing paved access road located along the west side of Pacoima Wash would be opened for public use as a hiking and biking trail.
9. **Surrounding land uses and setting:** The Project site is situated in a densely developed, urban, and primarily single-family residential area. The Los Angeles community of Mission Hills is located generally to the northwest of the site, and the community of Arleta is located generally to the southeast. Also, park uses, commercial uses, and a church are located adjacent to the site.
10. **Other public agencies whose approval may be required:**
    - City of Los Angeles Bureau of Engineering
    - State Water Resources Control Board
    - City of Los Angeles Department of Transportation

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this Project, involving at least one impact that is a "Less Than Significant with Mitigation", as indicated on the following pages.

- ☐ Aesthetics
- ☒ Air Quality
- ☒ Cultural Resources
- ☐ Greenhouse Gas Emissions
- ☐ Hydrology and Water Quality
- ☐ Mineral Resources
- ☐ Population and Housing
- ☐ Recreation
- ☒ Tribal Cultural Resources
- ☒ Mandatory Findings of Significance
- ☐ Agriculture and Forest Resources
- ☒ Biological Resources
- ☐ Geology and Soils
- ☐ Hazards and Hazardous Materials
- ☐ Land Use and Planning
- ☒ Noise
- ☐ Public Services
- ☒ Transportation/Traffic
- ☒ Utilities and Service Systems

DETERMINATION:

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Ernest Rivera — Signature of Lead Agency Representative

11/8/18 — Date

Ernesto Rivera — Printed name

Los Angeles County Flood Control District — Agency

3.1 AESTHETICS	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant Impact	No Impact
Would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

IMPACT ANALYSIS

Regulatory Requirements

None required.

Impact Discussion

a) Would the project have a substantial adverse effect on a scenic vista?

No Impact. The City of Los Angeles *General Plan's* Conservation Element defines scenic views or vistas as "the panoramic public view access to natural features, including views of the ocean, striking or unusual natural terrain, or unique urban or historic features. Public access to these views is from park lands, private and publicly owned sites and public rights-of-way" (City of Los Angeles 2001). The Project site is an existing, engineered water conservation facility that is primarily surrounded by residential land uses. The site and surrounding area are generally flat; distant mountain views are available to the north and northeast. There are no ocean views, unusual terrain, or unique features that create or contribute to a scenic vista on or near the site. Neither short-term construction nor long-term operation of the Project would reduce or otherwise alter distant mountain views. Operation of the Project would cause no changes in views from or through the Project site. There would be no impact related to a scenic vista and no mitigation is required.

b) Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

No Impact. The nearest designated or eligible State scenic highway is the segment of I-210 running northwest from its intersection with the I-710, and located approximately 4.5 miles to the northeast at the nearest point (Caltrans 2013). The Transportation Element of the City of Los Angeles General Plan also designates scenic highways; the nearest City-designated scenic highway is a segment of West Sepulveda Boulevard located approximately 1.25 miles west of the site (City of Los Angeles 1999). The Project site, including during operation, would not be visible from I-210 or West Sepulveda Boulevard due to distance and intervening development.

Therefore, there would be no impact related to views from a scenic highway and no mitigation is required.

c) Would the project substantially degrade the existing visual character or quality of the site and its surroundings?

Less Than Significant Impact. Public views of the Project site are available primarily from adjoining roadways, including Arleta Avenue, Devonshire Street, Paxton Street, Filmore Street, and Woodman Avenue and from the adjacent Devonwood Park and Devonshire Arleta Park. The site is also visible from the private residences surrounding the Project site. With implementation of the proposed Project, views of the site would also be available from the new pedestrian/bicycle trail situated on the west side of a segment of the Pacoima Diversion Channel.

The visual character of the Project site would be altered by the presence of the construction equipment and activities for a period of approximately 20 months. Views of construction activities are common in dense urban areas such as the Project vicinity. Project construction would be mobile (i.e., moving around the site) and it would not involve cranes or other high-profile or unusually large equipment. Also, construction equipment would typically be below grade within the basins during excavation activities, reducing visibility from the adjacent, at-grade land uses.

Implementation of the Project would involve the removal of existing trees within the headworks area where the canal infrastructure would be installed and within the spreading grounds where they would interfere with the proposed interbasin structures. Consistent with the LACFCD Interim Tree Removal and Replacement Policy (RR BIO-1), all trees removed would be replaced at a 1:1 ratio (i.e., one removed, one replaced) or higher in a location near the existing location, unless this is not feasible, in which case the replacement tree can be planted in an alternate location within the Pacoima Spreading Grounds site. Therefore, there would be no net loss of trees in the Project site.

With Project implementation, the spreading basins would appear essentially the same as the existing condition, as no new facilities would be constructed that raise the profile or visual prominence of the facility. The headworks area would have a different visual character with the Project due to the removal of the concrete channel, replacement of the canal with underground pipelines, and creation of a new earthen surface. This change would generally be considered a positive effect due to the creation of an earthen (i.e., naturalized) surface. Finally, the replacement of steel fencing and converting the existing access road located along the west side of Pacoima Wash to a public hiking and biking path are also considered positive changes to the visual character of the site. Therefore, the Project, including during operation, would not be considered to substantially degrade the visual character of the site or surroundings. There would be a less than significant impact and no mitigation is required.

d) Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Less Than Significant Impact. Construction-related activities would not introduce new sources of light or glare to the Project site or the surrounding area. No construction activities are proposed during the nighttime hours beyond 5:30 PM. However, the sun can set as early as 5:00 PM in the winter, and illumination may be briefly required during these times. On-site construction lighting would be limited to the amount needed to perform the task in progress and would be focused downward to limit spillover off the Project site and ensure nearby sensitive receptors are not adversely affected. Therefore, intermittent construction lighting is not considered a substantial source of light or glare.

As discussed in Section 2.0, the Project would include installation of floodlights at the interbasin structures. These lights would be used when staff needs to be on site during a nighttime storm event (e.g., potential flooding or emergency situations). Also, each floodlight would be shielded and directed into the adjacent basin, and not towards surrounding land uses. The infrequent use of one or more floodlights, which would be shielded and directed away from surrounding receptors, would not be considered a new source of substantial light and glare. Therefore, there would be a less than significant impact and no mitigation is required.

MITIGATION MEASURES

There would be no significant impacts related to aesthetics; therefore, no mitigation measures are required.

3.2 AGRICULTURE AND FOREST RESOURCES	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant Impact	No Impact
Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220[g]), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104[g])?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

IMPACT ANALYSIS

Regulatory Requirements

None required.

Impact Discussion

a) Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

No Impact. The Project site and surrounding area do not support any agricultural uses. The City of Los Angeles land use designations for the site include Open Space and Public Facilities and the zoning includes OS-1XL-O (Open Space) and PF-1XL-O (Public Facilities) (City of Los Angeles 2015b). Review of maps by the California Department of Conservation Farmland Mapping and Monitoring Program shows that the site is not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (FMMP 2015). Accordingly, there are no Williamson Act contracts applicable to the Project site. Therefore, no conversion of farmland or conflict with agricultural zoning would occur with the Project. Because the Project is not growth-inducing, it would not indirectly result in conversion of agriculture. There would be no impact to agriculture resources due to construction and operation of the Project.

b) Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?

No Impact. As discussed under Threshold 3.2(a), there are no Williamson Act contracts applicable to the Project site and the site is not zoned for agricultural use. There would be no impact to agriculture resources due to construction and operation of the Project.

c) Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code, Section 12220[g]), timberland (as defined by Public Resources Code, Section 4526), or timberland zoned Timberland Production (as defined by Government Code, Section 51104[g])?

No Impact. The Project site and surrounding area do not support any forest lands or timberland production activities. The City of Los Angeles land use designations for the site include Open Space and Public Facilities and the zoning includes OS-1XL-O (Open Space) and PF-1XL-O (Public Facilities) (City of Los Angeles 2015b). Therefore, no conversion of forest land or conflict with forest zoning would occur with the Project. Because the Project is not growth-inducing, it would not indirectly result in conversion of forest lands. There would be no impact forest resources due to construction and operation of the Project.

d) Would the project result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. As discussed under Threshold 3.2(c), there are no forest lands on the Project site or surrounding areas, and the Project would not result in the loss or conversion of forest lands. There would be no impact forest resources due to construction and operation of the Project.

e) Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?

No Impact. The Project site and surrounding area do not support any agricultural uses, forest lands, or timberland production activities. The City of Los Angeles land use designations for the site include Open Space and Public Facilities and the zoning includes OS-1XL-O (Open Space) and PF-1XL-O (Public Facilities) (City of Los Angeles 2015b). Review of maps by the California Department of Conservation Farmland Mapping and Monitoring Program shows that the site is not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (FMMP 2015). Accordingly, there are no Williamson Act contracts applicable to the Project site.

Therefore, no conversion of farmland or forest land or conflict with agricultural or forest zoning would occur with the Project. Because the Project is not growth-inducing, it would not indirectly result in conversion of agriculture or forest lands. There would be no impact to agriculture and forest resources due to construction and operation of the Project.

MITIGATION MEASURES

There would be no impacts to agriculture and forest resources; therefore, no mitigation measures are required.

3.3 AIR QUALITY	**Potentially Significant Impact**	**Less than Significant with Mitigation**	**Less than Significant Impact**	**No Impact**
Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☒	☐	☐
b) Violate any air quality standard or contribute substantially to an existing or Projected air quality violation?	☐	☒	☐	☐
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is in non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☒	☐	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☒	☐	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐

Information in this section is derived from the *Revised Air Quality, Greenhouse Gas Emissions, and Health Risk Assessment Impact Analysis* (Revised Air Quality Report) dated October 2017 and prepared by Vista Environmental (Vista 2017a). This report is provided in its entirety in Appendix A.

IMPACT ANALYSIS

Regulatory Setting

The Project site is located in the City of Los Angeles and within the Los Angeles County portion of the South Coast Air Basin (SoCAB). For air quality regulation and permitting, it is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). Both the U.S. Environmental Protection Agency (USEPA) and the State of California (State) have established health-based Ambient Air Quality Standards (AAQS) for air pollutants, which are known as “criteria pollutants”. The AAQS are designed to protect the health and welfare of the populace within a reasonable margin of safety. The federal and State AAQS are shown in Table 3-1.

TABLE 3-1
CALIFORNIA AND NATIONAL AMBIENT AIR QUALITY STANDARDS

Pollutant	Averaging Time	California Standards	Federal Standards	
			Primary[a]	Secondary[b]
O_3	1-Hour	0.09 ppm	–	–
	8-Hour	0.070 ppm	0.075 ppm	Same as Primary
PM10	24-Hour	50 µg/m^3	150 µg/m^3	Same as Primary
	Annual	20 µg/m^3	–	Same as Primary
PM2.5	24-Hour	–	35 µg/m^3	Same as Primary
	Annual	12 µg/m^3	12 µg/m^3	Same as Primary
CO	1-Hour	20 ppm	35 ppm	–
	8-Hour	9.0 ppm	9 ppm	–
NO_2	Annual	0.030 ppm	0.053 ppm	Same as Primary
	1-Hour	0.18 ppm	0.100 ppm	–
SO_2	24-Hour	0.04 ppm	–	–
	Annual	–	0.14 ppm	–
	1-Hour	0.25 ppm	75 ppb	–
Lead	30-day Avg.	1.5 µg/m^3	–	–
	3-month Rolling Avg.	–	0.15 µg/m^3	
Visibility Reducing Particles	8-Hour	Extinction coefficient of 0.23 per km – visibility ≥ 10 miles when relative humidity ≤ 70%	**No Federal Standards**	
Sulfates	24-Hour	25 µg/m^3		

O_3: ozone; ppm: parts per million; PM10: respirable (i.e., able to be inhaled) particulate matter with a diameter of 10 microns or less; µg/m^3: micrograms per cubic meter; PM2.5: fine particulate matter with a diameter of 2.5 microns or less; CO: carbon monoxide; NO_2: nitrogen dioxide; SO_2: sulfur dioxide; ppb: parts per billion; km: kilometer; –: No Standard.

[a] *National Primary Standards:* The levels of air quality necessary, within an adequate margin of safety, to protect the public health.
[b] *National Secondary Standards:* The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

Note: More detailed information in the data presented in this table can be found at the CARB website (www.arb.ca.gov).

Source: Vista 2017a (Appendix A).

Regional air quality is defined by whether the area has attained or not attained State and federal air quality standards, as determined by air quality data from various monitoring stations. Areas that are considered in “nonattainment” for federal standards must prepare and submit a State Implementation Plan (SIP) that demonstrates the means to bring the region into “attainment”. The SIP must integrate federal, State, and local components and regulations to identify specific measures to reduce pollution, using a combination of performance standards and market-based programs within the timeframe identified in the SIP. When an area has been reclassified from nonattainment to attainment for a federal standard, the status is identified as “maintenance”, and there must be a plan and measures established that will keep the region in attainment for the following ten years. Table 3-2 summarizes the attainment status of the SoCAB for the criteria pollutants.

TABLE 3-2
DESIGNATIONS OF CRITERIA POLLUTANTS IN THE SOUTH COAST AIR BASIN

Pollutant	State	Federal
O_3 (1-hour; State only)	Nonattainment	Extreme Nonattainment
O_3 (8-hour)		
PM10	Nonattainment	Attainment (Maintenance)
PM2.5	Nonattainment	Nonattainment (Serious)
CO	Attainment	Attainment (Maintenance)
NO_2	Attainment	Attainment (Maintenance)
SO_2	Attainment	Attainment
Lead	Attainment	Nonattainment (Partial)

O_3: ozone; PM10: respirable particulate matter with a diameter of 10 microns or less; PM2.5: fine particulate matter with a diameter of 2.5 microns or less; CO: carbon monoxide; NO_2: nitrogen dioxide; SO_2: sulfur dioxide.

Source: Vista 2017a (Appendix A).

Toxic Air Contaminants

Toxic air contaminant (TAC) is a term defined under the California Clean Air Act and consists of the same substances that are defined as Hazardous Air Pollutants (HAPs) in the Federal Clean Air Act. In order to determine the SoCAB-wide risks associated with major airborne carcinogens, the SCAQMD conducted the *Multiple Air Toxics Exposure Study* (MATES). According to the SCAQMD's MATES-III study, the northern portion of the Project site has an estimated cancer risk of 630 in 1 million and the southern portion of the Project site has an estimated cancer risk of 749 in one million. In comparison, the average cancer risk for the SCAQMD portion of Los Angeles County is 912 in one million. The primary sources of TACs in the study area are from diesel emissions from trucks operating on SR-170 and I-5. The Revised Air Quality Report prepared for the Project addresses diesel emissions from operation of on-site construction equipment and haul trucks.

In order to provide a perspective of risk, it is often estimated that the incidence in cancer over a lifetime for the U.S. population will affect 25 percent of all persons, or a risk of about 250,000 per million persons. The MATES-III study referenced a Harvard Report on Cancer Prevention, which estimated that, of cancers associated with known risk factors, about 30 percent were related to tobacco, about 30 percent were related to diet and obesity, and about 2 percent were associated with environmental pollution related exposures that includes hazardous air pollutants (i.e., TACs).

Sensitive Receptors

The sensitive receptors near each portion of the Project site are detailed below, and the approximate distance to each receptor is based on the distance from the proposed disturbed areas, which are not necessarily the edge of the spreading grounds property, to the nearest structure for homes and the church and the nearest use area for parks (Vista 2017a). Disturbance refers to excavation, vehicle traffic, and other construction activity that would disturb the ground surface. The Project would disturb most, but not all, of the site; there are areas around the perimeter of the spreading basins that would not be disturbed by Project implementation.

Consistent with Title 13 of the *California Code of Regulations* Section 2485, "Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling", where the perimeter road is 100 feet or less from a home, there must not be any vehicle queuing activity with idling

lasting more than five minutes. It is noted that the analyses of all topical areas that are relative to the presence of sensitive receptors, such as traffic, noise, and air quality, are not based on temporal changes in the day-to-day population in the surrounding area, such as whether it is a daytime or nighttime population. Air quality is assessed as though the receptor(s) are present at all times of the day.

Project Site Receptors

West Settling Basin

As shown on Exhibit 2-4, the proposed West Settling Basin is located on the northern side of the Project site and is bound by Arleta Avenue to the northeast. Surrounding roadways are shown on Exhibit 2-2. The nearby sensitive receptors consist of single-family homes located on the south side of San Jose Street as near as 40 feet north of the proposed improvements and single-family homes located on the northeast side of Arleta Avenue as near as 130 feet northeast of the proposed improvements to the West Settling Basin.

East Settling Basin

The proposed East Settling Basin is located on the eastern side of the Project site and is bound by Arleta Avenue to the northeast and Devonshire Street to the south. The nearby sensitive receptors consist of Devonshire Arleta Park, which is located as near as 220 feet east of the proposed improvements and single-family homes located on the east side of Pacoima Diversion Channel as near as 280 feet east of the proposed improvements to the East Settling Basin.

Individual Basins

The proposed Basin 1 is located on the eastern corner of the Project site and is bound by Devonshire Street to the north, Pacoima Diversion Channel to the east and Filmore Street to the southeast. The nearby sensitive receptors consist of Devonshire Arleta Park, which is located as near as 220 feet northeast of the proposed improvements; single-family homes located on the east side of Pacoima Diversion Channel as near as 170 feet east of the proposed improvements; and single- and multi-family homes located on the southeast side of Filmore Street as near as 125 feet southeast of the proposed improvements to Basin 1.

The proposed Basin 2 is located on the southeastern side of the Project site and is bound by Devonshire Street to the north and Filmore Street to the southeast. The nearby sensitive receptors consist of single-family homes located on the southeast side of Filmore Street as near as 120 feet southeast of the proposed improvements to Basin 2.

The proposed Basin 3 is located on the northern side of the Project site and is bound by the West Settling Basin to the east and the SCE Easement to the west. The nearby sensitive receptors consist of single-family homes located on the south side of San Jose Street as near as 70 feet north of the proposed improvements and single-family homes on the east side of Hiawatha Street as near as 70 feet west of the proposed improvements to Basin 3.

The proposed Basin 4 is located on the northwestern corner of the Project site and is bound by the SCE Easement to the east and Devonshire Street to the south. The nearby sensitive receptors consist of single-family homes located on the south side of Hiawatha Street as near as 50 feet north of the proposed improvements and single-family homes at the terminus of Blackhawk Street as near as 60 feet west of the proposed improvements to Basin 4.

The proposed Basin 5 is located on the western side of the Project site and is bound by Devonshire Street to the north and Devonwood Park to the west. The nearby sensitive receptors consist of Devonwood Park, located as near as 30 feet west of the proposed improvements, and single-family homes located on the north side of Devonshire Street as near as 135 feet north of the proposed improvements to Basin 5.

The proposed Basin 6 is located on the southwest corner of the Project site and is bound by Devonwood Park to the north, Woodman Avenue to the southwest, and Filmore Street to the southeast. The nearby sensitive receptors consist of Devonwood Park, located as near as 40 feet north of the proposed improvements; the New Apostolic Church located on the east side of Woodman Avenue as near as 30 feet west of the proposed improvements; and single-family homes located on the east side of Woodman Avenue as near as 30 feet west of the proposed improvements to Basin 6.

Pacoima Diversion Channel Intake Canal

The proposed improvements to the Pacoima Diversion Channel's intake canal are located on the northeast corner of the Project site and bound by the Pacoima Diversion Channel to the east and Arleta Avenue to the southwest. The nearby sensitive receptors consist of single-family homes located on the east side of Minnehaha Street as near as 40 feet west of the proposed improvements to the diversion channel intake.

Haul Route Receptors

There are sensitive receptors nearby the following surface streets (i.e., not freeways) that would be utilized by the haul trucks traveling on one or more of the haul routes: Paxton Street, Laurel Canyon Boulevard, Branford Street, Glenoaks Boulevard, Osborne Street, Foothill Boulevard, San Fernando Road, and Devonshire Street. The distance and type of sensitive receptors on these streets are described below. Any other streets along the three haul routes are populated with industrial or other non-sensitive land uses. The receptors along each of these streets is described below:

- Paxton Street – single- and multi-family homes that are located as near as 20 feet from the travel lanes; Ritchie Valens Park, located as close as 15 feet from the travel lanes; and Telfair Elementary School, located as near as 25 feet from the travel lanes of Paxton Street.
- Laurel Canyon Boulevard – multi-family and mobile homes as near as 25 feet from the travel lanes and Fernangeles Recreation Center, located as near as 15 feet from the Laurel Canyon Boulevard travel lanes.
- Branford Street – single- and multi-family homes as near as 25 feet from the Branford Street travel lanes.
- Glenoaks Boulevard – mobile homes as near as 20 feet from the Glen Oaks Boulevard travel lanes.
- Osborne Street – multi-family homes as near as 15 feet from the Osborne Street travel lanes.
- Foothill Boulevard – multi-family homes as near as 25 feet from the Foothill Boulevard travel lanes.
- San Fernando Road – single- and multi-family homes as near as 110 feet from the travel lanes; and Pacifica Hospital of the Valley located as near as 180 feet from the street's travel lanes. For the portion of San Fernando Road near Sunshine Canyon Landfill, the

nearby sensitive receptors consist of single-family homes as near as 90 feet from the travel lanes.

Regulatory Requirements

RR AQ-1 All construction activities shall be conducted in compliance with all applicable South Coast Air Quality Management District (SCAQMD) rules and permitting requirements, including but not limited to:

- SCAQMD Rule 402, Nuisance, which states that a Project shall not "discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property". Rule 402 refers to air contaminants or other material being discharged into the air, but not generation of noise and vibration.
- SCAQMD Rule 403, Fugitive Dust, for controlling fugitive dust and avoiding nuisance. Compliance with this rule will reduce short-term particulate pollutant emissions. Contractor compliance with Rule 403 requirements shall be mandated in the contractor's specifications. This would include, but not be limited to:
  - Preparing and implementing a Fugitive Dust Control Plan.
  - Signage would be installed around the Project site that provides a contact person and phone number to call with dust-related complaints and the phone number of the SCAQMD compliance office. The signage would remain and be maintained for the length of the Project.
  - Watering exposed surfaces at least three times per day, or more during windy conditions. High wind conditions are defined under Rule 403 as instantaneous wind speeds that exceed 25 miles per hour.
  - Non-toxic soil stabilizers/dust suppressants that create a crust on the surface to be resistant to wind erosion would be selected and applied consistent with Rule 403.
  - Traffic speeds on unpaved roads would be restricted to no more than 15 miles per hour.
  - One or more devices would be installed at ingress/egress points to remove dirt from vehicle tires and undercarriage prior to leaving the site.
  - All materials to be loaded for export would be pre-watered.
  - All haul trucks would either be covered (with on board tarp) or maintain at least two feet of freeboard between the top of the soil and the edge of the truck bed.

Impact Discussion

a) Would the project conflict with or obstruct implementation of the applicable air quality plan?

Less than Significant Impact with Mitigation. The Project is located in Los Angeles County, in the SoCAB, where the SCAQMD is the agency principally responsible for comprehensive air pollution control. A regional agency, the SCAQMD works directly with the Southern California Association of Governments (SCAG), County transportation commissions, and local governments and cooperates actively with all federal and State government agencies. The SCAQMD develops rules and regulations; establishes permitting requirements for stationary sources; inspects emissions sources; and enforces such measures through educational programs or fines, when necessary.

The SCAQMD is directly responsible for reducing emissions from stationary (area and point), mobile, and indirect sources. It has responded to this requirement by preparing a sequence of Air Quality Management Plans (AQMPs). An AQMP establishes a program of rules and regulations directed at attaining the National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS). The regional plan applicable to the proposed Project is the SCAQMD's AQMP. The *Final 2016 Air Quality Management Plan* (2016 AQMP) was adopted by the SCAQMD Board on March 3, 2016 and was adopted by CARB on March 23, 2017 for inclusion into the California State Implementation Plan (SIP). The 2016 AQMP is the current Air Quality Management Plan.

The SCAQMD CEQA Handbook states that "New or amended GP[4] Elements (including land use zoning and density amendments), Specific Plans, and significant projects must be analyzed for consistency with the AQMP". Strict consistency with all aspects of the plan is usually not required. A project should be considered to be consistent with the AQMP if it furthers one or more policies and does not obstruct other policies. The SCAQMD's CEQA Handbook identifies two key indicators of consistency, which are evaluated below:

(1) Whether the project will result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP.

As shown in Threshold 3.3(b) below, with implementation of mitigation measures (MMs) AQ-1 and AQ-2, short-term (construction-related) emissions of criteria air pollutants would result in less than significant impacts based on SCAQMD thresholds of significance for regional, local, and TAC emissions. Operation of the Project would not generate any additional air pollutant emissions compared to the existing conditions.

(2) Whether the project will exceed the assumptions in the AQMP or increments based on the year of project buildout and phase.

The emphasis of this criterion is to ensure that the analyses conducted for the Project are based on the same forecasts as the AQMP. The AQMP is developed through use of the planning forecasts provided in SCAG's *2016 Regional Transportation Plan/Sustainable Communities Strategy* (RTP/SCS) and *2017 Federal Transportation Improvement Program* (FTIP). The RTP/SCS is a major planning document for the regional transportation and land use network within Southern California. The RTP/SCS is a long-range plan that is required by federal and state requirements placed on SCAG and is updated every four years. The FTIP provides long-range

[4] General Plan

planning for future transportation improvement projects that are constructed with State and/or federal funds within Southern California. Local governments are required to use these plans as the basis of their plans for the purpose of consistency with applicable regional plans under CEQA.

For this project, the City of Los Angeles Land Use Plan defines the assumptions that are represented in the AQMP. The Project would not change the current use as a spreading ground and is consistent with the current land use designation and zoning. Therefore, construction and operation of the Project would not exceed the AQMP assumptions for the Project site, based on applicable local and regional planning documents, and is found to be consistent with the AQMP for the second criterion.

Therefore, with implementation of MMs AQ-1 and AQ-2, there would be a less than significant impact related to conflict with the 2016 AQMP.

b) Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?

Less than Significant Impact with Mitigation. The SCAQMD establishes significance thresholds to assess the regional and local impact of Project-related air pollutant emissions in the SCAQMD. A project with emissions rates below these thresholds is considered to have a less than significant effect on air quality. In addition, a Health Risk Analysis (HRA) was prepared for the Project to determine the impact of the TAC emissions during construction. These analyses are summarized below.

Construction Impacts – Regional Air Quality

The SCAQMD has established methods to quantify air emissions associated with construction activities such as air pollutant emissions generated by operation of on-site construction equipment; fugitive dust emissions related to earthwork activities; and mobile (tailpipe) emissions from construction worker vehicles and haul/delivery truck trips. Fugitive dust is the common term that refers collectively to PM10 and PM2.5. Emissions vary from day to day, depending on the level of activity; the specific type of construction activity occurring; and, for fugitive dust, prevailing weather conditions. Emissions were calculated using the California Emissions Estimator Model (CalEEMod) Version 2016.3.1 emissions inventory model. CalEEMod is a computer program published by the SCAQMD and is the approved software for estimating anticipated emissions associated with land development projects in California. CalEEMod has separate databases for specific counties and air districts, and the Los Angeles County database was used for the Project. The CalEEMod program uses the EMFAC2014 computer program to calculate the emission rates specific for Los Angeles County for construction-related employee vehicle trips and the OFFROAD2011 computer program to calculate emission rates for heavy truck operations. EMFAC2014 and OFFROAD2011 are computer programs generated by CARB that calculates composite emission rates for vehicles.

The SCAQMD defines thresholds of maximum daily emissions of criteria pollutants based on regional (i.e., the SoCAB) air quality conditions on a long-term, ongoing basis and their relationship to the SCAQMD's 2016 AQMP, discussed above and which is updated every three years.

A construction-period mass emissions inventory was compiled based on an estimate of construction equipment as well as daily schedule and activity assumptions, as detailed below. The mass emissions SCAQMD thresholds are based on the rate of emissions (i.e., pounds of pollutants emitted per day). Air quality emissions were modeled for four different sources: on-site equipment, worker trips, demolition truck trips, and haul truck trips. The types and quantities of

on-site construction equipment used in air quality modeling with CalEEMod for criteria pollutants is intended to represent a reasonable worst-case scenario of continuous activity (over eight hours) with a combination of equipment that could occur all at one time, to estimate the maximum daily emissions. It is noted that, in reality, while the total work day is eight hours, there would not generally be continuous activity with a combination of equipment for this period. Construction activities involving equipment emissions would occur in an intermittent fashion (i.e., with engines on and off) and in varying locations over the course of a work day. Vehicle trips are modeled based on the actual number of trips that would occur if construction activity were evenly divided over the course of the project, or the same every day, and are based on the *Revised Traffic Impact Analysis* (Revised TIS) prepared for the Project and dated July 2017 (Appendix F). The modeling parameters are not a specific day-to-day prescription for equipment but represent the modeled scenario intended to capture the worst-case emissions. The combination of equipment and intensity of activity varies on construction sites on a daily level, but would be within the parameters of the maximum emissions.

For the proposed Project, the category of "User Defined Industrial" in CalEEMod was selected because it is the most accurate representation of the Project's activity. Also, among the Industrial category of land uses in CalEEMod, User Defined Industrial was selected as it provides the most flexibility in model parameters and ability to change defaults to most accurately represent what is projected to occur on site. The input of 169 acres represents the total number of acres that would be disturbed over the course of the Project for purposes of the air quality modeling. This is a conservative input, as not all of the 169-acre site would be disturbed, but gives a worst case outcome in the model.

The CalEEMod data sheets from the 2016 IS/MND show application of Climate Zone 12, which represents the climate/meteorological conditions found in zip code 91352 (the zip code of the community of Sun Valley in the City of Los Angeles). Climate Zones in CalEEMod are selected in addition to the climate defaults and are looked up by zip code.

The Project would be constructed in one phase lasting approximately 20 months, beginning in Fall 2019. The Revised Air Quality Report was prepared when the Project was expected to begin in late 2018. The results of the Revised Air Quality Report remain applicable because of the short time period the anticipated Project start has pushed forward and because air quality emissions are assumed to be improved with time, due to ever-improving equipment and vehicle emission levels. The Contractor specifications would prescribe construction equipment based on a minimum Tier, or efficiency, that must be used throughout the Project. For the year 2018, the CalEEMod assumes that the on-site equipment will average at approximately a Tier 3 level; however, that may be achieved with a mixture of Tier 0, 1, 2, 3, or 4 equipment[5]. The CalEEMod model utilizes the worst-case engine Tier level allowed under CARB's regulations for off-road diesel equipment.

The model assumes application of SCAQMD Rule 403, Fugitive Dust (RR AQ-1). The LACFCD is committed to appropriately managing dust generation during the whole construction period. All feasible measures consistent with SCAQMD Rule 403 would be implemented throughout the Project to reduce fugitive dust. Based on public comment, it is noted that the SCAQMD Rule 403 does refer to property lines; however, it is in reference to the location at which visible dust is not permitted and can create a nuisance (SCAQMD Rule 402).

[5] Tiers 0 through 4 refer to off-road diesel-engine equipment with specified levels (i.e., tiers) of emissions standards for PM10 and NOx adopted by CARB, with more stringent emissions standards adopted over time corresponding to a higher tier number.

This analysis assumes that the peak day on-site equipment during construction would consist of the simultaneous operation of two bulldozers, two excavators, one sediment shaker/sifter, three water trucks, and one street sweeper. The bulldozers, excavators, and sediment shaker were modeled as operating eight hours per day and the water trucks and street sweeper were modeled as operating four hours per day. Either a mounted impact hammer or hoe-ram would also be utilized during the demolition of the existing intake structure; however, the hoe-ram would most likely be mounted on an excavator that has been accounted for above, so no separate equipment was modelled for the hoe-ram.

Based on the Revised TIS prepared for the Project, the export of approximately 1.37 million cy of sediment would generate either 478 round trips per day with 14-cy capacity trucks or 372 round trips per day with 18-cy capacity trucks, and would generate approximately 18 worker trips per day, based on a 5-day work week schedule with a maximum eight-hour day between the hours of 9:00 AM to 5:30 PM. To account for the fugitive dust emissions that would occur from the segment of on-site dirt road travel, estimated to be an average $^1/_8$-mile of each haul truck trip by the LACFCD, the model was set to 97.8 percent paved roads and 2.2 percent unpaved roads with a moisture content of 12 percent and a mean vehicle speed of 15 miles per hour. In other words, the $^1/_8$-mile refers to the portion of each haul truck trip that would occur on dirt roads within the spreading grounds, rather than paved roads. This detail was important to capture the greater amount of dust generated by driving on dirt roads than paved roads.

Finally, the Project would include the removal of approximately 614 cy of concrete from the demolition of the existing intake canal, interbasin structures, weirs, and other existing structures which would generate a total of approximately 77 haul truck trips traveling 8 miles to Sunshine Canyon Landfill. As the most conservative scenario, these haul truck trips were modeled as occurring all in one day.

The maximum daily criteria pollutant emissions from Project construction with the use of either 14-cy or 18-cy capacity haul trucks are shown in Table 3-3, Estimated Maximum Daily Construction Emissions Prior to Mitigation. As shown, the maximum daily construction emissions would exceed the SCAQMD threshold for NOx for the worst-case condition. All other criteria pollutants would be below the SCAQMD thresholds. This represents a significant regional air quality impact.

Therefore, MM AQ-1 would require all off-road equipment greater than 50 horsepower operated on the Project site to meet Tier 4 Final emissions standards. The LACFCD would require Tier 4 off-road equipment as part of their standard specifications. The maximum daily construction emissions with implementation of MM AQ-1 are shown in Table 3-4, Estimated Maximum Daily Construction Emissions with Mitigation (MM AQ-1). As shown, with implementation of MM AQ-1, all emissions would be below the SCAQMD thresholds.

TABLE 3-3
ESTIMATED MAXIMUM DAILY CONSTRUCTION EMISSIONS
PRIOR TO MITIGATION (LBS/DAY)

	VOC	NOx	CO	SOx	PM10	PM2.5
On-Site Equipment	4.90	49.67	27.01	0.06	7.29	4.85
Worker Trips	0.11	0.08	0.97	0.00	0.20	0.06
Demolition Haul Trucks	0.00	0.04	0.01	0.00	0.03	0.00
14-cy Haul Trucks	2.23	36.89	19.00	0.10	42.09	8.50
18-cy Haul Trucks	1.84	66.02	13.63	0.13	26.34	5.02
Total Emissions*	**6.85**	**115.81**	**46.99**	**0.19**	**49.61**	**13.41**
SCAQMD Thresholds	*75*	*100*	*550*	*150*	*150*	*55*
Exceeds Threshold?	**No**	**Yes**	**No**	**No**	**No**	**No**

lbs/day: pounds per day; VOC: volatile organic compound(s); NOx: nitrogen oxides; CO: carbon monoxide; SOx: sulfur oxides; PM10: respirable particulate matter with a diameter of 10 microns or less; PM2.5: fine particulate matter with a diameter of 2.5 microns or less; cy: cubic yards; SCAQMD: South Coast Air Quality Management District.

* Based on highest of either 14-cy or 18-cy haul truck emissions for each pollutant.

Source: Vista 2017a (Appendix A).

TABLE 3-4
ESTIMATED MAXIMUM DAILY CONSTRUCTION EMISSIONS
WITH MITIGATION (MM AQ-1)(LBS/DAY)

	VOC	NOx	CO	SOx	PM10	PM2.5
On-Site Equipment	0.68	3.52	29.68	0.06	4.96	2.69
Worker Trips	0.11	0.08	0.97	0.00	0.20	0.06
Demolition Haul Trucks	0.00	0.04	0.01	0.00	0.19	0.02
14-cy Haul Trucks	2.23	36.89	19.00	0.10	42.09	8.50
18-cy Haul Trucks	1.89	66.02	13.63	0.13	26.34	5.02
Total Emissions*	**2.63**	**69.66**	**44.29**	**0.19**	**47.44**	**11.27**
SCAQMD Thresholds	*75*	*100*	*550*	*150*	*150*	*55*
Exceeds Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

lbs/day: pounds per day; VOC: volatile organic compound(s); NOx: nitrogen oxides; CO: carbon monoxide; SOx: sulfur oxides; PM10: respirable particulate matter with a diameter of 10 microns or less; PM2.5: fine particulate matter with a diameter of 2.5 microns or less; cy: cubic yards; SCAQMD: South Coast Air Quality Management District.

* Based on highest of either 14-cy or 18-cy haul truck emissions.

Source: Vista 2017a (Appendix A).

Construction Impacts – Localized Air Quality

The localized effects from the on-site portion of daily emissions were evaluated at sensitive receptor locations according to the SCAQMD's localized significance threshold (LST) method, which applies to the following criteria pollutants: nitrogen dioxide (NO_2), carbon dioxide (CO_2), respirable (i.e., able to be inhaled) particulate matter with a diameter of 10 microns or less (PM10), and fine particulate matter with a diameter of 2.5 microns or less (PM2.5). The LST Method is a two-step process. To determine if any of these pollutants require a detailed analysis (i.e., dispersion modeling), each phase of construction was first screened using the SCAQMD's

Mass Rate LST Look-Up Tables. The Look-Up Tables were developed by the SCAQMD in order to readily determine if the daily on-site emissions of CO, nitrogen oxides (NOx), PM10, and PM2.5 from a project could result in a significant impact to the local (rather than regional) air quality.

Specifically, LSTs represent the maximum on-site emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable federal or State ambient air quality standard, and are developed based on the ambient concentrations of that pollutant for each source receptor area and distance to the nearest sensitive receptor. When quantifying mass emissions for localized analysis, only emissions that occur on site are considered. Consistent with the SCAQMD's LST guidelines, emissions related to off-site delivery/haul truck activity and employee trips are not considered in the evaluation of localized impacts.

The LST emission thresholds applied to the Project were calculated based on the East San Fernando Valley source receptor area and a disturbance of five acres, which is the largest acreage available in the Look-Up Tables. The nearest off-site sensitive receptors to the Project are located as near as 30 feet. In accordance with the LST Method, any receptor located closer than 25 meters (82 feet) shall be based on the 25-meter thresholds. The results of the LST analysis with the use of either 14-cy or 18-cy capacity haul trucks are shown in Table 3-5, Screening of Localized Construction Emissions at the Nearest On-Site Receptors. The screening emissions do not include implementation of MM AQ-1. As noted previously, the LST Method is a two-step process and the first step is the screening using the SCAQMD's Mass Rate LST Look-Up Tables.

TABLE 3-5
SCREENING OF LOCALIZED CONSTRUCTION EMISSIONS
AT THE NEAREST ON-SITE RECEPTORS (LBS/DAY)

	NOx	CO	PM10	PM2.5
On-Site Construction Equipment	49.67	27.01	7.29	4.85
On-Site 14-cy Haul Trucks	0.67	0.34	0.76	0.15
On-Site Dirt Roads with 14-cy Trucks	0.00	0.00	17.02	1.62
On-Site 18-cy Haul Trucks	1.20	0.25	0.48	0.09
On-Site Dirt Roads with 18-cy Trucks	0.00	0.00	10.86	1.03
Worst-Case Total Emissions*	**50.87**	**27.26**	**25.07**	**5.97**
SCAQMD LSTs for Screening	*172*	*1,434*	*14*	*8*
Exceeds Threshold?	**No**	**No**	**Yes**	**No**

lbs/day: pounds per day; NOx: nitrogen oxides; CO: carbon monoxide; PM10: respirable particulate matter with a diameter of 10 microns or less; PM2.5: fine particulate matter with a diameter of 2.5 microns or less; cy: cubic yards; SCAQMD: South Coast Air Quality Management District; LST: Localized Significance Threshold

* Based on highest of either 14-cy or 18-cy haul truck emissions.

Source: Vista 2017a (Appendix A).

As shown, localized emissions for NOx, CO, and PM2.5 would not exceed their respective SCAQMD screening-level LSTs, and emissions of PM10 would exceed its screening-level LST and therefore require detailed analysis in the form of dispersion modeling, discussed below. It should be noted that an exceedance of screening threshold only means that additional localized dispersion analysis is necessary, and does not represent an occurrence of a localized significant impact. This is the second step in the LST process, if determined necessary through completion of the first step (i.e., screening).

Fugitive Dust Dispersion Modeling

The 24-hour average concentrations of PM10 at the nearby sensitive receptors were calculated using dispersion modeling, with the same model (AERMOD) and parameters as applied in the analysis of TACs detailed in Threshold 3.3(d) below, except the emission source was changed to an area source (rather than line or point source) that covered a majority of the Project site (154 acres or 623,862 square meters [m^2]), based on differences in the programming of the model for this calculation.[6] Table 3-6, Local Fugitive Dust Concentrations With and Without Mitigation, summarizes the calculated PM10 emission concentrations at the nearest sensitive receptor locations to the Project site.

As shown in the "Unmitigated" column, local PM10 concentrations at sensitive receptors 2, 3, 4, 5, 8, and 9 would exceed the SCAQMD's local significance threshold value of 10.4 µg/m^3. This represents a significant local air quality impact.

TABLE 3-6
LOCAL FUGITIVE DUST CONCENTRATIONS WITH AND WITHOUT MITIGATION

Receptor ID	Receptor Description	Receptor Location[a]		24-Hour PM10 Concentrations (µg/m^3)	
		X	Y	Unmitigated	Mitigated (MMs AQ-1 and AQ-2)
1	SFR – NW of Intake Structure	367,030	3,792,240	6.84	5.05
2	SFR – N of Spreading Grounds	366,644	3,792,082	**11.69**	8.62
3	SFR – NW of Spreading Grounds	366,494	3,791,913	**12.59**	9.28
4	SFR – W of Spreading Grounds	366,294	3,791,729	**12.21**	9.01
5	Devonwood Park – W of Spreading Grounds	366,214	3,791,536	**12.40**	9.15
6	SFR – SW of Spreading Grounds	366,272	3,791,136	7.67	5.66
7	SFR – SE of Spreading Grounds	366,526	3,790,962	8.90	6.57
8	SFR – E of Spreading Grounds	367,107	3,791,450	**12.99**	9.58
9	SFR – E of Spreading Grounds	367,095	3,791,634	**11.87**	8.75
10	SFR – SE of Paxton St	367,081	3,791,995	8.74	6.44
11	MFR – SE of Paxton St	367,267	3,792,154	4.96	3.66
12	SFR – S of Devonshire Street	366,025	3,791,611	6.24	4.60
			Threshold of Significance[b]	10.4	10.4
			Exceeds Threshold?	**Yes (in bold)**	**No**

µg/m^3: micrograms per cubic meter; PM10: respirable particulate matter with a diameter of 10 microns or less; PM2.5: fine particulate matter with a diameter of 2.5 microns or less; SFR: single-family residential; MFR: multi-family residential; NW: northwest; N: north; W: west; SW: southwest; SE: southeast; E: east.

[a] Based on World Geodetic System 1984 (WGS84), Universal Transverse Mercator (UTM). The UTM projection uses two-dimensional (i.e., Cartesian) coordinate system to give locations on the surface of the Earth. The "X" and "Y" represent the two points on the earth that, together, represent the location of each receptor under the UTM system.

[b] SCAQMD Thresholds of Significance (taken from http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf?sfvrsn=2).

Source: Vista 2017a (Appendix A).

[6] The area source for unmitigated PM10 emissions was based on an emission rate of 6.329E-07 grams per second (g/s), which was calculated by converting the on-site PM10 emissions of 25.07 lbs/day (Table 3-5) to g/s over an 8-hour period and then dividing by 623,862 m^2. The area source for mitigated PM10 emissions was based on an emission rate of 4.668E-07 g/s, which was calculated by converting the on-site PM10 emissions of 20.55 lbs/day to g/s over an 8-hour period and then dividing by 623,862 m^2.

As discussed above, MM AQ-1 would require all off-road equipment greater than 50 horsepower operated on the Project site to meet Tier 4 Final emissions standards. This measure would reduce on-site PM10 (and PM2.5) emissions from equipment. Additionally, to further reduce fugitive dust concentrations, MM AQ-2 would require that the tops of the central levees, which run in a northeast-southwest direction, be paved or surfaced with a Roadway Mat System that is no less effective than a paved road at controlling fugitive dust emissions prior to the start of hauling activities. The purpose of MM AQ-2 is to reduce the total off-road path (i.e. dirt road) length traveled by the haul trucks by a minimum of 25 percent. The proposed Project originally called for paving the levees after the reconfiguration of the spreading basins and associated infrastructure was complete. However, the County would require the contractor to either pave or install a Composite Mat System on the central levees (which are currently unpaved/dirt roads) prior to hauling, consistent with MM AQ-2. If a Roadway Mat System is used, the central levee would be paved near the end of Project construction as originally planned. As such, the long-term generation of fugitive dust during maintenance and other on-site activities that require vehicle traffic within the spreading basins would be reduced compared to the existing condition. Implementation of MM AQ-2 would reduce on-site PM10 emissions generated by driving on dirt roads adequately to reduce the estimated PM10 emissions to below the SCAQMD threshold. The local PM10 concentrations with implementation of MMs AQ-1 and AQ-2 are shown in Table 3-6, in the "Mitigated" column. As shown, with mitigation, local PM10 emissions would be below the SCAQMD thresholds at each receptor location.

Operational Impacts – Regional and Localized Air Quality

The Pacoima Spreading Grounds currently requires periodic visits from County staff, which results in air emissions from the vehicle transporting the workers to and from the site. Implementation of the Project would not result in additional site visits from LACFCD staff. Therefore, there would be no change in long-term, operational regional and local criteria pollutant emissions, as maintenance activities would be essentially the same as the existing condition. There would be no impact and no mitigation is required.

c) Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

Less than Significant Impact with Mitigation. Cumulative projects include local development as well as general growth in the Project area. However, as with most development, the greatest source of emissions is from mobile sources (i.e., vehicles) that travel throughout the local area. Therefore, from an air quality standpoint, the cumulative analysis would extend beyond any local projects, and when wind patterns are considered would cover an even larger area. Accordingly, the cumulative analysis for the Project's air quality must be generic by nature.

As discussed previously, the Project area is out of attainment for ozone (O_3), PM10 (State only), and PM2.5, which means that background levels of those pollutants are at times higher than the ambient air quality standards. In accordance with Section 15130(b) of the State CEQA Guidelines, the analysis incorporates a three-tiered approach to assess cumulative air quality impacts, each of which are addressed for construction emissions from the Project below:

(1) Consistency with the SCAQMD's project-specific thresholds;

(2) Project consistency with existing air quality plans; and

(3) Assessment of the cumulative health effects of the pollutants.

As discussed under Threshold 3.3(b), there would be no change in long-term, operational regional and local criteria pollutant emissions, as maintenance activities would be essentially the same as the existing condition. Accordingly, operation of the Project would result in no impact related to a cumulatively considerable increase of ozone or fugitive dust (PM10 and PM2.5).

Consistency with the South Coast Air Quality Management District's Thresholds

The regional and local emissions of volatile organic compounds (VOC) and NOx (ozone precursors), PM10, and PM2.5 during construction of the Project with implementation of MMs AQ-1 and AQ-2 are shown in Tables 3-4 and 3-6 above. As shown, the Project's emissions would be less than each pollutant's respective threshold. Therefore, construction of the Project would result in a less than significant cumulative impact with mitigation for all criteria pollutants for which the SoCAB is out of attainment.

As discussed above, there would be no change in long-term emissions associated with Project operation; therefore, there would be no cumulative operational impact and no mitigation is required.

Cumulative Consistency with Air Quality Management Plans

As discussed above, the site is currently designated as Open Space and is also zoned Open Space (OS-1XL-O). The Project would not require a change to the land use planning for the site. As such, the Project is not anticipated to exceed the AQMP assumptions for the site and is found to be consistent with SCAQMD's 2016 AQMP. Therefore, there would be no cumulative impact and no mitigation is required.

Cumulative Health Impacts

Ambient air quality standards were set to protect public health, including the health of sensitive individuals (elderly, children, and the sick). Therefore, when the concentrations of those pollutants exceeds the standard, it is likely that some sensitive individuals in the population would experience health effects. The analysis presented above in Threshold 3.3(b) determined the Project would not exceed the SCAQMD regional significance thresholds for VOC and NOx (ozone precursors), PM10, and PM2.5 with implementation of MM AQ-1 (to reduce regional NOx emissions below the level of significance and contribute to reducing local fugitive dust emissions) and MM AQ-2 (to reduce local fugitive dust emissions below the level of significance). Therefore, construction of the Project would result in a less than significant cumulative health impact with mitigation. The results of the Health Risk Assessment (HRA) prepared for the Project are presented below in Threshold 3.3(d).

d) Would the project expose sensitive receptors to substantial pollutant concentrations?

Less than Significant Impact with Mitigation. The majority of the estimated health risk from TACs can be attributed to relatively few compounds, the most important of which is diesel particulate matter (diesel PM). Diesel PM is a subset of PM2.5 because the size of diesel particles are typically 2.5 microns and smaller. The primary sources of existing TACs in the study area are from diesel emissions from trucks operating on SR-170 and I-5. An analysis of construction-related impacts from anticipated diesel PM (TAC) emissions on sensitive receptors near the spreading grounds was performed based on dispersion modeling (i.e., the HRA).

Health Risk Assessment Modeling Parameters

Important issues that affect the dispersion modeling of TAC emissions include the following: (1) Model Selection, (2) Source Treatment, (3) Meteorological Data, and (4) Receptor Grid, each of which is summarized below. Please refer to the Revised Air Quality Report in Appendix A for the complete description of all HRA modeling parameters.

Based on the revised haul routes, the Project's TAC emissions were calculated for the area immediately around the spreading grounds, including a ¼-mile segment of the haul routes nearest the Project site. This represents the sole area where all of the haul truck routes and off-road equipment would operate in close proximity to each other. As such, analyzing this area estimates the highest TAC emissions from Project construction; TAC emissions along the remainder of the haul routes would be lower than the levels estimated near the Project site. The dispersion modeling for TACs is based on situating point and line sources, discussed further below, to represent a reasonable worst-case scenario and is not meant to be a literal description of each emissions source and each receptor.

Model Selection

The AERMOD View Version 9.4.0 Model was used for all dispersion modeling. Key dispersion modeling options selected include the regulatory default option and urban modeling option based on a population of 9,862,049 for Los Angeles County. For each analysis area, the AERMOD model was run twice, once for PM10 emissions and once for total organic gases (which includes VOC emissions) in order to calculate both the cancer and non-cancer acute and chronic health risks.

Source Treatment

Implementation of the Project would require the use of diesel powered off-road equipment as well as diesel powered haul trucks, whose emissions sources have been analyzed separately. The construction activities would be limited to an eight-hour window between 9:00 AM and 5:30 PM. However, because AERMOD only allows for analyses to be segmented by 1-hour periods, the analysis was based on operations on Monday through Friday, between 9:00 AM and 5:00 PM, rather than between 9:00 AM and 5:30 PM. The 30 minute difference would be a lunch break, and there would be no equipment emissions. Therefore, the dispersion modeling assumptions are accurate with this model input.

The on-site diesel equipment was modeled as six point sources located around the perimeter of the Project site, with total emission rates based on the CalEEMod results for the Project prior to mitigation. The on-site haul truck emissions have been analyzed separately for truck travel and truck idling. The truck idling was modeled based on two point sources, with one placed in the central portion of the spreading basins located north of Devonshire Street and one placed in the central portion of the spreading basins located south of Devonshire Street. For number of trucks idling, half of the 372 18-cy capacity trucks were modeled as idling for 7.5 minutes at each point source (i.e., idling all at one time). The larger trucks (i.e., 18-cy instead of 14-cy capacity) have greater emissions per truck, and half the trucks were modeled, as the other half would be on-road delivering soil for disposal. Also, idling for 7.5 minutes is an overestimation, as the SCAQMD restricts idling to 5 minutes.

The location of the haul truck loading on the site would be constantly changing, and use of the perimeter road for truck loading would be prohibited. As such, the on-site diesel truck travel was modeled by using two line volume sources (one each on the north and south sides of Devonshire Street within the spreading grounds).

The off-site truck travel on public roads was also modeled for the three haul routes. Modified Haul Route A and Haul Route B are, together, anticipated to have 61 percent of the haul trips. This emissions source was modeled as a line volume source from the middle of the Project site on Devonshire Street to north on Arleta Avenue to north on Paxton Street to Interstate 5. Haul Route C is anticipated to have 39 percent of the haul trips. This emissions source was modeled as a line volume source from the middle of the site on Devonshire Street to approximately a third of a mile west of the Spreading Grounds. These line sources were established where the greatest overlap of mobile emissions sources would occur, based on the Project implementation detailed in this Recirculated IS/MND.

Meteorological Data

Meteorological data from the SCAQMD's Burbank monitoring site was selected for this modeling application. Five full years (i.e., beginning of first year through end of fifth year) of sequential meteorological data was collected at the Burbank Station from 2010 to 2014 by the SCAQMD. It is noted that no monitoring data is available for the Burbank Station after 2014. SCAQMD processes the data for input into the AERMOD Model.

Receptor Grid

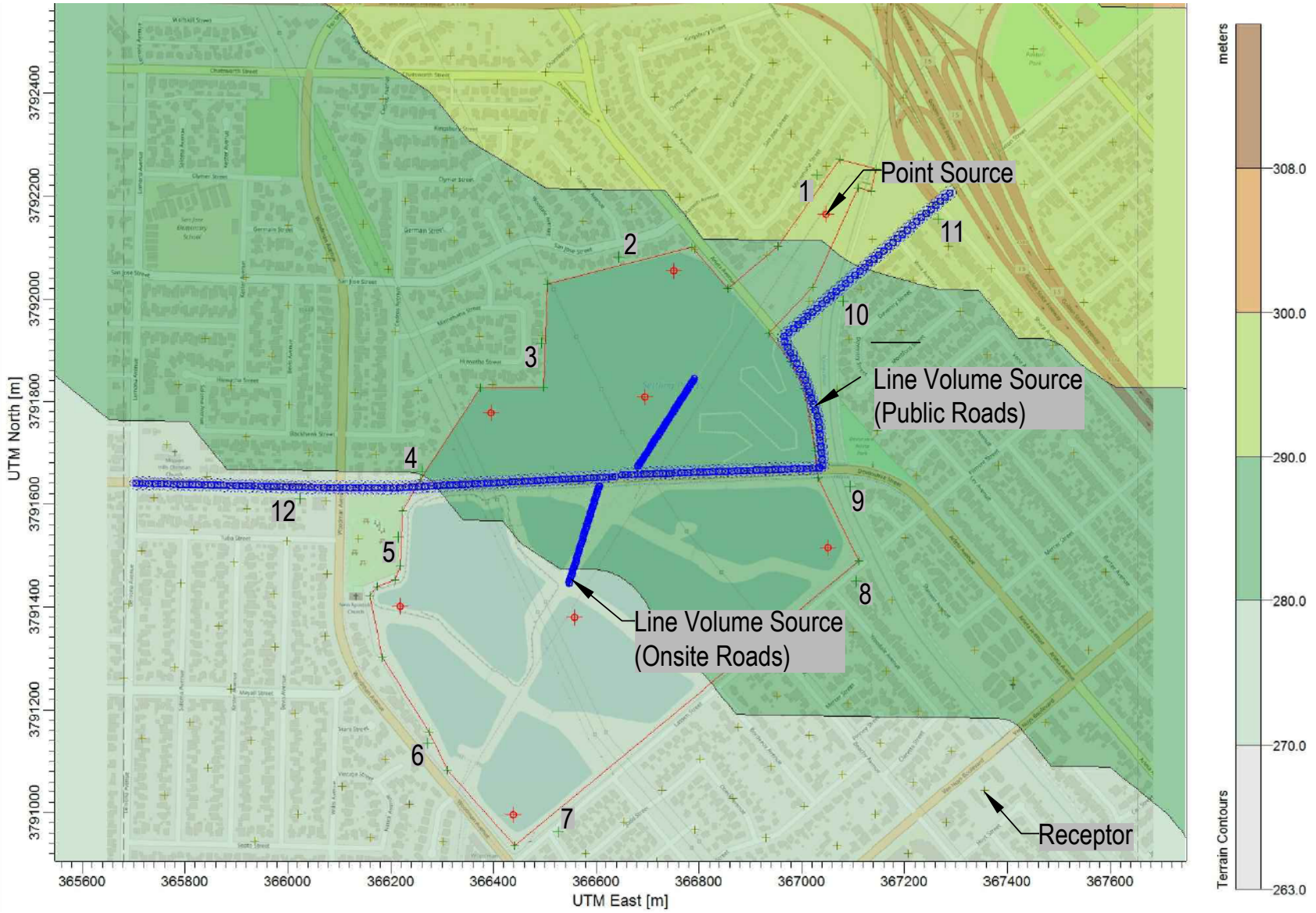
As discussed previously, the nearest off-site sensitive receptors to the spreading basins consist of multi-family homes as near as 35 feet to the southwest and single-family homes as near as 40 feet to the north and west of the proposed improvements to the spreading grounds, and Devonwood Park, which is as near as 30 feet west of the proposed improvements to the spreading grounds. Single-family homes are as near as 50 feet north of the intake canal improvements. Single-family and multi-family homes are as near as 25 feet from Modified Haul Route A and Haul Route B, and as near as 40 feet from Haul Route C (on Devonshire Street). Discrete (i.e., separate and distinct) receptors (Receptors 1 through 12) were placed at the locations of the representative off-site residential structures and the park, and grid receptors were used out to 500 meters (1,640 feet). The locations of the sources and receptors near the Project site modeled in the AERMOD model is shown in Exhibit 3-1, Air Dispersion Model Source and Receptor Locations Near the Project Site.

Health Risk Analysis Results

Health risks from TACs are twofold. First, TACs are carcinogens according to the State of California. Second, short-term acute and long-term chronic exposure to TACs can cause health effects to the respiratory system and other organs. Each of these health risks has been analyzed and is discussed below. As noted previously, the majority of the estimated health risk from TACs can be attributed to relatively few compounds, the most important of which is diesel particulate matter (diesel PM).

Cancer Risks

According to SCAQMD methodology, health effects from carcinogenic air toxics are usually described in terms of individual cancer risk. "Individual Cancer Risk" is the likelihood that a person exposed to TAC concentrations over a 70-year lifetime will contract cancer, based on the use of standard risk-assessment method. The risk was calculated consistent with the *Air Toxics Hot Spots Program Risk Assessment Guidelines*, prepared by the California Office of Environmental Health Hazard Assessment (OEHHA) in February 2015. Exhibit 3-2, Diesel PM10 Concentrations Prior to Mitigation, illustrates the diesel PM10 concentrations in and near the Project site without mitigation. Table 3-7, Diesel PM10 Levels and Cancer Risk Prior to Mitigation, summarizes the calculated cancer risk from diesel PM10 prior to mitigation.



Source: Vista Enviromental 2017

Air Dispersion Model Source and Receptor Locations Near the Project Site

Exhibit 3-1

Pacoima Spreading Grounds Improvement Project

BonTerra PSOMAS

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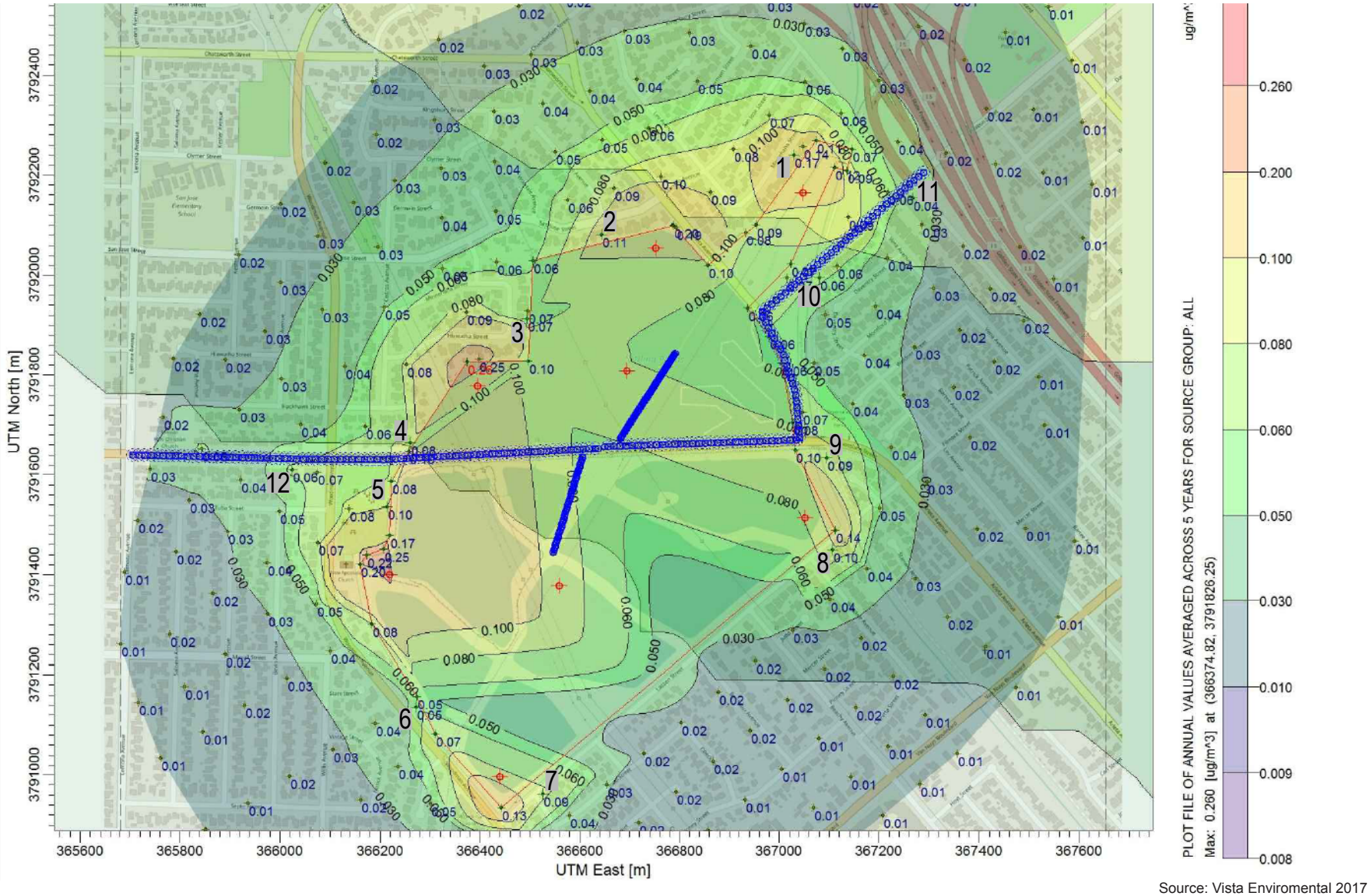

Source: Vista Enviromental 2017

Diesel PM10 Concentrations Prior to Mitigation

Exhibit 3-2

Pacoima Spreading Grounds Improvement Project

N W E S

BonTerra PSOMAS

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TABLE 3-7
DIESEL PM10 LEVELS AND CANCER RISK PRIOR TO MITIGATION

Receptor ID	Receptor Description	Receptor Location*		Annual PM10 Concentration ($\mu g/m^3$)	Cancer Risk Per Million People
		X	Y		
1	SFR – NW of Intake Structure	367,030	3,792,240	0.1707	**24.7**
2	SFR – N of Spreading Grounds	366,644	3,792,082	0.1114	**16.1**
3	SFR – NW of Spreading Grounds	366,494	3,791,913	0.0733	**10.6**
4	SFR – W of Spreading Grounds	366,294	3,791,729	0.0803	**11.6**
5	Devonwood Park – W of Spreading Grounds	366,214	3,791,536	0.0997	0.2
6	SFR – SW of Spreading Grounds	366,272	3,791,136	0.0532	7.7
7	SFR – SE of Spreading Grounds	366,526	3,790,962	0.0858	**12.4**
8	SFR – E of Spreading Grounds	367,107	3,791,450	0.0952	**13.8**
9	SFR – E of Spreading Grounds	367,095	3,791,634	0.0904	**13.1**
10	SFR – SE of Paxton Street	367,081	3,791,995	0.0627	9.1
11	MFR – SE of Paxton Street	367,267	3,792,154	0.0412	6.0
12	SFR – S of Devonshire Street	366,025	3,791,611	0.01707	**24.7**
				Threshold of Significance	10.0
				Exceeds Threshold?	**Yes**

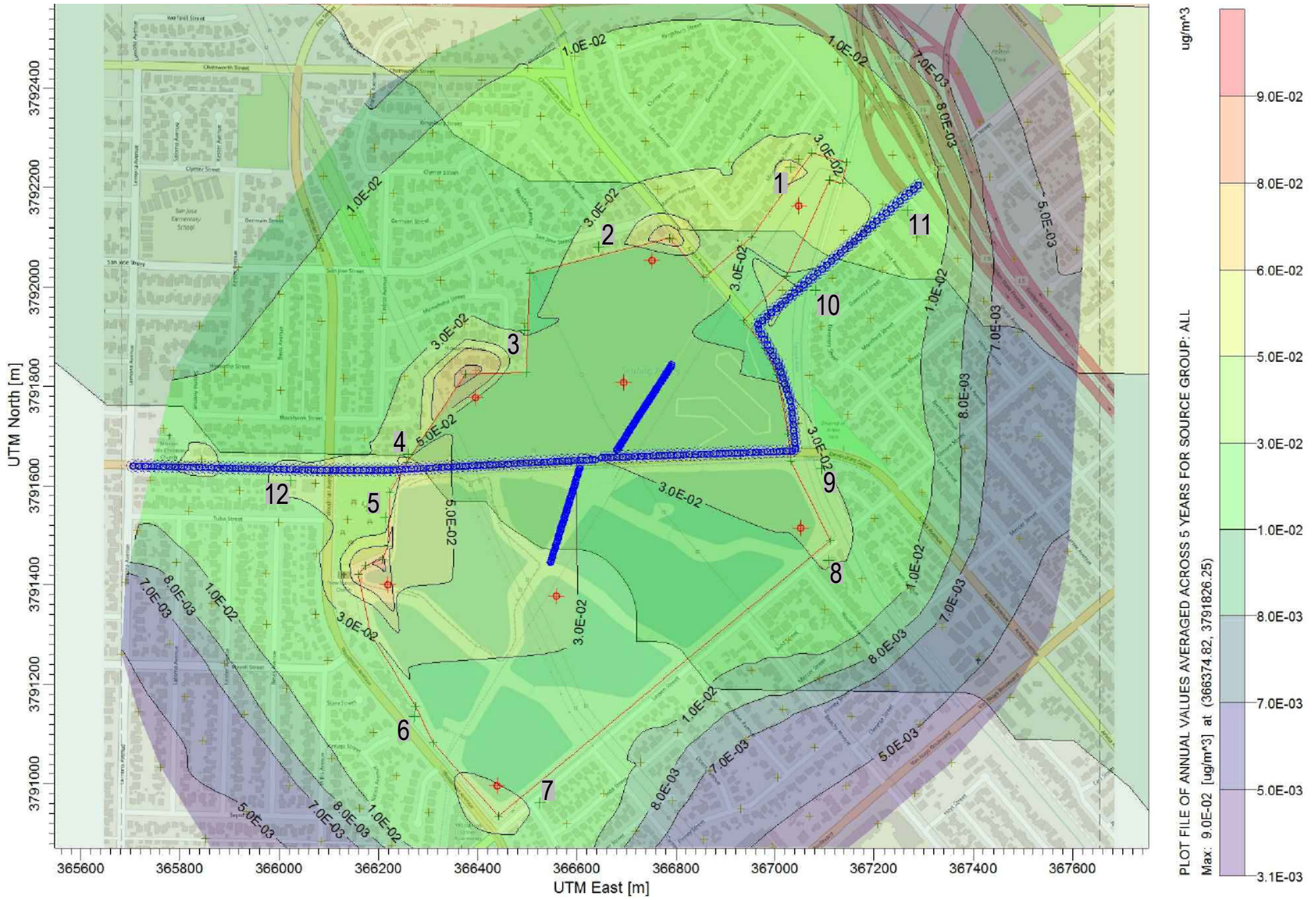
$\mu g/m^3$: micrograms per cubic meter; Diesel PM: diesel particulate matter; SFR: single-family residential; MFR: multi-family residential; NW; northwest; N: north; W: west; SW: southwest; SE: southeast; E: east.

* Based on World Geodetic System 1984 (WGS84), Universal Transverse Mercator (UTM). The UTM projection uses two-dimensional (i.e., Cartesian) coordinate system to give locations on the surface of the Earth. The "X" and "Y" represent the two points on the earth that, together, represent the location of each receptor under the UTM system.

Source: Vista 2017a (Appendix A).

As shown in Table 3-7, the calculated cancer risks from TAC emissions would exceed the 10.0 in 1 million cancer risk threshold at some receptors. This would be considered a significant impact. MM AQ-1, discussed previously, requires that all off-road equipment greater than 50 HP meet Tier 4 emissions standards and would also reduce impacts associated with TACs.

Exhibit 3-3, Diesel PM10 Concentrations with Mitigation, illustrates the diesel PM10 concentrations in and near the Project site with mitigation. Table 3-8, Diesel PM10 Levels and Cancer Risk with Mitigation (MM AQ-1), shows the calculated cancer risk with implementation of MM AQ-1.



Source: Vista Enviromental 2017

Diesel PM10 Concentrations with Mitigation

Exhibit 3-3

Pacoima Spreading Grounds Improvement Project

N W E S

BonTerra PSOMAS

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TABLE 3-8
DIESEL PM10 LEVELS AND CANCER RISK WITH MITIGATION (MM AQ-1)

Receptor ID	Receptor Description	Receptor Location*		Annual PM10 Concentration ($\mu g/m^3$)	Cancer Risk Per Million People
		X	Y		
1	SFR – NW of Intake Structure	367,030	3,792,240	0.0578	8.4
2	SFR – N of Spreading Grounds	366,644	3,792,082	0.0394	5.7
3	SFR – NW of Spreading Grounds	366,494	3,791,913	0.0284	4.1
4	SFR – W of Spreading Grounds	366,294	3,791,729	0.0406	5.9
5	Devonwood Park – W of Spreading Grounds	366,214	3,791,536	0.0385	0.1
6	SFR – SW of Spreading Grounds	366,272	3,791,136	0.0190	2.7
7	SFR – SE of Spreading Grounds	366,526	3,790,962	0.0293	4.2
8	SFR – E of Spreading Grounds	367,107	3,791,450	0.0330	4.8
9	SFR – E of Spreading Grounds	367,095	3,791,634	0.0329	4.8
10	SFR – SE of Paxton Street	367,081	3,791,995	0.0287	4.2
11	MFR – SE of Paxton Street	367,267	3,792,154	0.0198	2.9
12	SFR – S of Devonshire Street	366,025	3,791,611	0.0578	8.4
				Threshold of Significance	10.0
				Exceeds Threshold?	**No**

$\mu g/m^3$: micrograms per cubic meter; Diesel PM: diesel particulate matter; SFR: single-family residential; MFR: multi-family residential; NW; northwest; N: north; W: west; SW: southwest; SE: southeast; E: east.

* Based on World Geodetic System 1984 (WGS84), Universal Transverse Mercator (UTM). The UTM projection uses two-dimensional (i.e., Cartesian) coordinate system to give locations on the surface of the Earth. The "X" and "Y" represent the two points on the earth that, together, represent the location of each receptor under the UTM system.

Source: Vista 2017a (Appendix A).

As shown in Table 3-8, with implementation of MM AQ-1, the construction-related cancer risks from the proposed Project's diesel PM emissions would be reduced to less than significant levels.

Chronic Health Impacts

Chronic health effects are characterized by prolonged or repeated exposure to a TAC over many days, months, or years. Symptoms from chronic health impacts may not be immediately apparent and are often irreversible. This risk is measured with the Chronic Hazard Index, an expression of potential for non-cancer health effects; SCAQMD's significance threshold for chronic TAC exposure is a Hazard Index increase of one or more. Based on the highest annual concentration of diesel PM at the nearest sensitive receptor calculated by the AERMOD model prior to mitigation (0.1701 $\mu g/m^3$), the Chronic Hazard Index for proposed on-site activities would be 0.0341. This is well below the 1.0 threshold for a significant chronic health risk. As noted, this figure is prior to implementation of MM AQ-1. With this mitigation, the Chronic Hazard Index would be 0.01156.[7] Therefore, a less than significant non-cancer chronic health risk would result from implementation of the Project.

[7] Calculated as 0.0578 $\mu g/m^3$/ REL_{DPM} of 5 $\mu g/m^3$. REL_{DPM} is the Reference Exposure Level for diesel PM, or the concentration at which no adverse health effects are anticipated.

Acute Health Impacts

Acute health effects are characterized by sudden and severe exposure and rapid absorption of a TAC and, normally, a single, large exposure is involved. Acute health effects are often treatable and reversible. This risk is measured with the Acute Hazard Index, an expression of potential for non-cancer health effects; SCAQMD's significance threshold for acute TAC exposure is a Hazard Index increase of one or more. The Acute Hazard Index was calculated for each of the 15 TAC pollutants from diesel emissions that have the potential to cause acute health risks, and the combined total Acute Health Index is 0.0129 prior to mitigation. This is well below the 1.0 threshold for a significant acute health risk. With implementation of MM AQ-1, the Acute Health Index would be lower. Therefore, a less than significant non-cancer acute health risk would result from implementation of the Project.

Operations-Related Sensitive Receptor Impacts

As discussed under Threshold 3.3(b), implementation of the Project would not result in additional site visits from County staff or other changes in long-term operations. Therefore, the continued operation of the Pacoima Spreading Grounds after Project implementation would not expose sensitive receptors in the site vicinity to substantial pollutant concentrations. There would be no impact and no mitigation is required.

e) Would the project create objectionable odors affecting a substantial number of people?

Less than Significant Impact. Individual responses to odors are highly variable and can result in a variety of effects. Generally, the impact of an odor results from a variety of factors such as frequency, duration, offensiveness, location, and sensory perception. The SCAQMD receives and investigates odor complaints from nearby residents to a project; and, if six or more odor events are reported in a year, the SCAQMD opens an investigation into the odor complaints. If the SCAQMD determines that the emission source from the project site indicated by the complainants is in violation of Rule 402, they have the authority to require the offender to implement measures to eliminate the odor impacts. If the Project results in a violation of Rule 402 with regard to odor impacts, this would be considered a significant odor impact. However, as described below, based on the Project location and types of construction activity, significant odor impacts are not anticipated.

Construction-Related Odor Impacts

Potential sources that may emit odors during construction activities include the application of materials; emissions associated with the operation of diesel equipment; and possibly from decaying organic material disturbed during earth-moving activities. The diesel equipment utilized on site would be constantly moving around, and any odors created from diesel equipment would be temporary at any one location and would not likely be noticeable for extended periods of time beyond the Project site's boundaries. In addition, materials such as asphalt pavement would be installed over a couple of days for any one location and would result in temporary odor impacts that would not likely be noticeable for extended periods of time beyond the Project site's boundaries.

The potential odor impacts associated with excavation activities would be caused by release of material that contain sulfur or organic material, even in small amounts. Sulfur compounds have very low odor threshold levels. For instance, hydrogen sulfide can be detected by humans at concentrations from 0.5 parts per billion (ppb, which is noticeable by 2 percent of the population) to 40 ppb (which is qualified as annoying by 50 percent of the population). It should be noted that

the Project site has been utilized as spreading grounds since the 1930s and vegetation has been removed from the spreading grounds on an annual basis for the entire duration of operations, so the amount of organic material in the soil should be minimal. Furthermore, soil in the Project vicinity is not known to contain high levels of sulfur so odor from sulfur in the accumulated soil is unlikely to occur. Odors related to off-site diesel equipment operations (i.e., haul trucks) would be negligible combined with existing vehicle emissions, for several reasons. The vehicles would be dispersed along the three haul routes rather than operating altogether in off-site location; these vehicles would be in motion; and, like on-site diesel equipment, the emissions would quickly dissipate. Therefore, there would be a less than significant impact related to objectionable odors affecting a substantial number of people during construction of the Project and no mitigation is required.

Operations-Related Odor Impacts

As discussed under Threshold 3.3(b), implementation of the Project would not result in additional site visits from County staff or other changes in long-term operations. Therefore, the continued operation of the Pacoima Spreading Grounds after Project implementation would not introduce any new sources of odors to the project site, nor would it reconfigure any existing sources of odors on the project site. There would be no impact and no mitigation is required.

MITIGATION MEASURES

MM AQ-1 The Los Angeles County Flood Control District (LACFCD) shall include in the Contractor specifications the requirement that all off-road diesel-powered construction equipment greater than 50 horsepower shall meet the Tier 4 Final emissions standards. To provide evidence that the equipment is the appropriate tier, it shall be registered with the California Air Resources Board and labelled detailing that the equipment meets Tier 4 emissions standards. This requirement shall be monitored by LACFCD's on-site Construction Inspector, when inspecting the site.

MM AQ-2 Prior to the start of haul truck operations, the Los Angeles County Flood Control District (LACFCD) shall include in the Contractor specifications the requirement that the top of the central levee spanning the spreading grounds in a northeast-southwest direction be paved or a Roadway Mat System that is no less effective than a paved road at controlling fugitive dust emissions, be installed. In order to eliminate an adequate amount of unpaved surface to reduce dust emissions to a less than significant level, the paving or Roadway Mat System shall be of sufficient length to cover the greater of either: (1) a minimum of 25 percent of the total off-road path length being utilized by the haul trucks within the spreading grounds; or (2) a minimum of 660 linear feet of the paving or Roadway Mat System. The paving or Roadway Mat System shall be routinely inspected and maintained by the Contractor as often as needed to ensure the integrity of the surface and eliminate fugitive dust emissions from the off-road segments with this treatment. The haul truck drivers shall be directed to drive on the paving or Roadway Mat System exclusively unless there is no feasible alternative. The condition and use of the paved/matted levee roads shall be monitored by LACFCD's on-site Construction Inspector when inspecting the site.

3.4 BIOLOGICAL RESOURCES	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant Impact	No Impact
Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modification, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☒	☐	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

Information in this section is derived primarily from the *Biological Technical Report for the Pacoima Spreading Grounds Improvement Project, Los Angeles County, California* (Biological Report) dated November 2013 and prepared by Chambers Group, Inc. (Chambers 2013a), and consultation with the LACFCD. This report is provided in its entirety in Appendix B.

IMPACT ANALYSIS

Regulatory Requirements

RR BIO-1 Consistent with the LACFCD Interim Tree Removal and Replacement Policy (effective August 2016), all trees removed within Los Angeles County Department of Public Works' right-of-way, including but not limited to parkways, public rights-of-way, flood control facilities, and public buildings, would be replaced at a 1:1 ratio (i.e., one removed, one replaced) or higher. Replacement would be in a location near the existing location, unless this is not feasible, in which case the replacement tree can be planted in an alternate location within the Pacoima Spreading Grounds site.

Impact Discussion

a) Would the project have a substantial adverse effect, either directly or through habitat modification, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

No Impact. The biological survey identified four vegetation communities on the Project site: Ruderal, Developed, Disturbed, and Ornamental Landscaping. Exhibit 3-4, Vegetation Types, illustrates the distribution and acreage of vegetation types throughout the Project site. The majority of the site is comprised of Ruderal vegetation communities, which are dominated by non-native, weedy species that are adapted to frequent disturbances. Species observed in this community on the site include common knotweed, English plantain, and white sweetclover. Developed areas are those that have been altered by humans and display man-made structures; Developed areas found within the Project site include paved and graded roads. Disturbed areas are often barren and lack vegetation due to clearing or grading, and are often dominated by pioneer herbaceous species that readily colonize disturbed ground. Species observed on the site in this community include wild lettuce, prickly sow-thistle, and common sow-thistle. Ornamental Landscaping includes areas where the vegetation is dominated by non-native horticultural plants; species observed on the site in this community include non-native pine, eucalyptus, and palm trees.

Database searches resulted in a list of 17 federally and/or State-listed Threatened, Endangered, or Rare plant species documented to occur in the vicinity of the Project site. All 17 plant species were determined to be absent from the Project site. Factors used to determine the potential for occurrence included the quality of habitat, elevation, the location of prior California Natural Diversity Database (CNDDB) records of occurrence, and the results of the reconnaissance survey. A database search resulted in a list of 25 federally and/or State-listed Endangered or Threatened, Species of Concern, or otherwise sensitive wildlife species that may potentially occur on the Project site. Based on a literature review and the assessment of the various habitat types on the site, all 25 sensitive wildlife species are considered absent from the site. No sensitive plant or wildlife species were observed on the Project site. Therefore, none of the trees or other vegetation that would be removed for Project implementation are special status or otherwise protected species.

Candidate, Sensitive, or Special Status plant or wildlife species have no potential to occur on the Project site. Wildlife species common to urban areas are not adversely affected by construction activity. Unlike a federally or State-listed Threatened or Endangered species, common urban wildlife are able to relocate readily; and their populations can remain sustained such that the species is not in danger. Because construction of the proposed Project would not adversely affect the populations of common wildlife species in urban areas, and no special status species are found on the Project site, there would be no impacts to special status species identified in local or regional plans, policies, or regulations due to construction or operation of the Project; no mitigation is required.

Source: Chambers Group 2013

Vegetation Types

Exhibit 3-4

Pacoima Spreading Grounds Improvement Project

480 240 0 480

Feet

BonTerra PSOMAS

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b) Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

No Impact. As described above, no native vegetation types occur on the Project site. As a result, there are no riparian habitats or sensitive natural communities identified by regional plans, policies, regulations, or agencies on the Project site. There would be no impact to habitat due to construction or operation of the Project and no mitigation is required.

c) Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

No Impact. The LACFCD owns and operates numerous groundwater infiltration basins, which were designed to recharge underground aquifers with storm water, recycled water, and imported water. The Pacoima Spreading Grounds has recharged an average of 5,079 acre-feet (af) of water per year (af/y)(LACDPW 2017), which is equivalent to the annual water needs of approximately 15,237 single-family homes. The San Fernando Groundwater Basin represents a vital part of the drinking water portfolio in Los Angeles County, where many communities obtain the majority of their drinking water from underground aquifers.

The spreading grounds are not classified as federally protected wetlands. The Pacoima Spreading Grounds is an "off-line" facility in that storm water is actively diverted into the spreading grounds from an adjacent channel. The diverted water then percolates into the ground and recharges the aquifer. Although Pacoima Spreading Grounds has an emergency overflow outlet, this outlet is not used during the course of normal operation; also, it discharges into the Municipal Separate Storm water Sewer System (MS4).

Additionally, implementation of the Project would not result in a change to surface flows downstream of the site (i.e., hydrological interruption) that could negatively affect biological resources in the Pacoima Diversion Channel or the Los Angeles River. From the Project site at the Pacoima Wash Channel, down Pacoima Diversion Channel and the Los Angeles River to the Los Angeles River's confluence with the Burbank Western Channel, the flow path is along channels that are completely lined with concrete and have minimal ecological function, limited to algae on the channel bottom formed by dry weather urban runoff. From the Burbank Channel confluence to the vicinity of its confluence with the Arroyo Seco (the Glendale Narrows section), the Los Angeles River is a channel with concrete banks and a non-concrete (i.e., soft) bottom. This section of the Los Angeles River does contain biological resources, but this includes many non-native invasive plant and wildlife species. From the downstream end of the Glendale Narrows section to near its ocean outlet, the Los Angeles River reverts to a channel with a concrete bottom and concrete or grouted rock banks. The increased diversion of an estimated 10,500 af/y (in a wet year) into the Pacoima Spreading Grounds would not adversely affect the biological resources of the Glendale Narrows section. Typically, the further the distance between a reduced flow regime and the vegetation that may be supported by that flow, the less the effect of the change in flows due to contributions from watersheds downstream coming in. There is a distance of over 15 linear miles from the Pacoima Spreading Grounds' diversion point to the start of the Glendale Narrows section. At this substantive distance, no reduction or other change in surface flows would be detectable, due to the effects from the other substantial, mostly urbanized, watersheds coming into the river along the way. When storm water runoff is diverted for infiltration into the Pacoima Spreading Grounds, even with the proposed Project's improvements, runoff would still be substantial from the urbanized watersheds of the Pacoima Diversion Channel and the Los

Angeles River below the spreading grounds, which would continue to either sustain the algae in the concrete channel bottoms or, in high storm flow events, scour it out. These flows would make their way to the Glendale Narrows section and ultimately downstream to the ocean. The flow contributions of the substantial, urbanized watersheds below the end of the Glendale Narrows section would be the primary influence on the algae in the downstream channel bottoms. Therefore, the change in flow regime from the Project would have no adverse effects on the biological resources of the channel reaches downstream of the Pacoima Spreading Grounds.

There would be no impact to federally protected wetlands, directly or indirectly, due to construction or operation of the Project and no mitigation is required.

d) Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Less than Significant Impact with Mitigation. The Project site is surrounded by urban development, and the area is not an established migratory wildlife corridor.

The federal Migratory Bird Treaty Act of 1918 (MBTA) protects the nests of all native bird species, including common species such as mourning dove (*Zenaida macroura*), Anna's hummingbird (*Calypte anna*), and house finch (*Carpodacus mexicanus*). Nesting birds and raptors have the potential to occur in natural and non-natural features within and adjacent to the Project site. In addition to the MBTA, Sections 3503 and 3503.5 of the *California Fish and Game Code* protect nesting migratory birds and raptors, and impacts to nesting birds, both on and adjacent to the Project site, would be considered a significant impact prior to mitigation.

As Project implementation necessitates that construction activities be initiated during the breeding season for nesting birds (March 1–September 15) and nesting raptors (January 1–July 31), MM BIO-1 requires a pre-construction nesting bird/raptor survey to ensure compliance with the MBTA and describes the process for protecting any active nests identified while construction is ongoing. If construction activities are initiated during the non-breeding season, implementation of MM BIO-1 would not be required, and there would be no potential impact to nesting birds and raptors. With implementation of MM BIO-1, potential impacts to nesting migratory birds and raptors during their breeding seasons during Project construction would be reduced to a less than significant impact. Operation of the Project would have not impact nesting birds and raptors, because there would be no long-term changes to the regular inspection and maintenance operations that have occurred historically.

e) Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

No Impact. The Project does not involve the removal or trimming of any City of Los Angeles protected tree species, which includes oak trees (*Quercus* sp. excluding scrub oak), Southern California black walnut (*Juglans californica* var. *californica*), western sycamore (*Platanus racemosa*), and California bay (*Umbellularia californica*), as defined in Section 46.01 of the Municipal Code. As discussed previously, consistent with the LACFCD Interim Tree Removal and Replacement Policy (RR BIO-1), all trees removed would be replaced at a 1:1 ratio (i.e., one removed, one replaced) or higher in a location near the existing location, unless this is not feasible, in which case the replacement tree can be planted in an alternate location within the Pacoima Spreading Grounds site. The Biological Report prepared for the Project identified only non-native tree species on the site. There would be no impact related to these policies due to construction or operation of the Project and no mitigation is required.

f) Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No Impact. There is no habitat conservation plan or natural community conservation plan for the Project area. Also, the Project site is not located within a designated Significant Ecological Area (SEA) under the County's SEA program (LACDRP 2015). There would be no impact related to the SEA program due to construction or operation of the Project and no mitigation is required.

MITIGATION MEASURES

MM BIO-1 The Project shall be conducted in compliance with the conditions set forth in the Migratory Bird Treaty Act (MBTA) and *California Fish and Game Code* with methods approved by the U.S. Fish and Wildlife Service (USFWS) and California Department of Fish and Wildlife (CDFW) to protect active bird/raptor nests. As the Project requires that work be initiated during the breeding season for nesting birds (March 1–September 15) and nesting raptors (January 1–July 31), the Los Angeles County Flood Control District (LACFCD) shall perform (via County of Los Angeles biologist staff), or direct the performance of, a pre-construction survey for nesting birds and/or raptors shall be conducted by a qualified Biologist within three days prior to any construction activities on the Project site and in the immediately surrounding area (i.e., perform survey within 50 feet for nesting birds and within 500 feet for nesting raptors). If the Biologist does not find any active nests in or immediately adjacent to the Project site, the construction work shall be allowed to proceed and no further mitigation is required.

If the Biologist finds an active nest in or immediately adjacent to the Project site and determines that the nest may be impacted or breeding activities substantially disrupted due to planned construction activities, the Biologist shall delineate an appropriate buffer zone around the nest depending on the sensitivity of the species and the nature of the construction activity. Any nest found during survey efforts shall be mapped on the construction plans. The active nest shall be protected until nesting activity has ended. To protect any nest site, the following restrictions to construction activities shall be required until nests are no longer active, as determined by a qualified Biologist: (1) construction limits shall be established within a buffer around any occupied nest (the buffer shall be 25–100 feet for nesting birds and 300–500 feet for nesting raptors), unless otherwise determined by a qualified Biologist and (2) access and surveying shall be restricted within the buffer of any occupied nest, unless otherwise determined by a qualified Biologist. Encroachment into the buffer area around a known nest shall only be allowed if the Biologist determines that the proposed activity would not disturb the nest occupants. Construction in a buffer area can proceed when the qualified Biologist has determined that fledglings have left the nest or the nest has failed. These requirements shall be monitored by LACFCD's on-site Construction Inspector when inspecting the site.

3.5 CULTURAL RESOURCES	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant Impact	No Impact
Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?	☐	☐	☒	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☐	☐	☒	☐
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☒	☐

Information in this section is derived from the *Cultural Resources Investigation for Pacoima Spreading Grounds Improvement Project, Los Angeles County, California* (Cultural Resources Report) dated November 2013 and prepared by Chambers Group (Chambers 2013b) and the *Phase I Paleontological Resources Assessment, Pacoima Spreading Grounds Improvement Project, Los Angeles, Los Angeles County, California* (Paleontology Report) dated July 2015 and prepared by BonTerra Psomas (BonTerra Psomas 2015). These reports are provided in their entirety in Appendices C-1 and C-2, respectively.

IMPACT ANALYSIS

Regulatory Requirements

RR CUL-1 Should archaeological resources be found during ground-disturbing activities for the Project, an Archaeologist shall be hired to first determine whether it is a "Tribal Cultural Resource" pursuant to Section 21074 of the *California Public Resources Code*, a "unique archaeological resource" pursuant to Section 21083.2(g) of the *California Public Resources* Code, or a "historical resource" pursuant to Section 15064.5(a) of the California Environmental Quality Act (CEQA) Guidelines. If the archaeological resource is determined to be a "Tribal Cultural Resource", "unique archaeological resource", or a "historical resource", the Archaeologist shall formulate a mitigation plan in consultation with the Los Angeles County Flood Control District that satisfies the requirements of the above-referenced sections. Upon approval of the mitigation plan by the County Los Angeles Department of Public Works' Director, or their designee, the Project shall be implemented in compliance with the mitigation plan. If the Archaeologist determines that the archaeological resource is not a "Tribal Cultural Resource", "unique archaeological resource", or "historical resource", s/he may record the site and submit the recordation form to the California Historic Resources Information System at the South Central Coastal Information Center at California State University, Fullerton.

RR CUL-2 If human remains are encountered during excavation activities, all work shall halt in the immediate vicinity of the discovery and the County Coroner shall be notified (*California Public Resources Code* §5097.98). The Coroner shall determine whether the remains are of forensic interest. If the Coroner, with the aid of the Archaeologist approved by the Los Angeles County Flood Control District,

determines that the remains are prehistoric, s/he will contact the Native American Heritage Commission (NAHC). The NAHC shall be responsible for designating the most likely descendant (MLD), who will be responsible for the ultimate disposition of the remains, as required by Section 7050.5 of the *California Health and Safety Code.* The MLD shall make his/her recommendation within 48 hours of being granted access to the site. The MLD's recommendation shall be followed if feasible, and may include scientific removal and non-destructive analysis of the human remains and any items associated with Native American burials (*California Health and Safety Code,* § 7050.5). If the landowner rejects the MLD's recommendations, the landowner shall rebury the remains with appropriate dignity on the property in a location that will not be subject to further subsurface disturbance (*California Public Resources Code* §5097.98).

Impact Discussion

a) Would the project cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?

Less than Significant Impact. Construction of the Pacoima Spreading Grounds began in the early 1930s, and the first season of operation was 1932–1933. Based on the age of the facility, the Pacoima Spreading Grounds was evaluated for historic significance by Chambers as part of the Cultural Resources Report. Pacoima Spreading Grounds was concluded not to be eligible for the National Register of Historic Places (NRHP), California Register of Historic Resources (CRHR), or for consideration as an historical resources for purposes of CEQA due to the considerable alterations the facility has undergone since its initial construction. These alterations include deepening and reconfiguring the basins; improving the headworks and floodgates; and removing several levees and diversion structures. The evaluation concludes that the historic integrity of the property appears to have been undermined and the significant modifications that have taken place since the 1930s have affected the property's ability to convey a level of historical significance to warrant eligibility for listing to either the NRHP or CRHR. Therefore, impacts to historic resources due to construction or operation of the Project would be less than significant and no mitigation is required.

b) Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

Less than Significant Impact. The Cultural Resources Report did not identify any previously recorded prehistoric or historic archaeological sites or historic buildings and structures in the Project area or within a ½-mile radius of the study area. However, the absence of known cultural resources in the Project area does not preclude the possible presence of undiscovered cultural resources that may lie in the subsurface. The exposure of historic and archaeological resources during ground-disturbing activities is addressed by adherence to Section 21083.2(g) of the *California Public Resources Code* (RR CUL-1). With implementation of RR CUL-1, there would be less than significant impacts related to encounter of unanticipated archaeological resources during construction activities. Operation of the Project would not impact archaeological resources, because there would be no long-term changes to the regular inspection and maintenance operations that have occurred historically.

d) Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less than Significant with Mitigation. The Paleontological Resources Report did not identify any known paleontological resources in the Project area. However, based on the literature review and a records search from the Natural History Museum of Los Angeles (NHMLA) performed for the Paleontological Resources Report, there is a potential for paleontological resources to be present in the native sediments underlying the site.

The majority of the site is underlain by Quaternary gravel, and a narrow belt of Quaternary alluvium is present along the site's northern and southern boundaries. The literature indicates that in similar Late Pleistocene-aged sediments, remains of large extinct mammals were recovered as well as remains of extant smaller fish, amphibians, reptiles, birds, and mammals. The vertebrate fossil records of the NHMLA identify fossil localities from similar sediments within approximately ten miles of the site that included specimens of bison, mastodon, horse, mammoth, and camel. Dr. Sam McLeod of the NHMLA concludes that shallow excavations in the younger Quaternary Alluvium exposed throughout the Project site are unlikely to produce significant fossil vertebrate remains, but that deeper excavations that extend into older Quaternary deposits may encounter significant vertebrate fossils. The upper horizons of the Quaternary sediments are disturbed to a depth of approximately ten feet from past excavations on the Pacoima Spreading Grounds.

Therefore, MM CUL-1 requires that all construction personnel and County staff (e.g., the County inspector[s] and geologist[s]) be trained by a qualified Paleontologist to perform monitoring of excavations into native soils of approximately ten feet or deeper pursuant to the monitoring protocol established by the Paleontologist. The monitoring protocol shall require that any discovered resources be reported to a qualified Paleontologist for evaluation, and, if the resource is determined to be significant, to determine the appropriate actions for further exploration and/or salvage of the resource. The County Monitor must be adequately trained by a qualified Paleontologist in the recognition of paleontological resources. These and other requirements of MM CUL-1 would reduce the impact related to encountering unknown paleontological resources during construction activities to a less than significant level. Operation of the Project would not impact paleontological resources, because there would be no long-term changes to the regular inspection and maintenance operations that have occurred historically.

e) Would the project disturb any human remains, including those interred outside of formal cemeteries?

Less than Significant Impact. There is no indication that human remains are present in the Project area, including those interred outside formal cemeteries. In the unlikely event of an unanticipated encounter with human remains in Project site, the *California Health and Safety Code* and the *California Public Resources Code* require that any activity in the area of a potential find be halted and the Los Angeles County Coroner be notified, as described in RR CUL-2. Compliance with RR CUL-2 during construction activities would ensure that impacts would be less than significant. Operation of the Project would have no potential to impact unknown human remains, because there would be no long-term changes to the regular inspection and maintenance operations that have occurred historically.

MITIGATION MEASURES

MM CUL-1 The Los Angeles County Flood Control District (LACFCD) shall include in the Contractor specifications the requirement that prior to the start of sediment removal, a qualified Paleontologist shall be present at the pre-grading conference

to establish procedures for temporarily halting or redirecting work to permit the sampling, identification, and evaluation of newly discovered paleontological resources found during excavation activities. The paleontologist shall conduct a training for construction personnel and on-site County staff on the identification of possible paleontological resources that may be present in the area. A monitoring protocol shall be established by the Paleontologist upon discovery to identify and salvage any paleontological resources that may be unearthed through excavation activities. Monitoring shall only be required for soil disturbance into native soils that have the potential for resources, which occur approximately ten feet or deeper below the surface soils. The County Monitors must be adequately trained by a qualified Paleontologist in the recognition of paleontological resources. Any discovered resources shall be reported to a qualified Paleontologist for evaluation. If the resource is found to be significant, the Paleontologist shall determine appropriate actions, in cooperation with the County, for further exploration and/or salvage. A Disposition of the Recovered Paleontological Resources and Mitigation Report shall be prepared by the qualified Paleontologist and submitted to the County. Any recovered fossils shall be deposited in an accredited institution or museum, such as the Natural History Museum of Los Angeles County. These requirements shall be monitored by LACFCD's on-site Construction Inspector when inspecting the site.

3.6 GEOLOGY AND SOILS	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant Impact	No Impact
Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☐	☒
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in onsite or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	☐	☒
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒

IMPACT ANALYSIS

Regulatory Requirements

RR HYD-1, provided in Section 3.9, Hydrology and Water Quality, is applicable to the analysis of topsoil loss below.

Impact Discussion

a) Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

iii) Seismic-related ground failure, including liquefaction?

iv) Landslides?

No Impact. The Project site is not within an Alquist-Priolo Earthquake Fault Zone and there are no known faults traversing the site (CGS 1979; LACDPW 2009). Therefore, the risk of surface rupture at the Project site is considered remote.

According to the Seismic Hazard Zones Map for the San Fernando Quadrangle prepared by the California Geological Survey (CGS), the Project site is not identified as susceptible to liquefaction or landslides (CGS 1999). The site is relatively flat, sloping gently toward the south-southwest. The historic high groundwater level in the vicinity of the Project site is approximately 210 feet below ground surface, and depth to groundwater fluctuated between 300 feet and 350 feet below ground surface between the years 2004 and 2008 (LACDPW 2009). These conditions correlate to an absence of liquefaction and landslide risk. The Project would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, liquefaction, or landslides. There would be no impact due to construction or operation of the Project and no mitigation is required.

a) Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

ii) Strong seismic ground shaking?

No Impact. The Project site is located within the San Fernando Valley and is bound by the Verdugo, Santa Susana, and San Gabriel mountains to the north and the Santa Monica Mountains to the south (LACDPW 2009). Various unnamed faults are located to the north and northeast of the site; however, none of the unnamed faults traverse the site. The nearest named faults include the Mission Hills, Verdugo, and Northridge Hills Faults to the northwest, east, and southwest, respectively. Consistent with its location in a seismically active region, the site may be subject to strong ground shaking resulting from a major earthquake on one or more faults in the area within the lifetime of the Project. Seismic ground shaking from major earthquakes in the region is not anticipated to be greater than at any other sites in Southern California. The potential for strong ground shaking is an existing seismic hazard that affects the site, and the Project would not exacerbate this condition. Also, the Project would not involve construction of habitable structures or structures whose height, mass, or materials would pose a hazard in the event of an earthquake. There would be no impacts due to exposure to substantial adverse effects from seismic ground shaking due to construction or operation of the Project and no mitigation is required.

b) Would the project result in substantial soil erosion or the loss of topsoil?

Less than Significant Impact. The largest source of erosion and topsoil loss, particularly in a developed environment, is uncontrolled drainage during construction activities. Since the Project site is greater than one acre, compliance with the State Water Resources Control Board's

(SWRCB's) National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with the Construction and Land Disturbance Activities[8] (Construction General Permit) would be required (RR HYD-1). Pursuant to the Construction General Permit, the LACFCD would be required to prepare, or have prepared by the Construction Contractor, a Storm Water Pollution Prevention Plan (SWPPP) that would include erosion-control Best Management Practices (BMPs). It is noted that the exposed soils in the basins do not represent topsoil, which was historically removed during construction of the Pacoima Spreading Grounds in the 1930s. Also, implementation of the Project would result in an increase in pervious surface area, where the concrete-sided intake canal is replaced with underground RCPs and an earthen surface. This surface would be contiguous with, and managed the same as, the existing earthen surface in the headworks area. This area does not experience substantial soil erosion. All excavation activities would occur below grade (e.g., within the channel, spreading basins) and, therefore, would not result in off-site transport of sediment (i.e., erosion). Through compliance with RR HYD-1 during construction activities, there would be a less than significant impact related to soil erosion and loss of topsoil and no mitigation is required. Operation of the Project would not impact soil erosion, because there would be no long-term changes to the regular inspection and maintenance operations that have occurred historically.

c) Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in onsite or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?

No Impact. Liquefaction and landslides are addressed under Thresholds 3.6(a)(iii) and 3.6(a)(iv) above, and there would be no impact associated with these conditions. Because liquefaction is not expected at the Project site, there would also be no impacts related to lateral spreading, a liquefaction-related phenomena. Land subsidence and collapse occur due to the loss of surface elevation due to the removal of subsurface support, such as removal of water, oil, or gas. The Project would not involve the removal of water or other media that would result in subsidence. As discussed, the Project does not include any habitable structures or structures whose height, mass, or materials would pose a hazard in the presence of unstable geologic materials. Therefore, there would be would be no impact related to the potential presence of unstable geologic units due to construction or operation of the Project and no mitigation is required.

d) Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?

Less than Significant Impact. Expansive soils are soils that swell when they absorb water and shrink as they dry, such as pure clay soils and claystone. The hazard associated with expansive soils is that they can overstress and cause damage to the foundation of buildings set on top of them. There are known clay layers underlying the Project site. However, these layers would be removed throughout the spreading basins to facilitate a greater rate and volume of groundwater infiltration. Where clay layers would remain beneath the site, such as the headworks area, the Project would not involve construction of any structures that would pose a substantial risk due to location on expansive soil. There would be a less than significant impact related to expansive soils due to construction and operation of the Project and no mitigation is required.

[8] Order No. 2009-0009-DWQ, NPDES No. CAS000002, adopted by the SWRCB on September 2, 2009 (effective for all project sites on July 1, 2010) and most recently amended by Order No. 2012-0006-DWQ on July 17, 2012.

e) Would the project have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

No Impact. The Project does not include the construction of any septic systems. The construction crew would be served by portable toilets that would be brought to the site during construction activities and removed at the end of construction activities. There would be no impact related to waste water disposal due to construction or operation of the Project and no mitigation is required.

MITIGATION MEASURES

There would be no significant impacts related to geology and soils; therefore, no mitigation is required.

3.7 GREENHOUSE GAS EMISSIONS	Potentially Significant Impact	Less Than Significant with Mitigation	Less than Significant Impact	No Impact
Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

Information in this section is derived from the *Revised Air Quality, Greenhouse Gas Emissions, and Health Risk Assessment Impact Analysis* (Revised Air Quality Report) dated October 2017 and prepared by Vista Environmental (Vista 2017a). This report is provided in its entirety in Appendix A.

IMPACT ANALYSIS

Regulatory Setting

State

The State currently has no regulations that establish ambient air quality standards for greenhouse gas (GHG) emissions. However, the State has passed numerous laws directing the California Air Resources Board (CARB) to develop actions to reduce GHG emissions. Those most germane to the analysis of the Project's GHG emissions are listed below; please refer to the Air Quality Report in Appendix A for a complete listing of all GHG-related regulations.

Executive Order S-3-05

In June 2005, the California Governor issued Executive Order S-3-05, GHG Emissions, which established the following reduction targets:

- 2010: Reduce greenhouse gas emissions to 2000 levels.
- 2020: Reduce greenhouse gas emissions to 1990 levels.
- 2050: Reduce greenhouse gas emissions to 80 percent below 1990 levels.

The executive order directed the secretary of the California Environmental Protection Agency (CalEPA) to coordinate a multi-agency effort to reduce GHG emissions to the target levels. To comply with the Executive Order, the secretary of CalEPA created the California Climate Action Team (CAT), made up of members from various State agencies and commissions. In March 2006, the team released its first report, which proposed to achieve the targets by building on the voluntary actions of businesses, local governments, and communities and through State incentive and regulatory programs.

Assembly Bill 32

In 2006, the California State Legislature adopted Assembly Bill 32 (AB 32), the California Global Warming Solutions Act of 2006. AB 32 requires CARB to adopt rules and regulations that would achieve GHG emissions equivalent to statewide levels in 1990 by 2020 through an enforceable

statewide emission cap which was phased in starting in 2012. The 2020 target of 427 million metric tons of carbon dioxide equivalent ($MMTCO_2e$) requires the reduction of 169 $MMTCO_2e$, or approximately 30 percent from the State's projected 2020 business as usual emissions of 596 $MMTCO_2e$. CARB approved a *Climate Change Scoping Plan* as required by AB 32 in 2008; this plan is required to be updated every five years. The *Climate Change Scoping Plan* proposes a "comprehensive set of actions designed to reduce overall carbon GHG emissions in California, improve our environment, reduce our dependence on oil, diversify our energy sources, save energy, create new jobs, and enhance public health" (CARB 2008). The *Climate Change Scoping Plan* has a range of GHG-reduction actions which include direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, market-based mechanisms such as a cap-and-trade system, and an AB 32 implementation regulation to fund the program. On February 10, 2014, CARB released the Draft Proposed First Update to the *Climate Change Scoping Plan* (CARB 2014). The board approved the final *First Update to the Climate Change Scoping Plan* on May 22, 2014. The first update describes California's progress towards AB 32 goals, stating that "California is on track to meet the near-term 2020 greenhouse gas limit and is well positioned to maintain and continue reductions beyond 2020 as required by AB 32" (CARB 2014). The latest update, *Second Update to the Climate Change Scoping Plan*, was adopted in December 2017 and incorporates the 40 percent reduction to 1990 emissions levels by 2030 of Senate Bill (SB) 32, as discussed below.

Executive Order B-30-15, Senate Bill 32, and Assembly Bill 197

On April 29, 2015, the California Governor issued Executive Order B-30-15 that aims to reduce California's GHG emissions 40 percent below 1990 levels by 2030. This executive order aligns California's GHG reduction targets with those of other international governments, such as the European Union that set the same target for 2030 in October 2014. This target will make it possible to reach the ultimate goal of reducing GHG emissions 80 percent under 1990 levels by 2050 (per Executive Order S3-05) that is based on scientifically-established levels needed in the United States to limit global warming below two degrees Celsius – the warming threshold at which scientists say there will likely be major climate disruptions. AB 197 (September 8, 2016) and SB 32 (September 8, 2016) codified into statute the GHG emissions reduction targets of at least 40 percent below 1990 levels by 2030 as detailed in EO B-30-15. AB 197 also requires additional GHG emissions reporting that is broken down to sub-county levels and requires CARB to consider the social costs of emissions impacting disadvantaged communities. The *Second Update to the Climate Change Scoping Plan*, as discussed above, includes the statutory GHG reduction requirements that were not included in the current Scoping Plan, including SB 32, SB 350, and SB 650 (which establishes priority GHG reduction targets for designated types of greenhouse gases such as methane) (CARB 2017).

Executive Order S-1-07

Executive Order S-1-07 was issued in 2007 and proclaims that the transportation sector is the main source of GHG emissions in the State, since it generates more than 40 percent of the State's GHG emissions. It establishes a goal to reduce the carbon intensity of transportation fuels sold in the State by at least ten percent by 2020. In 2009, CARB approved the proposed regulation to implement a low carbon fuel standard which was anticipated to reduce GHG emissions by about 16 million metric tons (MMT) per year by 2020. It is anticipated that compliance with the low carbon fuel standard will be based on a combination of both lower carbon fuels and more efficient vehicles.

Assembly Bill 1493

On July 22, 2002, AB 1493 (also known as the Pavley Bill, in reference to its author Fran Pavley) was enacted and required CARB to develop and adopt regulations that reduce GHGs emitted by passenger vehicles and light duty trucks. In 2004, CARB approved the "Pavley I" regulations limiting the amount of GHGs that may be released from new passenger automobiles that are being phased in between model years 2009 through 2016. The second set of regulations "Pavley II" is currently in development and will be phased in between model years 2017 through 2025 and will reduce emissions by 45 percent by the year 2020.

Regional

South Coast Air Quality Management District Working Group

Since neither CARB nor the Office of Planning and Research (OPR) had developed GHG emissions threshold, in 2008 the SCAQMD convened a Greenhouse Gas Significance Threshold Working Group to provide guidance to local lead agencies on determining the significance for GHG emissions in their CEQA documents. At the September 28, 2010, Working Group meeting, the SCAQMD released its most current version of the draft GHG emissions thresholds, which recommends a tiered approach that either provides a quantitative annual threshold of 3,500 metric tons of carbon dioxide equivalent ($MTCO_2e$) for residential uses, 1,400 $MTCO_2e$ for commercial uses, and 3,000 $MTCO_2e$ for mixed uses. An alternative annual threshold of 3,000 $MTCO_2e$ for all land use types is also proposed by SCAQMD. Although the SCAQMD provided substantial evidence supporting the use of the above threshold (3,000 $MTCO_2e$ for all land use types), as of November 2018, the SCAQMD Board has not yet considered or approved the Working Group's thresholds. It should be noted that SCAQMD's Working Group's thresholds were prepared prior to the issuance of Executive Order B-30-15 on April 29, 2015, that provided a reduction goal of 40 percent below 1990 levels by 2030. This target was codified into statute through passage of AB 197 and SB 32 in September 2016.

This analysis has relied on the SCAQMD Working Group's recommended thresholds. It is noted the SCAQMD's Working Group's thresholds are not intended to be applied to construction emissions in the same way as ongoing (i.e., operational) emissions. The construction emissions associated with a project are generally amortized over a 30-year period, and one year's amortized emissions are added to one year's operational emissions. For the proposed Project, the worst-case one-year construction emissions have not been amortized and are considered in total against the Working Group's annual threshold.

City of Los Angeles

Green LA/Climate LA

In May 2007, the City of Los Angeles released the climate action plan *Green LA: An Action Plan to Lead the Nation in Fighting Global Warming* (GreenLA), which outlines over 50 action items to reduce emissions to the goal of 35 percent below 1990 levels by 2030 as well as measures to adapt to the effects of climate change. In 2008, *ClimateLA* was published as the implementation program that provides detailed information about each action item discussed in the GreenLA framework.

Regulatory Requirements

No regulatory requirements are applicable to the analysis of the Project's GHG emissions.

Impact Discussion

a) Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less than Significant Impact. The GHG emissions resulting from implementation of the Project were calculated using CalEEMod using the same model inputs as described for the calculation of criteria pollutants in Section 3.3, Air Quality. As with the analysis in Section 3.3, the worst-case annual GHG emissions were calculated using CalEEMod Version 2016.3.1 from use of either 14-cy or 18-cy capacity haul trucks, whichever resulted in higher emissions. Table 3-9, Annual Greenhouse Gas Emissions, summarizes the results of the GHG emissions modeling for construction of the Project.

TABLE 3-9
ANNUAL GREENHOUSE GAS EMISSIONS

	Annual GHG Emissions ($MTCO_2e$)
On-Site Construction Equipment	760.60
Worker Trips	28.98
Demolition Haul Trucks	1.05
14-cy Capacity Haul Trucks	1,249.71
18-cy Capacity Haul Trucks	1,614.24
Worst-CaseTotal Emissions[a]	**2,404.87**
SCAQMD Draft Threshold	*3,000*
Exceeds Threshold?	**No**

GHG: greenhouse gas; $MTCO_2e$: metric tons of carbon dioxide equivalent

[a] Based on highest of either 14- or 18-cy haul truck emissions.

Source: Vista 2017a (Appendix A).

As shown, the Project would generate approximately 2,404.87 $MTCO_2e$ for the worst-case construction year. As discussed above, the SCAQMD Working Group has proposed a Bright Line annual threshold for a cumulative global climate change impact of 3,000 $MTCO_2e$ for all land use types. Also as discussed above, it is noted that this threshold is intended for permanent land use changes, rather than temporary construction activities. Specifically, the construction emissions associated with a project are generally amortized over a 30-year period, and one year's amortized emissions are added to one year's operational emissions. However, based on the approximately 20-month construction period and to provide a conservative analysis of GHG emissions, the 3,000 $MTCO_2e$ per year threshold has been applied to the Project's construction activities. As indicated, the worst-case annual construction GHG emissions would be below the 3,000 $MTCO_2e$ per year threshold. No substantive change would occur in operational GHG emissions, as operation and maintenance requirements would be similar for the proposed Project as the existing conditions. Therefore, Project implementation would not result in a cumulative impact related to GHG emissions. There would be a less than significant impact and no mitigation is required.

b) Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Less than Significant Impact. As discussed above, the City of Los Angeles has adopted a climate action plan (GreenLA) and the associated *ClimateLA.* GreenLA details Action W3, which

requires the City to implement an innovative water and wastewater integrated resources plan that will maximize use of recycled water including capture and reuse of storm water. The Project would increase the water-holding capacity of the spreading grounds from 530 acre-feet (af) to 1,197 af and would increase the percolation rate of the spreading basins from 65 cubic feet per second (cfs) to 142 cfs. As such, the Project promotes the implementation of the City's climate action plan, which meets and exceeds the AB 32 GHG emissions reduction targets as promulgated through the SCAQMD Working Group threshold. Additionally, the GHG emissions shown in Table 3-9 would not continue, as with a new land use, but would cease when the Project construction is complete and during long-term operation. Therefore, the Project would not conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing GHG emissions. There would be a less than significant impact and no mitigation is required.

MITIGATION MEASURES

There would be no significant impacts related to GHG emissions; therefore, no mitigation measures are required.

3.8 HAZARDS/HAZARDOUS MATERIALS	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant Impact	No Impact
Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☐	☒
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter-mile of an existing or proposed school?	☐	☐	☒	☐
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e) For a Project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project result in a safety hazard or people residing or working in the Project area?	☐	☐	☐	☒
f) For a Project within the vicinity of a private airstrip, would the Project result in a safety hazard for people residing or working in the Project area?	☐	☐	☐	☒
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
h) Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☒

Information in this section is derived in part from the *Phase I Environmental Site Assessment*, Pacoima Spreading Grounds, Los Angeles, California (Phase I ESA) dated June 2015 and prepared by Geosyntec Consultants (Geosyntec 2015a); and the *Phase II Environmental Site Assessment, Pacoima Spreading Grounds Headwords, Los Angeles California* (Phase II ESA) dated October 2015 and prepared by Geosyntec Consultants Geosyntec Consultants 2015b). These reports are provided in their entirety in Appendices D-1 and D-2, respectively.

IMPACT ANALYSIS

Regulatory Requirements

RR HAZ-1 Construction activities at the Project site must comply with existing federal, State, and local regulations regarding hazardous material use, storage, disposal, and transport to prevent Project-related risks to public health and safety. All on-site generated waste that meets hazardous waste criteria shall be stored, manifested, transported, and disposed of in accordance with the *California Code of Regulations*

(Title 22) and in a manner to the satisfaction of the local Certified Unified Program Agency (CUPA), the Los Angeles County Fire Department.

Additionally, RR TRA-1 from Section 3.16, Traffic and Transportation, related to temporary traffic control would be applicable to the analysis of emergency response and evacuation plans.

Impact Discussion

a) Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

No Impact. Operation of the Project would not involve the routine transport, use, or disposal of hazardous materials beyond what is used for the current operation of the Pacoima Spreading Grounds, such as fuels, paints, and solvents. There would be no impact and no mitigation is required.

b) Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Less than Significant Impact. Implementation of the Project would involve the limited transport, storage, use, and/or disposal of common construction-related hazardous materials, including oil and grease, solvents, diesel fuel, and other chemicals in vehicles, trucks, and heavy equipment. These materials could be released into the environment in small amounts in the event of an accident. Implementation of the Project would not require the use of acutely hazardous materials or substances. Operational use of hazardous materials is address in Threshold 3.8(a). To prevent environmental hazards, the handling of hazardous materials used in construction equipment would have to be conducted in accordance with existing regulations (RR HAZ-1). These regulations include the transport of hazardous materials; on-site storage and use of hazardous materials; and procedures to implement in the event of a spill. In addition, under RR HYD-1, the Project would be constructed in compliance with Construction General Permit requirements.

Phase I ESA

A Phase I ESA was prepared for the Project site to determine whether any Recognized Environmental Conditions (RECs) related to past or present land uses on and around the site could present a hazard during construction of the Project. The Phase I ESA identified three RECs at the site:

1. The closed San Fernando City Landfill and abandoned oil and gas wells located adjacent to the site (to the northeast) are potential sources of gas migration to the site.
2. The two former underground storage tanks (250 gallons each) for gasoline that were located on site at 10450 Arleta Avenue (northeast portion of the site within the headworks).
3. The petroleum hydrocarbons and lead detected in soil samples during a 2003 Phase II ESA performed in the northeast portion of the site (i.e., the headworks).

Based on these findings, a Phase II ESA was performed in the headworks area.

Phase II ESA

The Phase II ESA involved advancing seven soil borings to a depth of 10 below ground surface (bgs); collecting soil samples at approximate depths of 1, 3, 7, and 10 feet bgs from each boring location for analysis of total petroleum hydrocarbons (TPH) and California Title 22 metals; installation of soil vapor probes at a depth of 10 feet bgs at 2 boring locations (SV-1 and SV-7); and collecting soil vapor samples from both soil vapor probe locations for analysis of volatile organic compounds (VOCs) and fixed gases. Laboratory testing of the soil samples from depths of 1 and 10 feet bgs was completed initially, with the soil samples from depths of 3 and 7 feet bgs retained for testing as a contingency. Based on the laboratory test results, the soil samples from approximate depths of 3 and 7 feet bgs at two locations (S-2 and S-3) were submitted for testing. The soil boring locations from the Phase II ESA in the headworks area are shown on Exhibit 3-5, Soil Boring Locations; and the results of the soil and soil vapor testing is discussed below. Refer to the Phase II ESA in Appendix D-2 of this Recirculated IS/MND for further description of the methodology, results, and conclusions of the Phase II ESA.

Total Petroleum Hydrocarbon Soil Sampling Results

Table 3-10, TPH Soil Sampling Results, presents the results of laboratory testing for motor oil-, diesel-, and gasoline-range TPH at approximate depths of 1 and 10 feet bgs.

TABLE 3-10
TPH SOIL SAMPLING RESULTS

Boring ID and Depth (feet)			SV-1		S-2		S-3		S-4		S-5		S-6		SV-7	
Screening Value (mg/kg)	**RSL (I)**	**RSL (R)**	**1**	**9**	**1**	**10**	**1.5**	**9**	**1**	**9**	**1**	**10.5**	**1**	**9**	**1**	**10**
TPH as Motor Oil	3,500,000	230,000	260	ND	86	ND	160	ND	ND	ND	ND	ND	ND	ND	ND	ND
TPH as Diesel	3,500,000	230,000	25	ND	21	ND	19	ND	ND	ND	ND	ND	ND	ND	ND	ND
TPH as Gasoline	–	–	ND	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND

Mg/kg: milligrams per kilogram; RSL: Regional Screening Levels; (I): industrial soil; (R): residential soil; ND: Not Detected.
Source: Geosyntec 2015b. (Appendix D-2)

As shown, TPH was not detected at concentrations in any samples near or above the U.S. Environmental Protection Agency's (USEPA) Regional Screening Levels for both industrial and residential land uses. Specifically, TPH was not detected in any of the soil samples except for SV-1, S-2, and S-3 at approximately 1 foot bgs; these concentrations are well below the screening levels. Therefore, TPH is not considered a contaminant of concern at the Project site.

Title 22 Metals Soil Sampling Results

Table 3-11, Total Metals Soil Sampling Results, and Table 3-10, Soluble Metals Soil Sampling Results, presents the results of laboratory testing for the California Title 22 Metals, so named because they are listed in Title 22 of the *California Code of Regulations* [Section 66261.24(a)(2)(A)] at approximate depths of 1 and 10 feet bgs for all constituents and also at approximate depths of 3 and 7 feet bgs for lead only. As shown in Table 3-9, Title 22 metals were detected in soil samples collected from borings SV-1, S-2, S-3, S-4, S-5, S-6, and SV-7. With the exception of arsenic and lead, concentrations of all metals detected were below the USEPA Regional Screening Levels (RSLs) for both industrial and residential land uses.

Legend

- Soil Sampling Location
- Soil and Soil Vapor Sampling Location
- Indicating Potential Area of Concern

ft bgs = feet below ground surface
Service Layer Credits: Google Earth: May 2015

Source: Geosyntec Consultants 2015

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Soil Boring Locations

Exhibit 3-5

Pacoima Spreading Grounds Improvement Project

N W E S

150 75 0 150 Feet

BonTerra PSOMAS

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TABLE 3-11
TOTAL METALS SOIL SAMPLING RESULTS

Boring ID and Depth (feet)						SV-1		S-2				S-3				S-4		S-5		S-6		SV-7	
Screening Value	**RSL (I) (mg/kg)**	**RSL (R) (mg/kg)**	**TTLC (mg/kg)**	**STLC (mg/l)**	**10x STLC (mg/l)**	**1**	**9**	**1**	**3**	**7**	**10**	**1.5**	**3**	**7**	**9**	**1**	**9**	**1**	**10.5**	**1**	**9**	**1**	**10**
Antimony	470	31	500	15	150	ND	ND	ND	–	–	ND	ND	–	–	ND	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic	3	1	500	5	50	ND	ND	ND	–	–	ND	0.896	–	–	ND	1.35	ND	ND	ND	ND	ND	ND	ND
Barium	220,000	15,000	10,000	100	1,000	212	105	312	–	–	71.7	306	–	–	147	134	86.4	128	123	242	91.7	180	223
Beryllium	2300	160	75	0.75	7.5	0.352	ND	ND	–	–	ND	ND	–	–	ND	ND	ND	ND	ND	0.434	ND	ND	0.349
Cadmium	980	70	100	1	10	1.69	0.732	1.69	–	–	0.655	2.84	–	–	1.01	1.01	0.719	0.903	0.855	1.81	0.673	1.02	1.39
Chromium	120,000	1,800,000	2,500	560/ 5.0*	50**	22.7	7.23	10.5	–	–	9.31	11.6	–	–	14.7	12.3	6.36	11.4	11.0	26.2	5.66	11.1	17.1
Cobalt	350	23	8,000	80	800	17.8	8.45	8.88	–	–	6.22	13.6	–	–	11.4	11.3	7.39	10.6	9.86	20.4	7.56	11.7	16.2
Copper	47,000	3,100	2,500	25	250	28.1	11.8	27.8	–	–	9.94	108	–	–	14.7	20.0	11.0	16.5	40.7	37.7	10.8	18.9	19.8
Lead	800	400	350	5	50	***53.6***	0.518	***117***	***173***	1.05	0.663	***515***	***58.6***	15.9	4.18	7.42	0.681	2.25	20.7	***66.6***	0.897	3.49	1.73
Mercury	40	9	20	0.2	2	ND	ND	ND	–	–	ND	ND	–	–	ND	ND	ND	ND	ND	ND	ND	ND	ND
Molybdenum	5,800	390	3,500	350	3,500	ND	ND	ND	–	–	1.86	ND	–	–	ND	ND	ND	ND	0.715	ND	ND	ND	ND
Nickel	22,000	1,500	2,000	20	200	20.1	5.62	14.9	–	–	3.95	13.4	–	–	10.2	9.72	4.67	8.65	10.9	20.3	4.3	8.51	12.5
Selenium	5,800	390	100	1	10	ND	ND	ND	–	–	ND	ND	–	–	ND	ND	ND	ND	ND	ND	ND	ND	ND
Silver	5,800	390	500	5	50	ND	ND	ND	–	–	ND	ND	–	–	ND	ND	ND	ND	ND	ND	ND	ND	ND
Thallium	1	12	700	7	70	ND	ND	ND	–	–	ND	ND	–	–	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vanadium	5,800	390	2,400	24	240	48.6	15.5	23.5	–	–	11.9	14.4	–	–	24.3	25.1	13.2	19.1	26.2	50.1	13.2	22.2	30.9
Zinc	34,000	350,000	5,000	250	2,500	97.2	26.9	232	–	–	19.8	383	–	–	43.8	49.6	22.6	39.2	37.3	104	24.1	44.1	46.2

Note: values in ***bold italics*** exceed screening value

*Must meet both the STLC limit at 560 and USEPA toxicity characteristic leaching procedure (TCLP) limit; ** 10 times the TCLP value of 5 mg/l

Mg/kg: milligrams per kilogram; mg/l: milligrams per liter; RSL: Regional Screening Levels; (I): industrial soil; (R): residential soil; TTLC: Total Threshold Limit Concentration; STLC: Soluble Threshold Limit Concentration; ND: Not Detected; –: sample not tested for this constituent.

Source: Geosyntec 2015b. (Appendix D-2)

Arsenic was detected at concentrations above the USEPA RSL for residential land uses, but not industrial land uses, in the soil sample collected at a depth of 1 foot bgs at location S-4. It is noted that the soils samples were compared to both the residential RSLs, in addition to the industrial RSLs, in light of the potential for a portion of the headworks area to be developed as a public recreation area in the future. However, the detected concentration of arsenic is within the background values for Southern California soils. The California Department of Toxic Substances Control (DTSC) document *Evaluation of Arsenic as a Chemical of Potential Concern at Proposed School Sites in the Los Angeles Area* reports the 95 percent Upper Confidence Limit of the 99th percentile concentration (CUL0.95(X0.99)) for arsenic in the Los Angeles Unified School District as 11.3 mg/kg and states that "If all the onsite samples are less than the CUL0.95(X0.99) then arsenic can be eliminated as a chemical of potential concern at the site." The highest reported arsenic concentration in the soil samples analyzed from the Project site is 1.35 mg/kg. Therefore, arsenic is not considered a contaminant of concern at the Project site.

Lead was detected at concentrations above the USEPA RSL for residential land uses in the soil sample collected at a depth of 1.5 feet bgs at location S-3. Also, lead was detected at concentrations of higher than 10xSTLC (Soluble Threshold Limit Concentration) in soil samples collected at an approximate depth of 1 foot bgs in locations SV-1, S-2, S-3 and S-6. Based on these results, the Waste Extraction Test (WET) analysis was subsequently performed on these samples. The WET analysis resulted in lead concentrations of higher than the STLC action level (i.e., 5 mg/l) only in the soil samples collected at an approximate depth of 1 foot bgs at locations S-2 and S-3. It is noted locations S-2 and S-3 are outside the Project site limits, but within the Pacoima Spreading Grounds' property. As shown on Exhibit 3-5, the locations of elevated lead in shallow soils are situated north of the Project construction boundary for the headworks area. Specifically, the nearest location (SV-3) is located approximately 75 feet from the Project site limits.

Based on these results (i.e., WET analysis), to delineate the vertical extent of lead, the soil samples collected at depths of 3 and 7 feet bgs at locations S-2 and S-3 were analyzed for both total lead (see Table 3-11) and soluble lead (see Table 3-12).

TABLE 3-12
SOLUBLE METALS SOIL SAMPLING RESULTS

Boring ID and Depth (feet)		**SV-1**	**S-2**			**S-3**			**S-6**
Screening Value (mg/l)	**STLC**	**1**	**1**	**3**	**7**	**1.5**	**3**	**7**	**1**
Lead	5	0.733	***11.7***	***11.5***	ND	***15.6***	***5.89***	0.275	0.969
Note: values in ***bold italics*** exceed screening value Mg/l: milligrams per liter; STLC: Soluble Threshold Concentration Limit; ND: Not Detected. Source: Geosyntec 2015b. (Appendix D-2)									

As shown, the samples from an approximate depth of 3 feet bgs at locations S-2 and S-3 had lead concentrations of higher than the STLC action level (i.e., 5 mg/l), whereas the samples collected at an approximate depth of 7 feet bgs did not have lead concentrations of higher than the STLC action level. Locations S-2 and S-3 are near the hazardous materials storage area for Pacoima Spreading Grounds, which is primarily used to store paint, and are consistent with the results of the Phase II ESA performed in 2003.

Based on the results of the Phase II ESA, the LACFCD arranged for the delineation of lead-impacted soils by the Geotechnical and Materials and Engineering Division of the LACDPW, for eventual excavation and disposal. The LACDPW completed the delineation of the lead-impacted area was in October 2015. The delineation was performed by hand augering soil borings and collecting soil samples in a "step-out" pattern that surrounds the area of known impact until laboratory testing indicates the horizontal and vertical limits of contamination are reached on all sides. While the delineation of lead-impacted soils was initiated by the investigations necessary to complete the Project, excavation of these soils is not part of the Project and will be completed separately from Project construction activities. The lead-impacted soil area is outside the limits of Project construction; therefore, construction activities would not disturb this area. Because of the distance between the Project site and the lead-impacted soils (at least 75 feet), implementation of the Project is not dependent or otherwise related to the removal of these shallow soils. Additionally, prior to commencement of the Project, the lead-impacted soil area would be fenced off to prevent any access during construction activities. Based on this delineation, the LACDPW will be arranging for the excavation and appropriate disposal of the localized, shallow area of lead-impacted soils by a qualified consultant. This excavation will occur separately from earth-moving activities associated with the Project, and the excavated area will be backfilled with clean fill soils. This approach is to ensure that lead adsorbed to soil particles is not inadvertently released into the environment and potentially affect the construction crew or surrounding residents and other receptors during Project implementation.

Soil Vapor Sampling Results

Table 3-13, Soil Vapor Sampling Results, presents the results of laboratory testing of soil vapor samples collected at the two soil vapor probes locations (SV-1 and SV-7) installed at approximate depths of 10 feet bgs.

TABLE 3-13
SOIL VAPOR SAMPLING RESULTS

	Boring ID and Depth (feet)		SV-1	SV-7
Screening Value (µg/m³)	**RSL (I)**	**RSL (R)**	**10**	**10**
VOCs				
Acetone	280,000,000	32,000,000	22	14
Benzene	3,200	360	36	ND
2-Butanone	NL	NL	8.5	7.7
1,4-Dichlorobenzene	2,200	260	5.0	7.1
Dochlorodiflouromethane	880,000	100,000	2.7	ND
Ethylbenzene	9,800	1,100	15	ND
4-Ethyltoluene	NL	NL	8.7	ND
Tetrachloroethene	94,000	11,000	47	21
Toluene	44,000,000	5,200,000	200	ND
1,2,4-Trimethylbenzene	62,000	7,300	23	ND
1,3,5-Trimethylbenzene	NL	NL	7.9	ND
o-Xylene	880,000	100,000	26	ND
p/m-Xylene	880,000	100,000	100	ND
Fixed Gases				
Carbon Dioxide	NA	NA	1.95	2.48
Oxygen (+Argon)	NA	NA	21.2	20.6
Nitrogen	NA	NA	76.9	76.9

µg/m3: micrograms per cubic meter; RSL: Regional Screening Levels; (I): industrial soil; (R): residential soil; NL: Not Listed; NA: Not Applicable; ND: Not Detected.

Source: Geosyntec 2015b. (Appendix D-2)

As shown, a total of 13 VOCs were detected in the soil vapor samples. The number of detected VOCs as well as the concentrations (with the exception of 1,4-Dichlorobenzene) at SV-1 are higher than those at SV-7. However, all VOCs were detected at microgram per cubic meter (ug/m3) levels, below industrial guidance thresholds (e.g., California Human Health Screening Levels). The VOC concentrations detected in the headworks area are below actionable thresholds given the current use of the site (i.e., the headworks) and potential future use as a recreation area.

Also as shown in Table 3-13, three fixed gases were detected in soil vapor samples. Methane was not detected at the sampling locations. The absence of detectable levels of methane at the two soil vapor sampling locations provides additional evidence that the closed landfill and nearby oil wells do not appear to be of significant environmental concern to the site.

Spreading Grounds Soil Sampling for Disposal

The Pacoima Spreading Grounds, south of the headworks, receives surface water and debris from a large subwatershed area in the San Gabriel Mountains and the San Fernando Valley urban areas. Because of this, there is potential for pollutants common in urban areas (e.g., oils, metals, and pesticides) to enter the facility in runoff and collect in the sediment. However, the spreading grounds operated by LACFCD bypass what is referred to as the “first flush” of storm water runoff, generally about the first ¾-inch of rain, that contains the majority of pollutants that runoff can collect. Regardless, prior to sediment being accepted at the Vulcan-owned pits and Sunshine

Canyon Landfill, soil samples must be collected and laboratory tested to confirm it is not a hazardous material.

Accordingly, subsequent to preparation of the 2016 IS/MND, soil sampling and testing was performed within the spreading grounds. The results of the soil sampling and laboratory testing of soil samples collected in the spreading basins were posted online on the webpage maintained for the Project.[9] A total of 24 borings were advanced to depths of 20 to 30 feet bgs within the 12 existing basins. The analytes included: polynuclear aromatic hydrocarbons, volatile organic compounds and BTEX, semi-volatile organic compounds, organochlorine pesticides, dioxin, polychlorinated biphenyls, and Title 22 metals. Because of the number of analytes and number of borings, the tabular results are extensive; the boring locations and all test results are presented in Appendix D-3. No constituents were present in concentrations considered to be hazardous, as defined in federal and State regulations.

In summary, with the isolation of lead-impacted soil in the headworks by the LACFCD, there would be less than significant impacts related to encounter of hazardous materials that could be released into the environment during excavation and other construction activities. Compliance with RR HAZ-1 and RR HYD-1 would ensure that impacts related to use of common construction-related hazardous materials would be less than significant and no mitigation is required.

c) Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter-mile of an existing or proposed school?

Less than Significant Impact. There are no schools within ¼ mile of the Project site; however, there are schools within approximately ¼ mile of Modified Haul Route A, Haul Route B, and Haul Route C. These schools include:

- Sharp Avenue Elementary (13800 Pierce Street, Arleta)
- Bert Corona Charter School (9400 Remick Avenue, Arleta)
- Vena Avenue Elementary School (9377 Vena Avenue, Arleta)
- Montague Charter Academy (13000 Montague Street, Arleta)
- Mary Immaculate School (10390 Remick Avenue, Pacoima)
- Pacoima Middle School (9919 Laurel Canyon Boulevard, Pacoima)
- Sara Coughlin Elementary School (11035 Borden Avenue, Pacoima)
- Telfair Elementary School (10975 Telfair Avenue, Pacoima)
- Fernangeles Elementary School (12001 Art Street, Sun Valley)
- Sun Valley High School (9171 Telfair Avenue, Sun Valley)
- Devonshire Montessori School (14941 Devonshire Street, Mission Hills)
- George K. Porter Middle School (15960 Kingsbury Street, Granada Hills)
- Haskell Elementary School (15850 Tulsa Street, Granada Hills)
- Danube Avenue Elementary School (11220 Danube Avenue, Granada Hills)

[9] Soil sampling results are posted at: http://dpw.lacounty.gov/wrd/Projects/PacoimaSG/PSG-Basin-Soil-Sampling-Results.pdf.

As discussed in Section 3.3, Air Quality, local and regional emissions of criteria air pollutants would be below all SCAQMD thresholds, and TAC emissions— namely diesel particulate matter from on-site construction equipment and the haul trucks—would not result in health risks to any sensitive receptors near the Project site or the three Vulcan pits proposed for sediment disposal. These locations represent the highest concentrations of TAC emissions, because of truck idling. Therefore, the emissions of TACs from the haul trucks during travel to and from the site and the pits would be lower than that quantified in the Health Risk Assessment (Appendix A) prepared for the Project. As such, construction of the Project would not involve emissions in quantities that could be considered hazardous in the vicinity of any school. There would be a less than significant impact and no mitigation is required. Operation of the Project would not impact nearby schools due to hazardous emissions, because there would be no long-term changes to the regular inspection and maintenance operations that have occurred historically.

d) Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

No Impact. As discussed under Threshold 3.8(b), a Phase I ESA was prepared for the Project site. A Phase I ESA involves a hazardous materials records search, which includes the databases within California's Hazardous Waste and Substances List (also called the Cortese List) compiled pursuant to Section 65962.5 of the *California Government Code.* The Project site is not identified on the Cortese List. However, the site is identified on other regulatory databases related to the former underground storage tanks in the headworks area and discussed under Threshold 3.8(b). These tanks have been removed and represent no hazard to the site or the public. There would be no impact related to identification on the Cortese List or any other hazardous materials database such that a significant hazard to the public or the environmental would occur during construction or operation of the Project, and no mitigation is required.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?

f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

No Impact. The closest airport to the Project site is Whiteman Airport, which is located approximately 1.5 miles east of the Project site at the nearest point. Whiteman Airport is owned and operated by the County of Los Angeles as a public, general aviation airport (County of Los Angeles 2015b). The site is not within the Airport Influence Area of Whiteman Airport (ALUC 2003). Also, there are no private airstrips in the Project vicinity or any other public airports within two miles of the site. There would be no impact related to air traffic due to construction or operation of the Project and no mitigation is required.

g) Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less than Significant Impact. Construction activities would be staged on the Project site and would not interfere with any current emergency response plans or emergency evacuation plans for local, State, or federal agencies. As discussed in Section 3.16, Transportation, haul truck trips for sediment export were determined to result in a less than significant impact on the 56 study intersections. Additionally, any activities on or adjacent to public streets that could limit traffic flow (e.g., installation of pipes and conduits within the street right-of-way) would be conducted with traffic-control measures per the *Standard Specifications for Public Works Construction*

(Greenbook); and, for activity in the street right-of-way, the *Work Area Traffic Control Handbook* (WATCH Manual), subject to approval by the City of Los Angeles Department of Transportation (LADOT)(RR TRA-1). RR TRA-1 would ensure that construction traffic would be managed in compliance with Greenbook and WATCH Manual standards, as discussed in Section 3.16, Transportation, to ensure that existing circulation would not be impacted during Project construction in such a way that would physically impair or impede emergency response or evacuation. Therefore, compliance with RR TRA-1 would ensure that impacts related to emergency evacuation plans during construction would be less than significant. Operation of the Project would not impact emergency response, because there would be no long-term changes to the regular inspection and maintenance operations that have occurred historically.

h) Would the project expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

No Impact. The Project site is surrounded by urban land uses and is not designated as within a Very High Fire Hazard Severity Zone (VHFHSZ) (CAL FIRE 2007). There would be no impact related to wildland fire due to construction or operation of the Project and no mitigation is required.

MITIGATION MEASURES

There would be no significant impacts related to hazards and hazardous materials; therefore, no mitigation measures are required.

3.9 HYDROLOGY AND WATER QUALITY	**Potentially Significant Impact**	**Less than Significant with Mitigation**	**Less than Significant Impact**	**No Impact**
Would the project:				
a) Violate any water quality standards or waste discharge requirements?	☐	☐	☒	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation onsite or offsite?	☐	☐	☒	☐
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding onsite or offsite?	☐	☐	☒	☐
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of pollutant runoff?	☐	☐	☐	☒
f) Otherwise substantially degrade water quality?	☐	☐	☒	☐
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	☒
i) Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☒
j) Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒

IMPACT ANALYSIS

Regulatory Requirements

RR HYD-1 The Project requires that a Permit Registration Document (PRD) be filed with the State Water Resources Control Board (SWRCB) in order to obtain coverage under the National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with the Construction and Land Disturbance Activities (Order No. 2009-009-DWQ, NPDES No. CAS000002) or the latest approved general permit. The PRD consists of a Notice of Intent (NOI), Risk Assessment, Site Map, Storm Water Pollution Prevention Program (SWPPP), annual fee, and a signed certification statement. Pursuant to permit requirements, Best Management Practices (BMPs) must be installed and operational during construction activities for reducing or eliminating construction-related pollutants in site runoff. In addition, with the Project requires compliance with the appropriate requirements listed in the adopted Municipal Separate Storm Sewer System (MS4) Permit (Order No. R4-2012-0175, NPDES No. CAS004001), which regulates municipal storm water and non-storm water discharges.

Impact Discussion

a) Would the project violate any water quality standards or waste discharge requirements?

f) Would the project otherwise substantially degrade water quality?

Less than Significant Impact. The Project site is within the jurisdiction of the Los Angeles (Region 4) Regional Water Quality Control Board (RWQCB). The Project could result in short-term, construction-related impacts to surface water quality from grading and other construction activities (e.g., erosion, spills, and leaks from construction equipment). Compliance with RR HYD-1 regarding implementation of non-storm water management and pollution-control BMPs, as outlined in the SWPPP for the Project, would ensure the pollutant levels in runoff do not violate standards. Impacts on water quality during construction activities would be less than significant with compliance with RR HYD-1.

Operation of the Project would not violate any water quality standards or waste discharge requirements, as it would not generate any new land use or introduce any new sources of wastewater discharge or effluent that could adversely impact wastewater. The Project would not generate wastewater that would require conveyance or treatment in on-site septic systems or at wastewater plants in the region. Portable toilets would be provided for employees at the construction areas, and these portable toilets would be regularly cleaned and their contents disposed of offsite by an outside company. Wastewater from these portable toilets would not exceed RWQCB treatment requirements, and the Project would not need new or expanded treatment facilities. Construction and operation of the Project would not involve wastewater discharges that could violate standards or degrade water quality. There would be less than significant impacts related to surface water quality and no mitigation is required.

b) Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?

Less than Significant Impact. The Project site is underlain by the San Fernando Valley Groundwater Basin, and the purpose of the Pacoima Spreading Grounds is to recharge this Basin. Other facilities that recharge this Basin include the Lopez, Tujunga, and Hansen Spreading Grounds. Implementation of the Project would involve the Pacoima Spreading Grounds being off-line (i.e., not accepting water diverted from Pacoima Wash) for up to two complete wet seasons. The Pacoima Spreading Grounds has historically conserved an average of 5,079 af of water per year, through September of the 2016-2017 water year[10] (LACDPW 2017). Southern California is currently experiencing abnormally dry conditions, and an average or near-average storm year did not occur for several years until the 2016-2017 wet season. However, for purposes of this analysis, it is conservatively assumed that implementation of the Project would result in the loss of approximately 10,158 af[11] of water for infiltration as it would bypass the site and drain to the ocean during Project construction.

The San Fernando Valley Ground Basin is an adjudicated basin, and the Upper Los Angeles River Area Watermaster (ULARA) is charged with determining a safe yield for pumpers to prevent groundwater depletion. The ULARA tracks the operations of all five spreading grounds that recharge the Basin, including Pacoima Spreading Grounds, as well as proposed projects that would enhance long-term groundwater recharge. The Pacoima Spreading Grounds Improvement Project is identified in the ULARA's recent annual reports. Therefore, the ULARA would be aware that recharge would not be occurring at the Project site during construction activities and would compensate the safe yield in those years accordingly. Also, the other four spreading facilities, including Branford Spreading Basin, Hansen Spreading Grounds, Lopez Spreading Grounds, and Tujunga Spreading Grounds, would continue to operate during most or all of the Project's construction period. The proposed Lopez Spreading Grounds Improvement Project may overlap a portion of the proposed Project's construction period. The temporary reduction of approximately 5,079 af/y of recharge represents approximately 2.9 percent of the total allowable pumping of 176,755 af for the 2015-2016 water year (LACDPW 2017; ULARA 2016). Additionally, the reduction in groundwater recharge can be offset temporarily by use of imported water, if determined necessary by the ULARA. Finally, the proposed Project's increased water recharge of an estimated 10,500 af/y would compensate for the reduced recharge of approximately 10,158 af within a short time, depending on annual rainfall amounts. For all of these reasons, the temporary loss of Pacoima Spreading Grounds use for up to two storm seasons during construction activities would not interfere substantially with groundwater recharge or result in a lowering of the groundwater table, in the San Fernando Valley Groundwater Basin. Removal of the clay layer would not reduce the effectiveness of the soil's filtration process such that water quality in the San Fernando Groundwater Basin would be adversely affected. Soil is a highly effective filter of impurities in the water, with or without a clay layer(s), especially as the depth to the groundwater basin fluctuated between 300 feet and 350 feet below ground surface between the years 2004 and 2008 (LACDPW 2009).

Implementation of the Project would involve use of water to suppress fugitive dust emissions during excavation grading activities. This water would be delivered to the site in a water truck. The Project activities would require the use of municipal water supplies during construction activities; however, the amount of water to be used for dust control would be finite and would ensure that fugitive dust emissions do not pose a hazard to construction workers or surrounding receptors. There would be less than significant impact on groundwater supplies related to fugitive dust irrigation.

[10] Water years run from October to October of each year.
[11] Twice the average conservation volume of 5,079 af, as construction activities would place the Pacoima Spreading Grounds offline for up to two wet seasons.

In the long term, the Project is expected to increase annual water conservation by an estimated 10,500 af/y (in a wet year; however, the actual amount of water conservation would vary greatly from year to year depending on the availability of storm water). This is roughly twice the historic average water conservation currently provided in an average wet year and similar to the conservative estimate of groundwater recharge lost during the Project construction period. Therefore, operation of the Project would be beneficial to groundwater supplies and groundwater recharge. There would be a less than significant impact on groundwater supplies from implementation of the Project, and no impact during long-term operation; no mitigation is required.

c) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation onsite or offsite?

d) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding onsite or offsite?

Less than Significant Impact. The spreading basins would be off-line during Project implementation; and, based on the historical average, an estimated 10,158 af of flows in the Pacoima Wash would bypass the site annually and drain to the ocean. An existing drainage infrastructure is in place to manage this runoff such that there would be no adverse downstream effects (i.e., erosion, siltation, flooding). Within the basins, the only water present would be from rain and dust-control irrigation from water trucks. These water sources would percolate into the soil and would not run off the Project site. At the headworks, the replacement of the existing below-grade open intake canal with underground pipelines would not change the pattern of drainage, only the conveyance structure (i.e., from open culvert to closed/underground pipelines).

Finally, as discussed under Threshold 3.9(a)(f), the Project would be required to implement non-storm water management and pollution-control BMPs, as outlined in the SWPPP for the Project (RR HYD-1), in order to manage pollutants in runoff including excess sediment. Therefore, construction of the Project would not alter the drainage pattern or increase the rate or volume of storm water runoff such that on- or off-site erosion, siltation, or flooding would occur. There would be a less than significant impact due to construction and no mitigation is required. Operation of the Project would not impact existing drainage patterns, because there would be no long-term changes to the regular inspection and maintenance operations that have occurred historically.

e) Would the project create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of pollutant runoff?

No Impact. As discussed in Threshold 3.9(a), the Project would not result in additional sources of pollutant runoff (i.e., waste discharge). As discussed in Threshold 3.9(c) and 3.9(d) above, an existing drainage infrastructure is in place to manage the estimated 6,851 af of flows in Pacoima Wash/Pacoima Diversion Channel that would bypass the site annually during construction such that there would be no adverse downstream effects. Also, the Project would not create new impervious surfaces that could increase the rate or amount of storm water runoff. Therefore, the Project would have no impact on the capacity of the existing downstream storm water drainage system during construction or operation.

g) Would the project place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

h) Would the project place within a 100-year flood hazard area structures which would impede or redirect flood flows?

No Impact. According to Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map, the Project site is not located within a 100-year flood hazard area (FEMA 2008). Also, the Project would not involve the construction of any housing or other temporary or permanent habitable structures. There would be no impact related to placement of housing or structures in a flood zone due to construction or operation of the Project, and no mitigation is required.

i) Would the project expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?

No Impact. According to Exhibit G: Inundation & Tsunami Hazard Areas of the *City of Los Angeles General Plan's* Safety Element, the Project site is within the inundation area of Pacoima Reservoir (City of Los Angeles 1996). The likelihood of a seismic or other event that would result in a failure of the dam at Pacoima Reservoir during Project construction, exposing construction workers to the hazard of inundation, is not considered reasonably foreseeable and is therefore not a significant impact. The Project would not involve placing habitable structures or otherwise changing the land use for long-term operation of the site. The existing perimeter levees would not be raised, lowered, or otherwise modified as part of the Project. As such, there would be no impact related to location in an inundation area from Project construction or operation.

j) Would the project cause inundation by seiche, tsunami, or mudflow?

No Impact. The nearest large body of open water is Van Norman Lakes Reservoir, located approximately three miles to the northwest of the site. Due to distance and intervening development, a seiche at the Van Norman facility would not affect the Project site. The Pacoima Spreading Grounds holds water temporarily during percolation into the groundwater basin; however, the amount of water would not be large enough to be at risk for a seiche. Due to the distance of the Project site to the Pacific Ocean (approximately 15 miles to the southwest) and the numerous structures between the Project site and the ocean, there is no risk of on-site hazard due to tsunamis (seismically induced waves)(City of Los Angeles 1996). The Project site and surrounding areas are essentially flat, with no slopes or exposed lands that could generate mudflow in the vicinity. There would be no impacts related to tsunami, seiche, or mudflow due to construction or operation of the Project, and no mitigation is required.

MITIGATION MEASURES

There would be no significant impacts related to hydrology or water quality; therefore, no mitigation measures are required.

3.10 LAND USE AND PLANNING	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant Impact	No Impact
Would the project:				
a) Physically divide an established community?	☐	☐	☐	☒
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the Project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

IMPACT ANALYSIS

Regulatory Requirements

None required.

Impact Discussion

a) Would the project physically divide an established community?

No Impact. There are no residential uses or established communities on the Project site. The City of Los Angeles communities of Arleta and Missions Hills are located proximate to the site, and the Project would not involve any land use changes in the surrounding communities. There would be no impact related to dividing an established community due to construction or operation of the Project and no mitigation is required.

b) Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

No Impact. Under the Arleta-Pacoima and Mission Hills-Panorama City-North Hills Community Plans, the Project site has a General Plan Land Use designation of Open Space (City of Los Angeles 2009, 2010). The Project site is zoned as Open Space (OS-1XL-O), which allows for recreational facilities, natural resource preserves, public water supply reservoirs, and percolation basins, among other uses (City of Los Angeles 2015a, 2015b). The Project would not require any change in existing land uses on the Project site and would not require a General Plan amendment or zone change. Therefore, implementation of the Project would not conflict with any applicable land use plan, policy, or regulation of the City of Los Angeles adopted for the purpose of avoiding or mitigating an environmental effect. There would be no impact and no mitigation is required.

c) Would the project conflict with any applicable habitat conservation plan or natural community conservation plan?

No Impact. There is no habitat conservation plan or natural community conservation plan for the Project area. Also, the Project site is not located in a designated Significant Ecological Area (SEA)

under the County's SEA program. There would be no impact related to the SEA program due to construction or operation of the Project and no mitigation is required.

MITIGATION MEASURES

There would be no impacts related to land use and planning; therefore, no mitigation measures are required.

3.11 MINERAL RESOURCES	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant Impact	No Impact
Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☐	☐	☒

IMPACT ANALYSIS

Regulatory Requirements

None required.

Impact Discussion

a) Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

b) Would the project result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

No Impact. The Project site has been used as a spreading basin since the 1930s and has never been used for mineral resource recovery (USGS 2015). The California Geological Survey conducted a series of mineral land classification studies under the authority of the Surface Mining and Reclamation Act of 1975. The Project site is located in a Mineral Resource Zone of MRZ-3 (DOC 1979). MRZ-3 indicates that the significance of mineral resources cannot be evaluated from available data. Although sediment would be removed from the site as part of the Project, this sediment is not of value as a mineral resource.

The site-specific geologic investigation included drilling borings to depths greater than the proposed excavation activities, and no oil was encountered. Generally, oil and gas is encountered at depths of at least several hundred feet below the ground surface.

There would be no impact to mineral resources due to construction or operation of the Project and no mitigation is required.

MITIGATION MEASURES

There would be no impacts related to mineral resources; therefore, no mitigation measures are required.

3.12 NOISE	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant Impact	No Impact
Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	☒
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☒	☐	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☒	☐
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☒	☐

Information in this section is derived from the *Revised Noise Impact Analysis, Pacoima Spreading Grounds Improvement Project, City of Los Angeles* (Revised Noise Report) dated July 2017 and prepared by Vista Environmental (Vista 2017b). This report is provided in its entirety in Appendix E.

IMPACT ANALYSIS

Regulatory Setting

Federal

Surface transportation system noise is regulated by a host of agencies, including the Federal Transit Administration (FTA). Transit noise is regulated by the federal Urban Mass Transit Administration (UMTA), while freeways that are part of the interstate highway system are regulated by the Federal Highway Administration (FHWA). Although the Project is not under the jurisdiction of the FTA, the FTA is the only agency that has defined what constitutes significant construction and transportation source noise impacts from implementing a project. The FTA standards are based on extensive studies by the FTA and other governmental agencies on the human effects and reaction to noise from construction and transportation sources. The FTA recommends developing construction noise criteria on a project-specific basis that utilizes local noise ordinances if possible. However, local noise ordinances usually relate to nuisance and hours of allowed activity, and sometimes specify limits in terms of maximum levels, but are generally not practical for assessing the noise impacts of construction activities. Project construction noise criteria should take into account the existing noise environment, the absolute

noise levels during construction activities, the duration of the construction, and the adjacent land uses.

State

On-Road Vehicle Noise

Sections 27200 to 27207 of the *California Vehicle Code* provide noise limits for vehicles operated in California. For vehicles over 10,000 pounds, noise is limited to 88 decibels (dB) for vehicles manufactured before 1973, 86 dB for vehicles manufactured before 1975, 83 dB for vehicles manufactured before 1988, and 80 dB for vehicles manufactured after 1987. All measurements are based at 50 feet from the vehicle. For the Project, "on-road" vehicles over 10,000 pounds would include haul trucks and construction equipment delivery trucks/tractor trailers.

Off-Road Vehicle Noise

Sections 38365 to 38380 of the *California Vehicle* provides noise limits for off-highway motor vehicles operated in California, as follows: 92 A-weighted decibels (dBA) for vehicles manufactured before 1973, 88 dBA for vehicles manufactured before 1975, 86 dBA for vehicles manufactured before 1986, and 82 dBA for vehicles manufactured after December 31, 1985. All measurements are based at 50 feet from the vehicle.

Vibration Standards

The *California Administrative Code* (Title 14, §15000) requires that all State and local agencies implement the State CEQA Guidelines, which require the analysis of exposure of persons to excessive groundborne vibration. However, no statute has been adopted by the State that quantifies the level at which excessive groundborne vibration occurs.

Caltrans issued the *Transportation- and Construction-Induced Vibration Guidance Manual* in 2004. The manual provides practical guidance to Caltrans engineers, planners, and consultants who must address vibration issues associated with the construction, operation, and maintenance of Caltrans projects. However, this manual is also used as a reference point by many lead agencies and CEQA practitioners throughout California, as it provides numeric thresholds for vibration impacts. Thresholds are established for continuous and transient sources of vibration, which found that the human response becomes distinctly perceptible at a peak particle velocity (ppv) of 0.25 inch per second for transient sources and 0.04 inch per second ppv for continuous sources.

City of Los Angeles

Although the project is located on County of Los Angeles-owned property, the noise-sensitive receptors in proximity to the site are located in the City of Los Angeles. Therefore, City of Los Angeles noise regulations, rather than those of the County, have been applied to this analysis. Also, the County's Noise Ordinance requirements are not applicable to off-site mobile noise sources such as automobiles or heavy trucks when traveling in a legal manner on public roadways or on private property. Mobile noise source control is preempted by the federal and State laws discussed above. The City of Los Angeles Municipal Code establishes the following applicable standards related to construction noise that are relevant to the Project.

Section 41.40, Noise Due to Construction, Excavation Work – When Prohibited, of the City Code states:

> (a) No person shall, between the hours of 9:00 PM and 7:00 AM of the following day, perform any construction or repair work of any kind upon, or any excavating for, any building or structure, where any of the foregoing entails the use of any power driven drill, riveting machine excavator or any other machine, tool, device or equipment which makes loud noises to the disturbance of persons occupying sleeping quarters in any dwelling hotel or apartment or other place of residence. In addition, the operation, repair or servicing of construction equipment and the job-site delivering of construction materials in such areas shall be prohibited during the hours herein specified. Any person who knowingly and willfully violates the foregoing provision shall be deemed guilty of a misdemeanor punishable as elsewhere provided in this Code.

Section 112.03, Construction Noise, of the City Code states that noise due to construction or repair work shall be regulated as provided by Section 41.40 of this Code.

Regulatory Requirements

RR NOI-1 The City of Los Angeles Municipal Code exempts construction activities from the City's noise standards provided that construction activities take place between to 7:00 AM and 9:00 PM. However, the Los Angeles County Flood Control District (LACFCD) has voluntarily defined more restrictive construction hours than required by City Code (i.e., maximum eight-hour work day conducted within the hours of 9:00 AM to 5:30 PM, Monday through Friday).

Impact Discussion

a) Would the project result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Less than Significant Impact. Implementation of the Project would result in noise and vibration related to on-site construction equipment and haul truck traffic. The sensitive receptors considered in the following analysis are the same as described in Section 3.3, Air Quality, of this Recirculated IS/MND. The existing noise levels in the Project vicinity and the anticipated construction noise and vibration levels are discussed below.

Existing Noise Conditions

Noise measurements were taken in the vicinity of the Project site to determine the existing noise conditions. The noise monitoring locations were selected to provide a representative sampling of the noise levels created by nearby noise sources as well as experienced by nearby sensitive receptors. The field survey noted that noise in the Project area is generally characterized by vehicular traffic on Devonshire Street, Arleta Avenue, and I-5 as well as aircraft noise. Table 3-14, Existing Noise Conditions, summarizes the results of the noise monitoring and Exhibit 3-6, Noise Monitoring Locations, depicts the locations of the four noise-monitoring sites. As shown, existing average noise levels (L_{eq}) ranged from 49.6 to 67.3 dBA, with the highest noise measurements at Site 4 located near the intersection of Telfair Avenue and Sheldon Street.

Project Boundary

4 Noise Measurement Location

Source: Vista Environmental 2015

Noise Monitoring Locations

Exhibit 3-6

Pacoima Spreading Grounds Improvement Project

N W E S

1 0.5 0 1 Miles

BonTerra PSOMAS

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TABLE 3-14
EXISTING NOISE CONDITIONS

Site	Site Description	Primary Noise Source	Start Time (PM)	Noise Levels	
				dBA L_{eq}	dBA L_{max}
1	Located next to the southwest corner of the intake structure	Traffic on I-5 and aircraft	12:19	56.9	69.5
2	Located west of the spreading grounds on the south side of Devonwood Park and approximately 150 feet east of the Woodman Ave centerline	Traffic on Woodman Ave, children at the park, and aircraft	12:42	54.4	69.5
3	Located east of the spreading grounds and on the southeast side of Fillmore St, and approximately 125 feet southwest of the end of Fillmore St	Traffic on Devonshire St and aircraft	1:16	49.6	62.3
4	Located at the parking lot on the north corner of Sun Valley High School and approximately 50 feet southeast of the Sheldon St centerline and 100 feet southwest of the Telfair Ave centerline	Sheldon Street, Telfair Avenue, and children at high school	1:50	67.3	82.0

dBA: A-weighted decibels; L_{eq}: average sound level; L_{max}: maximum noise level; I: Interstate

Source: Vista 2017b (Appendix E)

On-Site Construction Equipment Noise

Section 41.40(a) of the City of Los Angeles Municipal Code exempts construction activities from the City's noise standards provided that construction activities do not take place between the hours of 9:00 PM and 7:00 AM (RR NOI-1). Implementation of the Project would involve a maximum eight-hour work day between the hours of 9:00 AM and 5:30 PM, Monday through Friday, which is consistent with and more restrictive than the City requirement. Through adherence to the limitation of allowable construction times provided in Section 41.40(a), construction-related noise would not exceed the applicable standards, in this case limited to the construction hours limitation of the City of Los Angeles Municipal Code.

The City's construction noise standards do not provide any limits to the noise levels that may be created from construction activities. Even with adherence to the City standards, the resultant construction noise levels may lead to in a substantial temporary noise increase to the nearby off-site receptors. This is addressed under Threshold 3.12(d) below.

Off-Site Vehicular Noise

The Project would require the removal of 1.37 million cy of sediment from the Project site that would generate up to 478 trips with 14-cy capacity haul trucks or 372 trips with 18-cy capacity haul trucks, and an estimated 18 daily trips from workers commuting to the Project site. Vehicle noise is a combination of the noise produced by the engine, exhaust, and tires. The level of traffic noise depends on three primary factors: (1) the volume of traffic, (2) the speed of traffic, and (3) the number of trucks in the flow of traffic. The Project would alter both the volume of traffic and number of trucks on each road segment; however, no changes in vehicle speed are anticipated from implementation of the Project.

The California Department of Health has developed the noise compatibility matrix that details normally acceptable noise levels for different land uses that include 60 dB on the Community Noise Equivalent Level (CNEL) for single-family homes; 65 dB CNEL for motels; and 70 dB CNEL

for schools, hospitals, churches, and parks. Neither the California Department of Health nor local jurisdictions provide direction for considering impacts on sensitive receptors at locations that already exceed the normally acceptable noise levels for the "Without Project" condition; however, the FTA, which assesses noise and vibration impacts from transit projects, found that when the ambient noise is between 60 and 64 dB CNEL, a noise exposure increase of 2 dB is allowed before a significant impact would occur. When the ambient noise is between 65 and 74 dB CNEL, a noise exposure increase of 1 dB is allowed before a significant impact would occur; when the ambient noise exceeds 74 dB CNEL, any increase in noise exposure would create a significant impact (Vista 2017b).

The existing roadway noise environment was modeled using the FHWA Traffic Noise Prediction Model—FHWA-RD-77-108 (FHWA Model). The FHWA Model arrives at a predicted noise level through a series of adjustments to the Reference Energy Mean Emission Level (REMEL) to account for the roadway active width (i.e., the distance between the center of the outermost travel lanes on each side of the roadway); the total average daily traffic (ADT) and the percentage of ADT that flows during the day, evening, and night; the travel speed; the vehicle mix on the roadway, which is a percentage of the volume of automobiles, medium trucks, and heavy trucks; the roadway grade; the angle of view of the observer exposed to the roadway; and site conditions ("hard" or "soft" relates to the absorption of the ground, pavement, or landscaping). Only the roadway segments on which the Project may generate additional vehicular trips and had sensitive land uses (i.e., residential, school, parks, libraries, and hospitals) were analyzed. The roadway classifications are based on the City General Plan's Circulation Element. The roadway speeds are based on the posted speed limits. The distance to the nearest sensitive receptor was determined by measuring the distance from the roadway centerline to the nearest residence, school, park, or hospital. Soft site conditions were used to develop noise contours and to analyze noise impacts, and are representative of the analyzed roadways where there is landscaping in front of the potentially impacted homes. Soft sites have an absorptive ground surface (e.g., soft dirt, grass, or scattered bushes and trees). The ADT volumes on the study area roadways were obtained from the Revised TIS prepared for the Project. Since the Revised TIS provided peak hour and mid-day volumes, the ADT was conservatively calculated by multiplying the sum of all measured hours (6 hours total) by 4 for a sum of 24 hours. The Project-only passenger car equivalent (PCE) trips provided in the Revised TIS were converted back to non-PCE volumes by dividing the Project trips by 2.5.

The Revised Noise Report analyzed Alternatives 1 through 4 conditions consistent with the alternatives assessed in the Revised TIS prepared for the Project. The potential off-site noise impacts have been assessed by calculating the noise level (in CNEL) at the nearest receptor for the Existing scenario to each of the Existing Plus Alternative scenarios; determining the incremental contribution of the Project's truck traffic to the ambient noise level; and comparing this to the appropriate FTA threshold, which varies dependent on the existing noise level.

For Alternative 1, the incremental Project contribution ranged from 0.3 to 1.0 dBA CNEL for all segments analyzed; for Alternative 2, the incremental Project contribution ranged from 0.3 to 1.1 dBA CNEL; for Alternative 3, the incremental Project contribution ranged from 0.2 to 0.9 dBA CNEL; and for Alternative 4, the incremental Project contribution ranged from 0.3 to 1.0 dBA CNEL. For all routes and all segments analyzed, the Project's noise generation related to truck traffic would not exceed the applicable threshold (i.e., 1.0 dB or more because the ambient noise level is between 65 and 74 dB CNEL at noise monitoring locations 1, 2, and 3 near the Project site). Also, the Project would not cause the noise level at any nearby land use to exceed the normally compatible noise standard that did not already exceed the standards for the "Without Project" condition. There would be a less than significant impact related to off-site vehicular noise resulting in an exceedance of standards, and no mitigation is required. Operational noise is addressed under Threshold 3.12(d) below.

b) Would the project result in exposure of persons to or generate excessive groundborne vibration or groundborne noise levels?

Less than Significant Impact. As neither the City of Los Angeles General Plan or Municipal Code provide any vibration standards for construction activities, Caltrans guidance has been utilized, which defines the threshold of perception from transient sources at 0.25 inch per second ppv. The primary source of vibration during construction activities would be from the operation of bulldozers (to be used at the spreading grounds and the intake canal) and from hoe rams (to be used at the intake canal only). Both large bulldozers and hoe rams would create a vibration level of 0.089 inch per second ppv at 25 feet. Based on typical propagation rates, the vibration level at the nearest off-site receptor, located as near as 35 feet, would be 0.061 inch per second ppv. The vibration level at the nearest vibration-sensitive off-site receptor would be well below the 0.25 inch per second ppv threshold. The operation of bulldozers and hoe-rams are the focus of the analysis as they would generate the greatest levels of vibration among the construction activities, including the haul truck traffic. As such, haul truck traffic would also result in less than significant vibration levels. Therefore, a less than significant vibration impact would occur and no mitigation is required.

The continued operation of the Pacoima Spreading Grounds would not include the operation of any new vibration sources. There would be no impact related to vibration and no mitigation is required.

c) Would the project result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

No Impact. A permanent increase in ambient noise levels refers to long-term operation of a project. However, implementation of the Project would not result in additional site visits from County staff or other changes in long-term operations. Therefore, the continued operation of the Pacoima Spreading Grounds after Project implementation would result in no change in noise generation related to the facility. There would be no impact and no mitigation is required.

d) Would the project result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Less than Significant with Mitigation. Implementation of the Project would result in noise and vibration related to on-site construction equipment and haul truck traffic. The construction parameters and sensitive receptors considered in the following analysis are the same as identified in Section 3.3, Air Quality. As discussed above, implementation of the Project would comply and be more restrictive than the City construction hours limits; however, the City does not specify quantitative noise levels as standards for construction activities. The following analysis addresses whether the Project's implementation would result in a substantial ambient noise level increase based on the FTA construction noise criteria thresholds, summarized in Table 3-15.

TABLE 3-15
FTA CONSTRUCTION NOISE CRITERIA

Land Use (Receptor)	Daytime (dBA L_{eq})		Nighttime (dBA L_{eq})	
	1-Hour	8-Hour	1-Hour	8-Hour
Residential	90	80	80	70
Commercial	100	85	100	85
Industrial	100	90	100	90

dBA: A-weighted decibels; L_{eq}: average sound level
Source: Vista 2017b (Appendix E)

Noise generated by construction activities would be a function of the noise generated by construction equipment, equipment location, sensitivity of nearby land uses, and the timing and duration of the construction activities. The noise generated by on-site construction activities has been analyzed through use of the FHWA's Roadway Construction Noise Model (RCNM). Although the Project does not comprise roadway construction, the FHWA compiled noise measurement data regarding the noise-generating characteristics of several different types of construction equipment used during the Central Artery/Tunnel project in Boston and, as such, the model is applicable to all construction types. The nearest piece of equipment was modeled at the shortest distance of the proposed construction activity on the site to the nearest home, and each subsequent piece of equipment was modeled an additional 50 feet away in order to calculate the combined noise impacts of the simultaneous operation of all listed equipment with the potential to operate during construction activities. It is noted that the noise model incorporates several additional conservative assumptions, including (1) hard terrain on the site, whereas the site is comprised of primarily soft terrain (i.e., dirt), which provides relatively lower noise levels; (2) direct line of sight between the noise source and receptor (i.e., no barriers); and (3) stationary operation of each piece of equipment for a period of one hour, with the nearest equipment being a dozer. In reality, the on-site construction activity would not be stationary for an hour. Also, the majority of the spreading basin excavation and channel replacement would occur at a further distance than the nearest point on the site and be below the grade of the surrounding receptors (e.g., at a lower level), thereby providing noise reduction compared to the noise modeling.

Construction activities at the spreading basins would consist of the use of bulldozers and excavators that would be constantly moving and would result in activities occurring near nearby sensitive receptor in less than one hour intervals; therefore, the one-hour construction noise threshold was utilized for the receptors next to the spreading basins (i.e., residential 90 dBA L_{eq} for 1 hour during the daytime). The demolition activities at the headworks would require the use of excavators with mounted impact hammers or hoe rams to break up the existing concrete, and this demolition activity would have the potential of occurring in the same general proximity for up to an eight-hour duration; therefore, the eight-hour construction noise threshold was utilized for the receptors next to the headworks (i.e., residential 80 dBA L_{eq} for eight hours during the daytime). It is noted that, for purposes of this analysis, the adjacent park (Devonwood) was assessed with the residential FTA threshold as well. The modeled worst-case (i.e., maximum) noise levels and a comparison to the relevant threshold are summarized in Table 3-16, Maximum Construction Noise Levels.

TABLE 3-16
MAXIMUM CONSTRUCTION NOISE LEVELS

Sensitive Receptor	Distance from Project site to Receptor (feet)	Exterior Construction Noise Level at Receptor (dBA L_{eq})	Threshold (dBA L_{eq})	Exceed Threshold?
Devonwood Park	30	83	90[a]	No
Nearest home and the church adjacent to the spreading basins	35	82	90[a]	No
Nearest home to the headworks	40	86	80[b]	**Yes**

dBA: A-weighted decibels; L_{eq}: average sound level

[a] One-hour threshold based on construction activities in the spreading basins.
[a] Eight-hour threshold based on construction activities in headworks.

Source: Vista 2017b (Appendix E)

As shown, the highest noise levels and the noise generation that would exceed the appropriate FTA threshold would be expected during demolition activities at the homes near the headworks facility. This is a significant impact and requires mitigation.

A one-hour noise level refers to a steady state, or constant, equivalent noise level for that period of time. The inherent nature of the proposed activities in the spreading basins result in the construction equipment moving around, as well as stopping and starting, within a localized area (e.g., part of one basin) for a period of time, and then another, and eventually moving over the entirety of the spreading grounds, which are quite large. Therefore, the volume of noise from construction activities would be highly variable over each hour and each day at each receptor. As such, the eight-hour noise level is the appropriate noise standard for activity in this area.

Whereas in the headworks area, construction activity would be defined to only the existing channel area and all noise generation would emanate from within a narrow geographic area. Hence the more restrictive one-hour noise standard is appropriate for this area. Also, it is noted that while it is true that A-weighted noise levels are measured on a logarithmic scale, a noise level of 82 dBA L_{eq} is not twice the applied threshold. Specifically, a doubling of a noise level of 80 dBA is 100 dBA; the 20 dBA difference represents an increase in sound energy (which creates the noise) of 100 times (i.e., 10 times 10). It is also noted that the modeled noise levels generally overestimate the actual noise levels that would be experienced, and represent the highest noise level at the closest point to a receptor based on the expected construction scenario. As such, all noise levels further from a receptor would be less than the estimated noise level. Noise attenuates (lessens) at a rate of approximately 6 dBA per doubling of distance over a hard surface; the noise attenuation rate is greater over a soft surface such as soils.

MM NOI-1 specifies the installation of an 8-foot-high sound wall constructed of minimum ½-inch plywood or Oriented Strand Board (OSB) and extending a minimum of 100 feet past the extent of the demolition activities. The sound wall will be installed prior to initiation of demolition activities and will remain until completion of all headworks improvements.

The 8-foot height of the sound wall is specified because that is the height needed to break the line-of-sight between the construction equipment and a person standing in the backyard of a nearby home. According to Caltrans' *Technical Noise Supplement*, a sound wall that is tall enough to break the line-of-sight between the proposed equipment and receiver would provide approximately 7 dB of noise reduction. This would result in a maximum noise level of 79 dBA L_{eq} at the homes nearest to the headworks during demolition activity and would be within the eight-hour, 80-dBA L_{eq} standard. It is noted that most of the demolition work would occur with the equipment located inside the intake canal, located as much as 20 feet below the grade of the

surrounding receptors. The additional grade difference would provide further sound attenuation beyond the maximum noise level of 79 dBA L_{eq}, which is the at-grade estimated noise level with mitigation. Therefore, with implementation of MM NOI-1, a less than significant construction noise impact would occur from Project implementation. Operational noise is addressed under Threshold 3.12(d) above.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

Less than Significant Impact. The nearest airport is Whiteman Airport, located approximately 1.5 mile east of the Project site. The site is located outside the 65 dBA CNEL noise contours of this or any other airport. Additionally, observation of the existing noise sources in the area during the noise measurements determined that air traffic creates minimal noise in the Project vicinity. Finally, the Project would not introduce any new sensitive receptors to the site or surrounding area. Impacts would be less than significant due to construction and operation of the Project and no mitigation is required.

MITIGATION MEASURES

MM NOI-1 The Los Angeles County Flood Control District shall construct, or have constructed as part of the Contractor specifications, an 8-foot-high temporary sound wall along the shared property line with the nearby homes located northwest of the headworks improvements area. The sound wall shall extend at least 100 feet past the extent of the intake channel demolition activities (i.e., deconstruction of the concrete channel and other existing infrastructure) and shall be constructed of minimum ½-inch plywood or Oriented Strand Board (OSB). The sound wall shall be installed prior to the start of demolition activities and shall remain until the completion of the headworks improvements.

3.13 POPULATION AND HOUSING	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant Impact	No Impact
Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through the extension of roads or other infrastructure)?	☐	☐	☐	☒
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

IMPACT ANALYSIS

Regulatory Requirements

None required.

Impact Discussion

a) Would the project induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through the extension of roads or other infrastructure)?

No Impact. The Project site does not include residential land uses, nor would the Project include habitable structures or other land uses that could directly induce population growth. Also, the Project does not involve the extension of new infrastructure that could serve future populations. The Pacoima Spreading Grounds has operated since the 1930s, and the indirect population growth associated with containment of the Los Angeles River floodplain through channelization of the river upstream and downstream of the Project site has already occurred. The Project would increase the recharge capacity of the facility and contribute to increased water supply resiliency for the Los Angeles region; however, the water conservation achieved with the Project is intended to serve the anticipated water demands of the LADWP. The increase in population and, therefore, increase in water demands would be expected to occur with or without Project implementation. Further, the Project would reduce the existing dependence on imported water to serve the anticipated water demands.

The Project would bring in County staff, contractors, and other authorized personnel to the Project site for the duration of the construction period. The local population (i.e., in Los Angeles County) could provide adequate skilled workers to satisfy the construction-related positions, and there would be no need to relocate workers from other areas. Thus, no indirect change in the population and housing is expected with the presence of construction crews on site. Operation of the Project would not impact population, because there would be no long-term changes to the regular inspection and maintenance operations that have occurred historically.

b) Would the project displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

c) Would the project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

No Impact. The Project site does not include residential homes or land uses. Therefore, the Project would not displace housing or an existing population on the site. There would be no impact due to construction or operation of the Project and no mitigation is required.

MITIGATION MEASURES

There would be no impacts related to population and housing; therefore, no mitigation measures are necessary.

3.14 PUBLIC SERVICES	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant Impact	No Impact
Would the project:				
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
Fire protection?	☐	☐	☐	☒
Police protection?	☐	☐	☐	☒
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other public facilities?	☐	☐	☐	☒

IMPACT ANALYSIS

Regulatory Requirements

None required.

Impact Discussion

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:

- **Fire protection?**

No Impact. As discussed above in Section 3.13, Population and Housing, the Project would not involve the construction or operation of structures or infrastructure improvements that could directly or indirectly induce population growth that would generate demand for additional fire protection services. Implementation of the Project would not involve construction of facilities that would generate greater fire risk than the existing condition. Construction or operation of the Project would not generate demand for fire protection services such that new or expanded physical facilities are required whose construction could result in an environmental impact. There would be no impact.

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, need for new or physically altered government facilities, the construction of which could cause

significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:

- **Police protection?**

No Impact. As discussed above in Section 3.13, Population and Housing, the Project would not involve the construction or operation of structures or infrastructure improvements that could directly or indirectly induce population growth that would generate demand for additional police protection services. Temporary Project-related activities, such as the presence of construction equipment on the Project site, may provide increased opportunities for theft. The construction areas would be fenced, and the LACFCD's Contractor would be required to secure building materials and construction equipment to prevent theft and vandalism from occurring at the Project site during construction activities as a part of standard operating procedures. Additionally, no unusually valuable or out of the ordinary construction-related equipment or materials would be associated with Project implementation that would generate an unusual attraction for theft. Finally, construction of the Project would result in a greater level of activity and worker presence on the site than ordinary operations of the Pacoima Spreading Grounds, which are generally unstaffed. As such, implementation of the Project would not be expected to lead to increased trespassing or dumping, and these are not existing issues. There would be no new demands for police protection services that could result in new or physically altered police facilities.

Construction or operation of the Project would not generate demand for police protection services such that new or expanded physical facilities are required whose construction could result in an environmental impact. There would be no impact.

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:

- **Schools?**

No Impact. As discussed above in Section 3.13, Population and Housing, the Project would not involve the construction or operation of structures or infrastructure improvements that could directly or indirectly induce population growth that would generate demand for additional school services. Therefore, construction or operation the Project would not generate demand for schools such that new or expanded physical facilities are required whose construction could result in an environmental impact. There would be no impact.

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:

- **Parks?**

No Impact. As discussed above in Section 3.13, Population and Housing, the Project would not involve the construction or operation of structures or infrastructure improvements that could directly or indirectly induce population growth that would generate demand for additional parks or recreation features. Construction workers would be limited, on average, to 18 workers per day. This level of temporary, introduced population that may occasionally use local park facilities would

not result in deterioration of the facilities or otherwise notably increase demand. Therefore, construction or operation of the Project would not generate demand for parks such that new or expanded physical facilities are required whose construction could result in an environmental impact. There would be no impact.

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:

- **Other public facilities?**

No Impact. As discussed above in Section 3.13, Population and Housing, the Project would not involve the construction or operation of structures or infrastructure improvements that could directly or indirectly induce population growth that would generate demand for additional public facilities not addressed above, such as libraries. Construction workers would be limited, on average, to 18 workers per day. This level of temporary, introduced population that may occasionally use local libraries or other public facilities would not result in deterioration of the facilities or otherwise notably increase demand. Therefore, construction or operation of the Project would not generate demand for other public facilities such that new or expanded physical facilities are required whose construction could result in an environmental impact. There would be no impact.

MITIGATION MEASURES

There would be no impacts related to public services; therefore no mitigation measures are required.

3.15 RECREATION	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant Impact	No Impact
Would/does the project:				
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

IMPACT ANALYSIS

Regulatory Requirements

None required.

Impact Discussion

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

No Impact. As discussed above in Section 3.13, Population and Housing, the Project would not involve the construction or operation of structures or infrastructure improvements that could directly or indirectly induce population growth, including during construction activities, that would generate demand for additional recreational facilities. The Project would not increase the use of existing park or recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated. The East San Fernando Valley Nature Parkway, Devonwood Park, and Devonshire Arleta Park would not be closed during implementation of the Project.

As part of the Project, the paved access road located along the west side of Pacoima Wash and outside the fence surrounding the Pacoima Spreading Grounds, between Devonshire Street and Filmore Street, would be opened to the public for use as a hiking and riding trail. This is the sole recreation feature that would be constructed by the Project. The headworks area has the potential to become a public recreation area once the open channel is placed underground. However, as discussed in Section 2.4.1 of this Recirculated IS/MND, this feature is not included as part of the Project. The Project site would continue to operate as a water conservation facility following Project implementation.

There would be no impact related to use of existing recreation facilities or construction of recreational facilities (i.e., the trail) due to construction or operation of the Project and no mitigation would be required.

MITIGATION MEASURES

There would be no impacts related to recreation; therefore, no mitigation measures are required.

3.16 TRANSPORTATION/TRAFFIC	Potentially Significant Impact	Less Than Significant with Mitigation	Less than Significant Impact	No Impact
Would the project:				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system. Including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☒	☐	☐
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand established by the county congestion management agency for designated roads or highways?	☐	☐	☐	☒
c) Result in a change in air traffic patterns, including either an increase in traffic levels or change in location that results in substantial safety risks?	☐	☐	☐	☒
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
e) Result in inadequate emergency access?	☐	☒	☐	☐
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☐	☒

Information in this section is derived from the *Revised Traffic Impact Study, Pacoima Spreading Grounds Improvement Project, County of Los Angeles, California* (Revised TIS) dated July 2017 and prepared by Linscott, Law & Greenspan Engineers (LLG 2017). This report is provided in its entirety in Appendix F.

IMPACT ANALYSIS

Methods

Based on consultation with the LADOT regarding the Project, analysis of construction-related traffic is not required. However, due to the length of the construction period and the number of daily haul truck trips, the LACFCD directed preparation of the Revised TIS based on LADOT's traffic study guidelines and to also include non-signalized intersections. The LADOT guidelines are meant to reflect land use development, with changes in land use and permanent traffic generation. The Revised TIS is also consistent with the Los Angeles County Congestion Management Program traffic impact assessment guidelines. As such, analyzing the construction-related haul truck traffic as a permanent land use development is a conservative approach and is intended to ensure all potential traffic impacts are identified.

As discussed in Section 2.4.1, Project Components, 2,800 tpd of excavated sediment would be transported to one of the following Vulcan-owned sediment disposal sites: Cal-Mat Pit, Boulevard

Pit, and Sheldon Pit; and 2,200 tpd of excavated sediment would be transported to Sunshine Canyon Landfill. The haul trucks would travel to the Vulcan pits with a generalized distribution of 60 percent via I-5 (Modified Haul Route A) and 40 percent via San Fernando Road (Haul Route B). Haul Route C travels to and from Sunshine Canyon Landfill. Portions of Modified Haul Route A and Haul Route B overlap in two places: near the Project site and near the Vulcan pits. Wherever feasible, concurrent use of the three Vulcan pits would be scheduled to distribute the haul trucks; however, at times this may not be possible. Therefore, to provide an analysis of various sediment disposal possibilities as they relate to haul truck traffic, the Revised TIS assessed impacts for the following four scenarios for the distribution of sediment to the disposal sites:

- Alternative 1: Concurrent Use of All Vulcan Pits and Sunshine Canyon Landfill
- Alternative 2: Use of the Boulevard Pit and Sunshine Canyon Landfill
- Alternative 3: Use of the Sheldon Pit and Sunshine Canyon Landfill
- Alternative 4: Use of the Cal-Mat Pit and Sunshine Canyon Landfill

Further details of the Revised TIS methodology is presented below in the impact analysis. These alternatives for the distribution of sediment to the disposal sites, as well as the Modified Haul Route A and Haul Route B, are depicted on Exhibit 2-7, Alternative 1: Concurrent Use of All Vulcan Pits; Exhibit 2-8, Alternative 2: Use of Boulevard Pit; Exhibit 2-9; Alternative 3: Use of Sheldon Pit; and Exhibit 2-10, Alternative 4: Use of Cal-Mat Pit. Exhibit 2-11, Sunshine Canyon Landfill Haul Route, depicts the alignment of Haul Route C, in Section 2.0, Environmental Setting and Project Description.

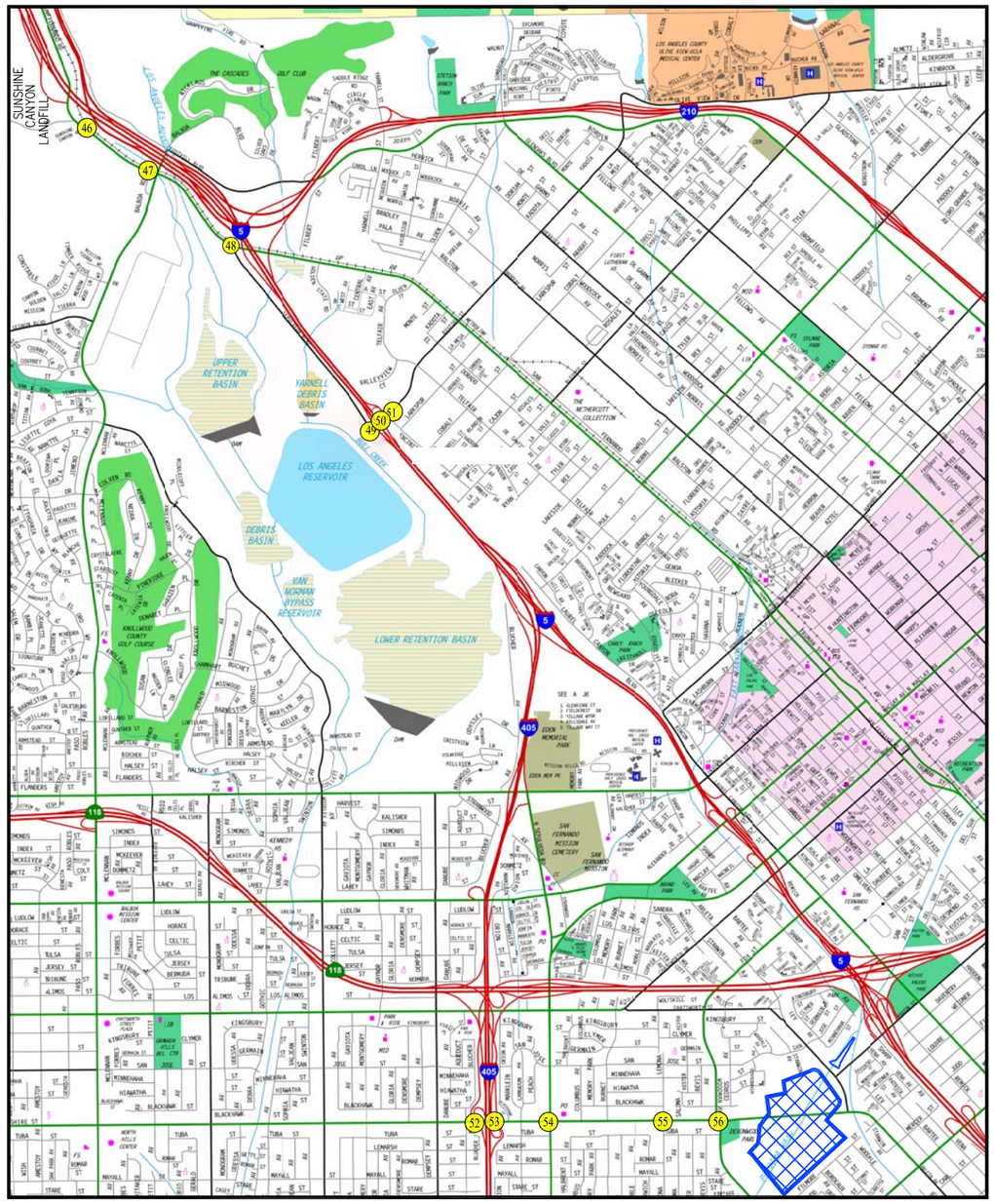
Traffic Study Area

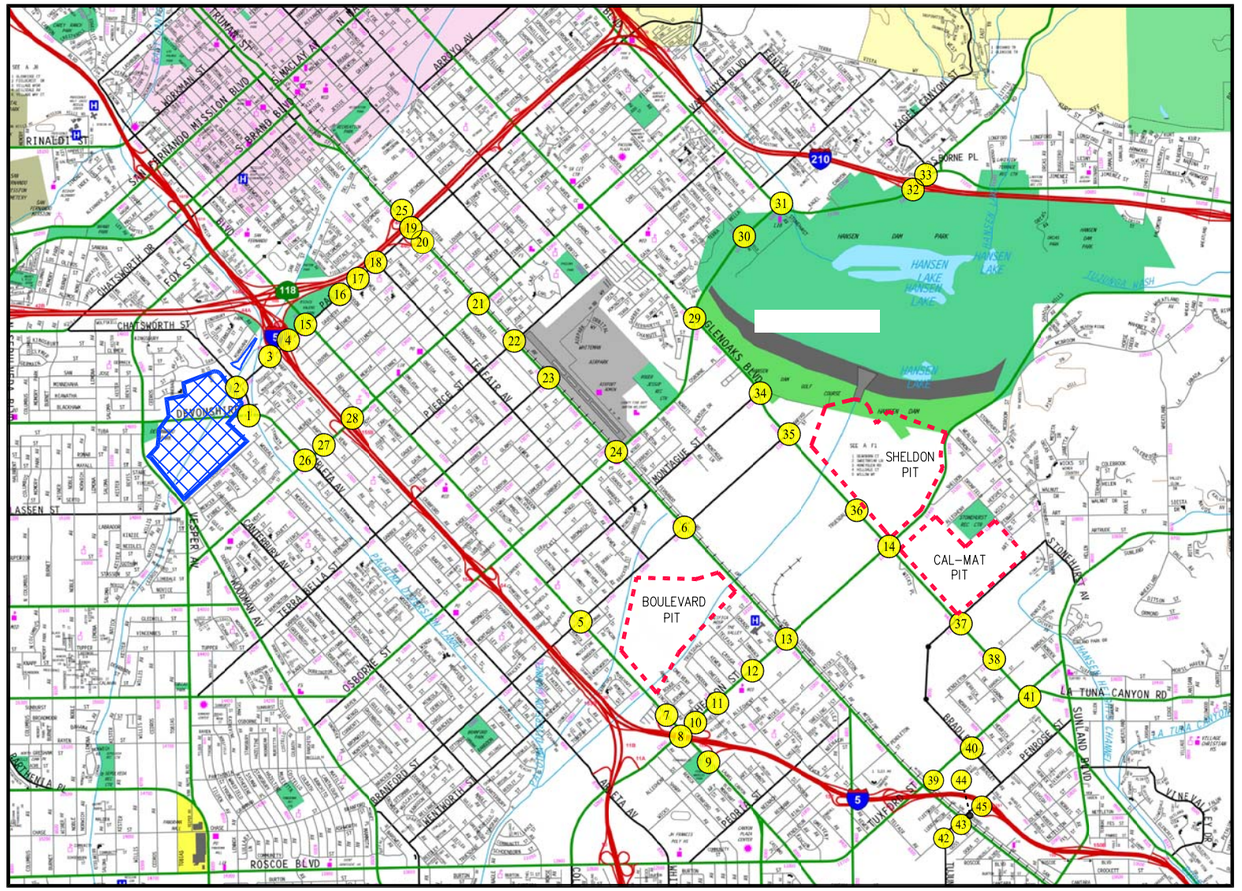
The Revised TIS "study area" is comprised of those locations that have the greatest potential to experience traffic impacts as a result of the Project. Based on traffic engineering practice and consultation with the LACFCD, the LACDPW's Traffic and Lighting Division, and LADOT, a total of 56 study intersections and 6 mainline freeway segments have been identified. All intersections are in the City of Los Angeles, and the I-5 freeway ramp intersections share jurisdiction with Caltrans. The 56 study intersections are depicted on Exhibit 3-7, Traffic Study Intersections, and are listed in the intersection capacity analysis tables beginning on page 3-92 below.

Of the 56 study intersections, 42 are currently controlled by traffic signals and 14 are currently controlled by stop signs. The following mainline freeway segment locations under Caltrans jurisdiction were also identified for analysis:

1. I-5 Freeway south of Roxford Street
2. I-5 Freeway north of Osborne Street
3. I-5 Freeway south of Laurel Canyon Boulevard
4. SR-118 Freeway east of San Fernando Road
5. I-210 Freeway west of Foothill Boulevard
6. I-405 Freeway north of SR-118 Freeway.

Manual vehicle classification counts of turning movements (i.e., traffic counts) were conducted at each of the 56 study intersections during the weekday morning (7:00 AM to 10:00 AM), mid-day (12:00 PM to 2:00 PM), and afternoon (3:00 PM to 6:00 PM) commuter periods to determine the peak-hour traffic volumes. The traffic counts were conducted at 14 study intersections in 2014, 10 study intersections in 2015, and 32 study intersections in 2016. The counts were timed to ensure schools were in session. All traffic counts have been increased by 1.5 percent annually to reflect assumed ambient growth for 2017 existing conditions.





EXISTING PACOIMA SPREADING GROUNDS

XX STUDY INTERSECTION

Source: Linscott, Law & Greenspan, Engineers 2017

Traffic Study Intersections

Exhibit 3-7

Pacoima Spreading Grounds Improvement Project

N W E S

BonTerra PSOMAS

(07/25/2017 MMD) H:\Projects\CoLADPW (DPW)\J272\Graphics\MND\ex3-7_TrafficStudy_Intersections_20170714.pdf

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The traffic counts categorized the following vehicle types: passenger cars, buses, single unit trucks, and semi-tractor trailer trucks. The traffic volumes shown in the figures and used for analysis purposes reflect appropriate adjustments, called the passenger car equivalent (PCE), to account for the presence of truck traffic that travels in the study area, as discussed further below.

During the Initial Study review process in 2014, the potential traffic impacts at the intersections of Telfair Avenue/Paxton Street, San Fernando Road/Paxton Street, and San Fernando Road/Van Nuys Boulevard along then-proposed Haul Route B and the Woodman Avenue/Devonshire Street intersection were requested. Because haul trucks associated with the Project are not expected to traverse through the Woodman Avenue/Devonshire Street intersection, analysis of the Woodman Avenue/Devonshire Street intersection is not considered necessary. The remaining three requested intersections are among the ten additional intersections included in the 2015 traffic counts for the Revised TIS and have been evaluated pursuant to LADOT traffic analysis methodologies. Based on application of the LADOT traffic impact criteria, the results of the analysis of these intersections is presented below.

Development of the proposed Project's implementation strategy involved a detailed traffic sensitivity analysis, whereby intersection analyses were prepared to determine those intersections with the worst existing Level of Service (LOS) to define the distribution of trucks on the haul routes and within each peak hour (AM, mid-day, and PM) to reduce or avoid a significant traffic impact. To more clearly illustrate the evolution of the construction strategy, the Revised TIS first includes an analysis without the transportation demand management (TDM) measures that were identified to avoid impacts and then with the TDM measures. These TDM measures are included in this IS/MND as mitigation.

Regulatory Requirements

RR TRA-1 The County of Los Angeles Department of Public Works requires the implementation of temporary traffic control measures in accordance with the *Standard Specifications for Public Works Construction* (Greenbook), which contains standards for traffic and access (i.e., maintenance of access, traffic control, and notification of emergency personnel). For construction activity within the street right-of-way, a traffic control plan would be prepared in accordance with the *Work Area Traffic Control Handbook* (WATCH Manual) and subject to approval prior to initiation of the right-of-way activities by the City of Los Angeles Department of Transportation.

Impact Discussion

a) Would the project conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

Less than Significant with Mitigation. The following analyzes potential impacts to the study intersections. Impacts related to non-motorized travel (i.e., mass transit) are discussed below under Threshold 3.16(f).

Impact Criteria and Thresholds

The 56 study intersections are under either sole City jurisdiction or joint City/Caltrans jurisdiction. As such, the study intersections were evaluated using the Critical Movement Analysis (CMA) method of analysis that determines Volume-to-Capacity (V/C) ratios on a critical lane basis. The overall intersection V/C ratio is subsequently assigned a LOS value to describe intersection operations. Level of Service varies from LOS A (free flow) to LOS F (jammed condition). The relative impact of the added traffic volumes to be generated by the Project during the weekday AM peak hour, mid-day, and PM peak hour was evaluated based on analysis of existing (2017) and future (2020) operating conditions at study intersections both Without and With the Project. The capacity analysis procedures were utilized to evaluate the existing and future V/C relationships and service level characteristics at each study intersection.

The significance of the potential impacts of Project-generated traffic at each study intersection was identified in the LADOT guidelines. A significant transportation impact is determined based on the LADOT's Sliding Scale Method criteria, presented in Table 3-17, City of Los Angeles Department of Transportation Intersection Impact Criteria.

TABLE 3-17
CITY OF LOS ANGELES DEPARTMENT OF TRANSPORTATION
INTERSECTION IMPACT CRITERIA

Final V/C	Level of Service	Project-Related Increase in V/C
> 0.701–0.800	C	equal to or greater than 0.040
> 0.801–0.900	D	equal to or greater than 0.020
> 0.901–1.000	E	equal to or greater than 0.010
Greater than 1.000	F	equal to or greater than 0.010
V/C: volume to capacity ratio Source: LLG 2017. (Appendix F)		

The LADOT's Sliding Scale Method requires mitigation of Project traffic impacts whenever traffic generated by a project causes an increase in the analyzed intersection V/C ratio by an amount equal to or greater than the values shown in Table 3-17 above.

Project Trip Generation

Traffic generation is expressed in vehicle trip ends, defined as one-way vehicular movements, either entering or exiting the generating land use. The Institute of Transportation Engineers' *Trip Generation Manual* does not contain trip rates for the proposed, construction-related hauling operation. Therefore, the truck trip generation forecast was derived based on the following factors: (1) hours of hauling operations, (2) capacity of haul trucks (14 cy or 18 cy per truck); (3) application of PCE factors, and (4) amount of anticipated soil export. To account for the effect that trucks have on overall intersection operations, a PCE factor of 2.5 or 3.0 was incorporated into the traffic analysis. Specifically, it is assumed that a single 14-cy capacity haul truck has the same overall effect on traffic operations as 2.5 passenger cars and a single 18-cy capacity haul truck has the same overall effect on traffic operations as 3.0 passenger cars. This assumption is conservative and accounts for the heavy vehicle type and slower speeds of these vehicles when fully loaded. Additionally, based on coordination with the LACFCD, the trips associated with employee and construction worker trips were estimated.

In order to determine trip generation, the first step was determining the hourly outbound (i.e., loaded) truck trips on each haul route during each traffic analysis time period. Table 3-18, Peak Hourly Outbound Truck Trips Prior to Mitigation, provides a description of the proposed hourly outbound haul truck trips during the weekday AM peak hour, mid-day peak hour, and PM peak hour for 18-cy capacity trucks and 14-cy capacity trucks for each of the haul routes. In reality, a combination of 18- and 14-cy capacity trucks would be utilized in any given hour of the workday, and not just the peak hours.

TABLE 3-18
PEAK HOURLY OUTBOUND TRUCK TRIPS PRIOR TO MITIGATION

Traffic Analysis Time Period [a]	Outbound to Vulcan Materials Pits			Outbound to Sunshine Canyon Landfill
	Modified Haul Route A	Haul Route B	Haul Routes A + B [e]	Haul Route C [f]
Using 18-cy Capacity Trucks				
AM Peak Hour[b]	8	5	**13**	**10**
Mid-day Peak Hour[c]	8	5	**13**	**10**
PM Peak Hour[d]	8	5	**13**	**10**
Using 14-cy Capacity Trucks				
AM Peak Hour[b]	10	7	**17**	**13**
Mid-day Peak Hour[c]	10	7	**17**	**13**
PM Peak Hour[d]	10	7	**17**	**13**

Notes:

[a] Based on coordination with County staff, proposed hauling operations will occur Mondays through Fridays, between 9:00 AM and 5:30 PM (maximum eight-hour days).

[b] Typical weekday morning peak commute period is from 7:00 am to 10:00 am. For project-related traffic generation purposes, the AM Peak Hour reflects the hourly outbound total from 9:00 am to 10:00 am, since the hauling operations are proposed to begin at 9:00 am.

[c] Typical weekday mid-day period is from 10:00 am to 3:00 pm. For project-related traffic generation purposes, the Mid-day Peak Hour reflects the peak hourly outbound total between 10:00 am and approximately 2:30 pm (for approximately four hours during the Mid-day period).

[d] Typical weekday afternoon peak commute period is from 3:00 pm to 6:00 pm. For project-related traffic generation purposes, the PM Peak Hour reflects the peak hourly outbound total between approximately 2:30 pm and 5:30 pm (for approximately three hours during the PM peak period).

[e] Correlates with row [B] in Tables 3-19 and 3-20.

[f] Correlates with row [C] in Tables 3-19 and 3-20.

Source: LLG 2017. Appendix F

As shown in Table 3-18, prior to mitigation, transport of excavated sediment is assumed to occur with an even distribution of trucks across each time period. Specifically, utilizing 18-cy capacity trucks, an average of 8 hourly outbound truck trips via Modified Haul Route A, 5 hourly outbound truck trips via Haul Route B, and 10 hourly outbound truck trips via Haul Route C, for a total of 23 hourly outbound truck trips. Similarly, utilizing 14-cy capacity trucks, an average of 10 hourly outbound truck trips via Modified Haul Route A, 7 hourly outbound truck trips via Haul Route B, and 13 hourly outbound truck trips via Haul Route C, for a total of 30 hourly outbound truck trips.

The total daily (rather than hourly) trip generation is calculated by considering both inbound and outbound trips, employee vehicle trips, and application of passenger car equivalency (PCE) factors. PCE factors are used to account for the effect that a heavy vehicle type and slower speeds when the trucks are loaded have on overall intersection operations. Table 3-19, Daily Trip Generation Using 18-cy Trucks, and Table 3-20, Daily Trip Generation Using 14-cy Trucks, on

the following pages summarize the daily trip generation including 18 employee trips and both PCE-adjusted and unadjusted haul truck trips for both sizes of trucks based on the outbound truck distribution shown in Table 3-17.

As shown in Table 3-19, using solely 18-cy capacity haul trucks, the proposed Project would generate a total of 390 trip ends, including 372 daily truck trip ends (or 186 inbound and 186 outbound, calculated as 372 divided by 2) during a typical weekday plus 18 daily employee trip ends. This includes a total of 208 truck trip ends to the Vulcan pits on Modified Haul Route A and Haul Route B, and 164 trip ends to Sunshine Canyon Landfill on Haul Route C. Applying the PCE factor of 3.0 to the truck trips, this equates to a generation of 1,134 PCE-adjusted daily trip ends, which is the number of trips applied in the analysis of potential traffic impacts.

As presented in Table 3-20, using solely 14-cy capacity haul trucks, the proposed Project would generate a total of 496 trip ends, including 478 daily truck trip ends (or 239 inbound and 239 outbound, calculated as 478 divided by 2) during a typical weekday plus 18 employee trip ends. This includes 268 truck trip ends to the Vulcan pits and 210 trip ends to Sunshine Canyon Landfill. Applying the PCE factor of 2.5 to the truck trips, this equates to a generation of 1,214 PCE-adjusted daily trip ends.

As noted previously, a combination of 14-cy and 18-cy capacity trucks would be used, resulting in between 372 and 478 total daily truck round trips, with generally more trips overall during the midday peak hour than the AM or PM peak hours, plus 18 employee round trips. The analysis of the trip generation shown in Tables 3-19 and 3-20 (i.e., prior to MM TRA-1) is presented in Tables 3-24 through 3-27, in columns 1 through 4.

TABLE 3-19
DAILY TRIP GENERATION USING 18-CY CAPACITY TRUCKS PRIOR TO MITIGATION

Land Use[a]	Daily Trip Ends Volumes[b]	AM Peak Hour Volumes[b]			Mid-Day Peak Hour Volumes[b]			PM Peak Hour Volumes[b]		
		In	Out	Total	In	Out	Total	In	Out	Total
[A] Employees at Pacoima Spreading Grounds	18	2	2	4	2	2	4	2	2	4
[B] Vulcan (Haul Routes A + B): 18-cy Truck Trips (unadjusted)[c]	208	13	13	26	13	13	26	13	13	26
[C] Sunshine Canyon (Haul Route C): 18-cy Truck Trips (unadjusted)[d]	164	10	10	20	10	10	20	10	10	20
[D] Vulcan: PCE Adjusted 18-cy Truck Trips[e]	624	39	39	78	39	39	78	39	39	78
[E] Sunshine Canyon: PCE Adjusted 18-cy Truck Trips[e]	492	30	30	60	30	30	60	30	30	60
Net Increase with 18-CY Trucks ([A]+[B]+[C])	**390**	**25**	**25**	**50**	**25**	**25**	**50**	**25**	**25**	**50**
Net PCE Increase with 18-CY Trucks ([A]+[D]+[E])	**1,134**	**71**	**71**	**142**	**71**	**71**	**142**	**71**	**71**	**142**

[a] Based on coordination with LACFCD representatives and Psomas, the following are assumed:
- Total sediment to be exported = 1,370,000 cubic yards (cy), with 1 cy = 1.5 tons
- Up to 2,800 tons per day (tpd) will be exported to the Vulcan site/s and up to 2,200 tpd will be exported to the Sunshine Canyon Landfill site.
- Hours of Truck Hauling Operations: Mondays to Fridays, 9:00 AM to 5:30 PM (8 hours of hauling per day are assumed)

[b] Trips are one-way traffic movements, entering or leaving.

[c] Daily truck trips to/from the Vulcan site/s were derived based on the following, using 18-cy capacity per haul truck:
- (2,800 tons per day) x (1 cy per 1.5 tons) = 1,867 cy per day / 18 cy per truck = 104 inbound trips + 104 outbound trips = 208 total daily truck trips.
- Peak Hour Truck Trips = 104 trips / 8 hours = 13 one-way truck trips per hour.
- Thus, for analysis purposes 13 inbound truck trips + 13 outbound truck trips = 26 total truck trips per hour have been assumed.

[d] Daily truck trips to/from the Sunshine Canyon Landfill site were derived based on the following, using 18-cy capacity per haul truck:
- (2,200 tons per day) x (1 cy per 1.5 tons) = 1,467 cy per day / 18 cy per truck = 82 inbound trips + 82 outbound trips = 164 total daily truck trips.
- Peak Hour Truck Trips = 82 trips / 8 hours = 10 one-way truck trips per hour.
- Thus, for analysis purposes 10 inbound truck trips + 10 outbound truck trips = 20 total truck trips per hour have been assumed.

[e] A passenger car equivalency (PCE) factor of 3.0 was employed for analysis purposes. This accounts for the assumption that a single 18-cy capacity haul truck has the same overall effect on intersection traffic operations as 3.0 passenger cars.

Source: LLG 2017. (Appendix F)

TABLE 3-20
DAILY TRIP GENERATION USING 14-CY CAPACITY TRUCKS PRIOR TO MITIGATION

Land Use[a]	Daily Trip Ends Volumes[b]	AM Peak Hour Volumes[b]			Mid-Day Peak Hour Volumes[b]			PM Peak Hour Volumes[b]		
		In	Out	Total	In	Out	Total	In	Out	Total
[A] Employees at Pacoima Spreading Grounds	18	2	2	4	2	2	4	2	2	4
[B] Vulcan (Haul Routes A + B): 14-cy Truck Trips (unadjusted)[c]	268	17	17	34	17	17	34	17	17	34
[C] Sunshine Canyon (Haul Route C): 14-cy Truck Trips (unadjusted)[d]	210	13	13	26	13	13	26	13	13	26
[D] Vulcan: PCE Adjusted 14-cy Truck Trips[e]	670	43	43	86	43	43	86	43	43	86
[E] Sunshine Canyon: PCE Adjusted 18-cy Truck Trips[e]	526	33	33	66	33	33	66	33	33	66
Net Increase with 14-CY Trucks ([A]+[B]+[C])	**496**	**32**	**32**	**64**	**32**	**32**	**64**	**32**	**32**	**64**
Net PCE Increase with 14-CY Trucks ([A]+[D]+[E])	**1,214**	**78**	**78**	**156**	**78**	**78**	**156**	**78**	**78**	**156**

[a] Based on coordination with LACFCD representatives and Psomas, the following are assumed:
- Total sediment to be exported = 1,370,000 cubic yards (cy), with 1 cy = 1.5 tons
- Up to 2,800 tons per day (tpd) will be exported to the Vulcan site/s and up to 2,200 tpd will be exported to the Sunshine Canyon Landfill site.
- Hours of Truck Hauling Operations: Mondays to Fridays, 9:00 AM to 5:30 PM (8 hours of hauling per day are assumed)

[b] Trips are one-way traffic movements, entering or leaving.

[c] Daily truck trips to/from the Vulcan site/s were derived based on the following, using 14-cy capacity per haul truck:
- (2,800 tons per day) x (1 cy per 1.5 tons) = 1,867 cy per day / 14 cy per truck = 134 inbound trips + 134 outbound trips = 268 total daily truck trips.
- Peak Hour Truck Trips = 134 trips / 8 hours = 17 one-way truck trips per hour.
- Thus, for analysis purposes 17 inbound truck trips + 17 outbound truck trips = 34 total truck trips per hour have been assumed.

[d] Daily truck trips to/from the Sunshine Canyon Landfill site were derived based on the following, using 14-cy capacity per haul truck:
- (2,200 tons per day) x (1 cy per 1.5 tons) = 1,467 cy per day / 14 cy per truck = 105 inbound trips + 105 outbound trips = 210 total daily truck trips.
- Peak Hour Truck Trips = 105 trips / 8 hours = 13 one-way truck trips per hour.
- Thus, for analysis purposes 10 inbound truck trips + 10 outbound truck trips = 20 total truck trips per hour have been assumed.

[e] A passenger car equivalency (PCE) factor of 2.5 was employed for analysis purposes. This accounts for the assumption that a single 14-cy capacity haul truck has the same overall effect on intersection traffic operations as 2.5 passenger cars.

Source: LLG 2017. (Appendix F)

As presented further below (refer to Tables 3-24 through 3-27), prior to mitigation the analysis of the trip generation shown in Tables 3-19 and 3-20 would result in significant traffic impacts at several intersections. Therefore, the hourly outbound truck trips and trip distribution for the same number of daily truck trips was redistributed among the AM, mid-day, and PM peak hours to avoid these impacts. For ease of review, this information is presented immediately below. Table 3-21, Peak Hourly Outbound Truck Trips with Mitigation (MM TRA-1), summarizes the adjustment to the distribution of trucks across each time period as required by MM TRA-1.

TABLE 3-21
PEAK HOURLY OUTBOUND TRUCK TRIPS WITH MITIGATION (MM TRA-1)

Traffic Analysis Time Period[a]	Outbound to Vulcan Pits			Outbound to Sunshine Canyon Landfill
	Modified Haul Route A	Haul Route B	Haul Routes A + B[e]	Haul Route C[f]
Using 18-cy Capacity Trucks				
AM Peak Hour[b]	6	3	**9**	**4**
Midday Peak Hour[c]	8	5	**13**	**13**
PM Peak Hour[d]	8	8	**16**	**7**
Using 14-cy Capacity Trucks				
AM Peak Hour[b]	7	4	**11**	**5**
Midday Peak Hour[c]	10	7	**17**	**17**
PM Peak Hour[d]	10	10	**20**	**9**

cy: cubic yards

[a] Based on coordination with the LACFCD, proposed hauling operations will occur Mondays through Fridays, between 9:00 AM and 5:30 PM (maximum eight-hour days).

[b] Typical weekday morning peak commute period is from 7:00 am to 10:00 am. For project-related traffic generation purposes, the AM Peak Hour reflects the hourly outbound total from 9:00 am to 10:00 am, since the hauling operations are proposed to begin at 9:00 am.

[c] Typical weekday mid-day period is from 10:00 am to 3:00 pm. For project-related traffic generation purposes, the Mid-day Peak Hour reflects the peak hourly outbound total between 10:00 am and approximately 2:30 pm (for 4.5 hours during the Midday period).

[d] Typical weekday afternoon peak commute period is from 3:00 pm to 6:00 pm. For project-related traffic generation purposes, the PM Peak Hour reflects the peak hourly outbound total between approximately 2:30 pm and 5:30 pm (for approximately 3 hours during the PM peak period).

[e] Correlates with row [B] in Tables 3-22 and 3-23.

[f] Correlates with row [C] in Tables 3-22 and 3-23.

Source: LLG 2017. (Appendix F).

As shown in Table 3-21, if all 18-cy capacity trucks were used, total hourly outbound trips on all haul routes would range from 13 to 26; and if all 14-cy capacity trucks were used, total hourly outbound trips on all haul routes would range from 16 to 34. In general, transport of sediment was increased in the midday peak hours and decreased in the AM peak hour to avoid significant traffic impacts. The trip generation based on this outbound truck distribution is provided in Table 3-22, Project Trip Generation Using 18-cy Capacity Trucks with Mitigation (MM TRA-1), and Table 3-23, Project Trip Generation Using 14-cy Capacity Trucks with Mitigation (MM TRA-1), on the following pages. These tables summarize the daily trip generation including 18 employee trips and both PCE-adjusted and unadjusted haul truck trips for both sizes of trucks.

The analysis of the trip generation shown in Tables 3-22 and 3-23 (i.e., with mitigation) is presented in column 5 of Tables 3-24 through 3-27. The estimated trip generation without mitigation, as shown in Table 3-19 and 3-20 is shown in parentheses where different for comparison.

TABLE 3-22
PROJECT TRIP GENERATION USING 18-CY CAPACITY TRUCKS WITH MITIGATION (MM TRA-1)

Land Use	Daily Trip End Volumes[a]	AM Peak Hour Volumes[b]			Mid-Day Peak Hour Volumes[b]			PM Peak Hour Volumes[b]		
		In	Out	Total	In	Out	Total	In	Out	Total
[A] Employees at Pacoima Spreading Grounds	18	2	2	4	2	2	4	2	2	4
[B] Vulcan (Haul Routes A + B): 18-cy Trips (unadjusted)[b]	208	9 (13)	9 (13)	18 (26)	13	13	26	16 (13)	16 (13)	32 (26)
[C] Sunshine Canyon (Haul Route C): 18-cy Trips (unadjusted)[c]	164	4 (10)	4 (10)	8 (20)	13 (10)	13 (10)	26 (20)	7 (10)	7 (10)	14 (20)
[D] Vulcan: PCE-adjusted 18-cy Trips[d]	624	27 (39)	27 (39)	54 (78)	39	39	78	48 (39)	48 (39)	96 (78)
[E] Sunshine Canyon: PCE-adjusted 18-cy Trips[d]	492	12 (30)	12 (30)	24 (60)	39 (30)	39 (30)	78 (60)	21 (30)	21 (30)	42 (60)
Net Increase with 18-cy Trucks ([A]+[B]+[C])	**390**	**15 (25)**	**15 (25)**	**30 (50)**	**28 (25)**	**28 (25)**	**56 (50)**	**25**	**25**	**50**
Net PCE-adjusted Increase with 18-cy Trucks ([A]+[D]+[E])	**1,134**	**41 (71)**	**41 (71)**	**82 (142)**	**80 (71)**	**80 (71)**	**160 (142)**	**71**	**71**	**142**

cy: cubic yards; PCE: passenger car equivalency, tpd: tons per day

Based on coordination with the LACFCD, the following are assumed:

- Total sediment to be exported = 1,370,000 cy, with 1 cy = 1.5 tons
- Up to 2,800 tpd would be exported to the Vulcan pits and up to 2,200 tpd would be exported to the Sunshine Canyon Landfill.
- Hours of Truck Hauling Operations: Mondays to Fridays, 9:00 AM to 5:30 PM (8 hours of hauling per day are assumed)

[a] Trip ends are one-way traffic movements, entering or leaving.

[b] Daily truck trips to/from the Vulcan pits were derived based on the following, using 18-cy capacity per haul truck:

- (2,800 tons per day) x (1 cy per 1.5 tons) = 1,867 cy per day / 18 cy per truck = 104 inbound trips + 104 outbound trips = 208 total daily truck trips.
- Recommended transportation demand management (mitigation) measures to Vulcan pits for solely 18-cy trucks are as follows:
  AM peak hour: Reduce the transport from 17 to 11 trip ends
  Midday peak hour: Maintain the transport at 17 trip ends
  PM peak hour: Increase the transport from 17 to 20 trip ends

[c] Daily truck trips to/from the Sunshine Canyon Landfill site were derived based on the following, using 18-cy capacity per haul truck:

- (2,200 tons per day) x (1 cy per 1.5 tons) = 1,467 cy per day / 18 cy per truck = 82 inbound trips + 82 outbound trips = 164 total daily truck trips.
- Recommended transportation demand management (mitigation) measures to Sunshine Canyon Landfill for solely 18-cy trucks are as follows:
  AM peak hour: Reduce the transport of from 10 to 4 trip ends
  Midday peak hour: Increase the transport from 10 to 13 trip ends
  PM peak hour: Reduce the transport trucks from 10 to 7 trip ends

[d] A PCE factor of 3.0 was employed for 18-cy trucks for analysis purposes only. This accounts for the assumption that a single 18-cy capacity haul truck has the same overall effect on intersection traffic operations as 3 passenger cars.

Source: LLG 2017. (Appendix F)

TABLE 3-23
PROJECT TRIP GENERATION USING 14-CY CAPACITY TRUCKS WITH MITIGATION (MM TRA-1)

Land Use	Daily Trip End Volumes[b]	AM Peak Hour Volumes[b]			Mid-Day Peak Hour Volumes[b]			PM Peak Hour Volumes[b]		
		In	Out	Total	In	Out	Total	In	Out	Total
[A] Employees at Pacoima Spreading Grounds	18	2	2	4	2	2	4	2	2	4
[B] Vulcan: 14-cy Truck Trips (unadjusted)[c]	268	11 (17)	11 (17)	22 (34)	17	17	34	20 (17)	20 (17)	40 (34)
[C] Sunshine Canyon: 14-cy Trips (unadjusted)[d]	210	5 (13)	5 (13)	10 (26)	17 (13)	17 (13)	34 (26)	9 (13)	9 (13)	18 (26)
[D] Vulcan: PCE-adjusted 14-cy Trips[e]	670	28 (43)	28 (43)	56 (86)	43	43	86	50 (43)	50 (43)	100 (86)
[E] Sunshine Canyon: PCE-adjusted 14-cy Trips[e]	526	13 (33)	13 (33)	26 (66)	43 (33)	43 (33)	86 (66)	23 (33)	23 (33)	46 (66)
Net Increase with 14-cy Trucks ([A]+[B]+[C])	**496**	**18 (32)**	**18 (32)**	**36 (64)**	**36 (32)**	**36 (32)**	**72 (64)**	**31 (32)**	**31 (32)**	**62 (32)**
Net PCE-adjusted Increase with 14-cy Trucks ([A]+[D]+[E])	**1,214**	**43 (78)**	**43 (78)**	**86 (156)**	**88 (78)**	**88 (78)**	**176 (156)**	**75 (78)**	**75 (78)**	**150 (156)**

cy: cubic yards; PCE: passenger car equivalency, tpd: tons per day

Based on coordination with the LACFCD, the following are assumed:
- Total sediment to be exported = 1,370,000 cy, with 1 cy = 1.5 tons
- Up to 2,800 tpd would be exported to the Vulcan pits and up to 2,200 tpd would be exported to the Sunshine Canyon Landfill.
- Hours of Truck Hauling Operations: Mondays to Fridays, 9:00 AM to 5:30 PM (8 hours of hauling per day are assumed)

[a] Trip ends are one-way traffic movements, entering or leaving.

[b] Daily truck trips to/from the Vulcan pits were derived based on the following, using 14-cy capacity per haul truck:
- (2,800 tons per day) x (1 cy per 1.5 tons) = 1,867 cy per day / 14 cy per truck = 134 inbound trips + 134 outbound trips = 268 total daily truck trips.
- Recommended transportation demand management (mitigation) measures to Vulcan pits for solely 14-cy trucks are as follows:
  AM peak hour: Reduce the transport from 17 to 11 trip ends
  Midday peak hour: Maintain the transport at 17 trip ends
  PM peak hour: Increase the transport from 17 to 20 trip ends

[c] Daily truck trips to/from the Sunshine Canyon Landfill site were derived based on the following, using 14-cy capacity per haul truck:
- (2,200 tons per day) x (1 cy per 1.5 tons) = 1,467 cy per day / 14 cy per truck = 105 inbound trips + 105 outbound trips = 210 total daily truck trips.
- Recommended transportation demand management (mitigation) measures to Sunshine Canyon Landfill for solely 14-cy trucks are as follows:
  AM peak hour: Reduce the transport from 13 to 5 trip ends
  Midday peak hour: Increase the transport from 13 to 17 trip ends
  PM peak hour: Reduce the transport from 13 to 9 trip ends

[d] A PCE factor of 2.5 was employed for 14-cy trucks for analysis purposes only. This accounts for the assumption that a single 14-cy capacity haul truck has the same overall effect on intersection traffic operations as 2.5 passenger cars.

Source: LLG 2017. (Appendix F)

As shown in Table 3-22, using solely 18-cy capacity haul trucks, the proposed Project would generate a total of 390 trip ends, including 372 daily truck trip ends (186 inbound and 186 outbound) during a typical weekday plus 18 daily employee trip ends. This includes a total of 208 trip ends to the Vulcan pits on Modified Haul Route A and Haul Route B, and 164 trip ends to Sunshine Canyon Landfill on Haul Route C. Applying the PCE factor of 3.0 to the truck trips, this equates to a generation of 1,134 PCE-adjusted daily trip ends, which is the number of trips applied in the analysis of potential traffic impacts.

As presented in Table 3-23, using solely 14-cy capacity haul trucks, the proposed Project would generate a total of 478 daily truck trip ends during a typical weekday (239 inbound and 239 outbound) plus 18 employee trip ends. This includes a total of 268 trip ends to the Vulcan pits and 210 trip ends to Sunshine Canyon Landfill. Applying the PCE factor of 2.5 to the truck trips, this equates to a generation of 1,214 PCE-adjusted daily trip ends.

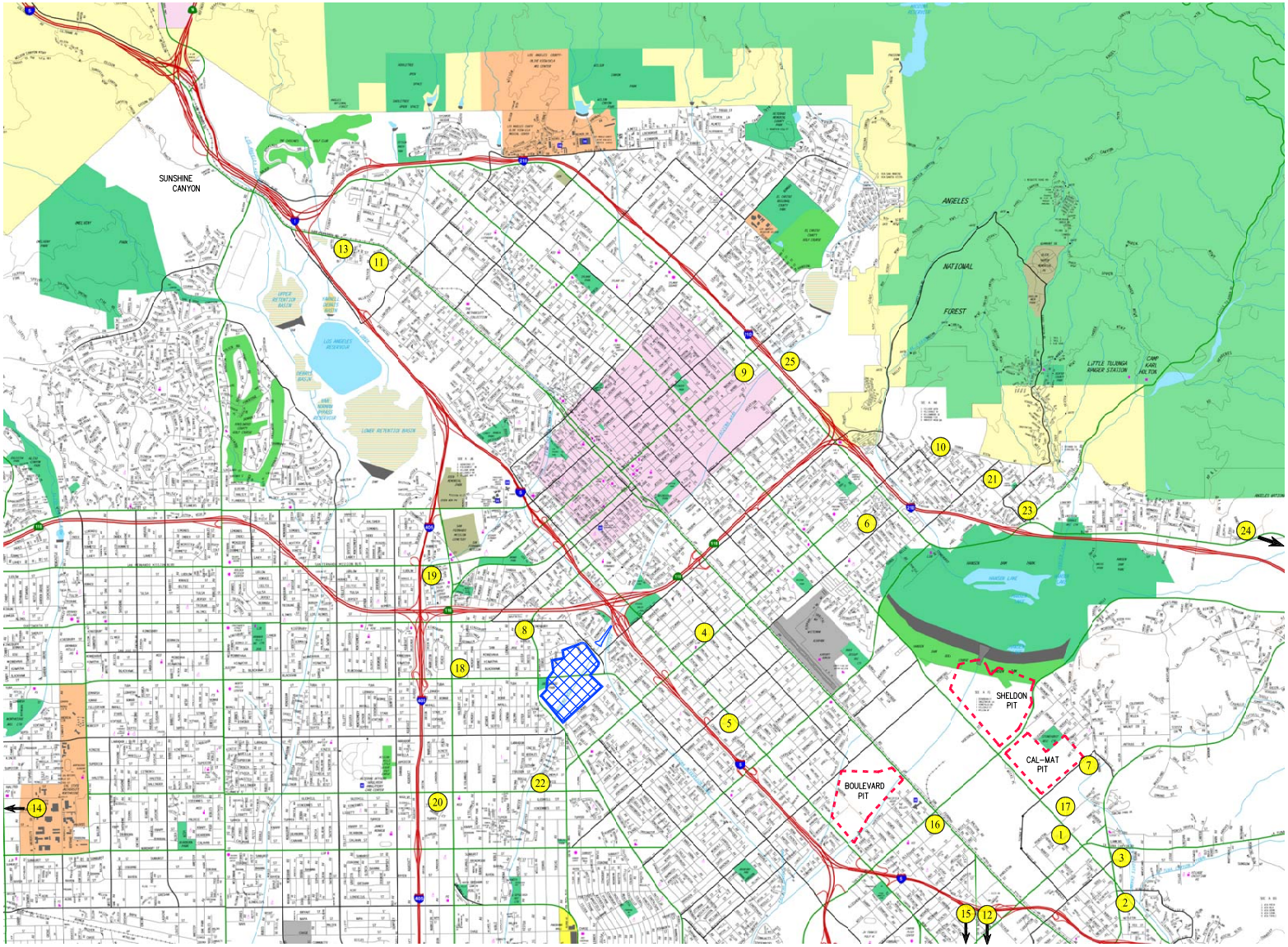
Using haul trucks with 14-cy capacity per truck will provide a slightly higher, more conservative assessment of potential Project trip generation. Therefore, the Revised TIS utilizes the Project trip generation forecasts based on the use of 14-cy capacity haul trucks in order to provide a conservative assessment of potential Project-related traffic impacts.

As discussed in Section 2.4.1, Project Components, implementation of the Project would also generate trips associated with demolition waste disposal (approximately 77 trips total for intake canal demolition) and worker trips (18 trips per day). There would be a finite number of trips associated with equipment delivery at the initiation of the Project. The Revised TIS focuses on the effect of the sediment haul truck trips due to the volume and frequency of this traffic as well as the daily worker trips; the other Project-related trips during the construction period are negligible in comparison to the daily haul truck and worker trips.

Intersection Levels of Service Analysis

Consistent with LADOT guidelines, the Revised TIS analyzed the following scenarios: (1) Existing Conditions, (2) Existing with Project, (3) Cumulative without Project, (4) Cumulative with Project, and (5) Future with Project and Mitigation (if necessary).

The Revised TIS determined that any combination of the use of only two of the three disposal sites (e.g., concurrent use of only the Boulevard and Sheldon Pits) would have the same or less potential short-term traffic impacts than those identified under either Alternative 2 (Boulevard Pit) or Alternative 3 (Sheldon Pit). Therefore, since all combinations of two of the three disposal sites would have the same or less traffic impacts than those identified under Alternative 2 and Alternative 3 (i.e., the two Alternatives each with one significant temporary traffic impact to/from the Vulcan Materials disposal sites), all potential construction-related traffic impacts are encompassed by Alternatives 1 through 4. For the analysis scenarios for the future condition, a forecast of on-street traffic conditions was prepared by incorporating the potential trips associated with other known development projects (i.e., related projects) in the area. Related projects were researched by LLG based on information on file at both the County of Los Angeles Department of Regional Planning and the City of Los Angeles Departments of Planning and Transportation, as well as consultation with the LACFCD to determine any flood-control related projects with overlapping haul routes and schedules. Exhibit 3-8, Related Projects Map, illustrates each project's location. As shown in Table 3-24, Related Projects List, both the Devil's Gate Sediment Removal Project and the Lopez Spreading Grounds Improvement Project (Map Nos. 24 and 25 on Exhibit 3-8) are included. Other spreading ground improvement and sediment removal projects have been considered but are not applicable as related projects because they either (1) do not have any haul route overlaps with the Project, (2) are forecasted to begin after the Project's completion, or 3) they propose to only use conveyor belts for the transport of materials (i.e., no trucks).



EXISTING PACOIMA SPREADING GROUNDS

Source: Linscott, Law & Greenspan, Engineers 2017

Related Projects Map

Exhibit 3-8

Pacoima Spreading Grounds Improvement Project

N
W E
S

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TABLE 3-24
RELATED PROJECTS LIST

Map No.	Project Status	Project/Location[1]	Lead Agency	Land Use Data		Daily Trip End [2] Volumes	AM Peak Hour Volumes [2]			Mid-day Peak Hour Volumes [2]			PM Peak Hour Volumes [2]		
				Land-Use	Size		In	Out	Total	In	Out	Total	In	Out	Total
1	Proposed	Community Recycling & Resource Recovery (9189 De Garmo Avenue)	City of Los Angeles	Industrial	2,200 GSF	1,534	135	130	265	162	147	309	162	147	309
2	Proposed	Sunland Commercial (8652 Sunland Boulevard)	City of Los Angeles	Retail	17,000 GLSF	760	12	8	20	33	36	69	33	36	69
				Office	7,000 GSF	173	20	3	23	15	72	87	15	72	87
3	Proposed	Sun Valley Care Ministries 9000 Sunland Boulevard	City of Los Angeles	School	140 Seats	1,582	89	48	137	74	103	177	74	103	177
				School	50 Seats										
				Retail	15,040 GLSF										
				Office	17,040 GSF										
				Single-Family Residential	2 DU										
				(Less Existing School)	(40) Seats										
				(Less Existing Single-Family)	(2) DU										
				(Less Existing Retail)	(3,632) GLSF										
				(Less Existing Office)	(1,604) GSF										
4	Proposed	Hotel Pacoima (13535 Van Nuys Boulevard)	City of Los Angeles	Hotel	44 Rooms	359	15	10	25	14	12	26	14	12	26
5	Proposed	Discovery Charter Preparatory School (9989 Laurel Canyon Boulevard)	City of Los Angeles	Private High School	400 Students	1,680	221	147	368	Nom.	Nom.	Nom.	64	104	168
6	Proposed	Fenton Charter Elementary School (11351 Dronfield Avenue)	City of Los Angeles	School Expansion	300 Students	1,800	150	125	275	Nom.	Nom.	Nom.	85	95	180
7	Proposed	11038 Peoria Street	City of Los Angeles	TV and Commercial Stage	[1]	914	125	21	146	15	60	75	15	60	75
8	Proposed	St. Ephraim Cathedral [3], [4], [5] 10635 N Woodman Avenue	City of Los Angeles	Church	45,998 SF	419	16	10	26	12	13	25	12	13	25
				Multi-purpose building											
				Fellowship Hall/Administration											
				Senior Housing	28 DU	96	2	4	6	4	3	7	4	3	7
				Bishops Residence	2 DU	19	1	1	2	1	1	2	1	1	2
9	Proposed	13260 W Maclay Street [6]	City of Los Angeles	Apartment	141 DU	1,370	25	74	99	79	52	131	79	52	131
				Retail	10,115 GLSF										
10	Proposed	11887 Terra Vista Way	City of Los Angeles	Condominium	78 DU	610	13	39	52	35	26	61	35	26	61
11	Proposed	15900 Olden Street	City of Los Angeles	Industrial	245,631 GSF	1,336	155	21	176	23	165	188	23	165	188
12	Proposed	7934 Lankershim Boulevard	City of Los Angeles	Retail	60,000 GLSF	3,195	74	74	148	138	138	276	138	138	276
13	Proposed	13505 San Fernando Road	City of Los Angeles	Industrial	225,000 GSF	4,202	266	71	337	108	277	385	108	277	385
				Recreational Facility	10 Acres										
				Sylmar Flyaway	1,290 Spaces										
14	Proposed	Lakeside Park (15300 West Lakeside Street)	City of Los Angeles	Park	25,000 GSF	810	145	38	183	155	160	315	155	160	315
15	Proposed	7-Eleven 7955 Laurel Canyon Boulevard	City of Los Angeles	Convenience Store	2,500 GSF	586	35	37	72	14	12	26	14	12	26
				Retail	2,000 GLSF										
16	Proposed	Alliance Middle & High School 11933 Allegheny Street	City of Los Angeles	Middle School	450 Seats	1,953	389	249	638	Nom.	Nom.	Nom.	58	76	134
				High School	600 Seats										
17	Proposed	11063 Pendleton Street [7]	City of Los Angeles	Warehouse	364,690 GSF	613	28	12	40	14	30	44	14	30	44
18	Under Construction	10310 Sepulveda Boulevard [8]	City of Los Angeles	Shopping Center	159,439 GSF	1,764	89	82	171	130	116	246	130	107	237
19	Proposed	15530 San Fernando Mission Boulevard [9]	City of Los Angeles	Senior Assisted Living	191 Beds	523	23	11	34	28	27	55	28	27	55
20	Proposed	15508 Plummer Street	City of Los Angeles	Townhome	78 DU	513	7	32	39	30	16	46	30	16	46
21	Proposed	11604 Eldridge Avenue	City of Los Angeles	Single-Family Residence	70 DU	666	13	40	53	44	26	70	44	26	70

TABLE 3-24
RELATED PROJECTS LIST

Map No.	Project Status	Project/Location[1]	Lead Agency	Land Use Data		Daily Trip End [2] Volumes	AM Peak Hour Volumes [2]			Mid-day Peak Hour Volumes [2]			PM Peak Hour Volumes [2]		
				Land-Use	Size		In	Out	Total	In	Out	Total	In	Out	Total
22	Proposed	14709 Plummer Street	City of Los Angeles	Apartment	28 DU	248	5	14	19	16	10	26	16	10	26
23	Proposed	11348 Lexicon Avenue	City of Los Angeles	Retail	2,603 GLSF	1,863	82	81	163	71	70	141	71	70	141
				Convenience Store	2,940 GSF										
				Gas Station	8 VFP										
24	Approved	Devil's Gate Reservoir Sediment Removal and Management Project [10] [11]	County (Los Angeles County Flood Control District)	Sediment Removal	480,000 CY	442	127	152	279	127	152	279	127	152	279
25	Proposed	Lopez Spreading Grounds Project [12]	County (Los Angeles County Flood Control District)	Sediment Removal	230,000 CY	660	43	43	86	43	43	86	43	43	86
					TOTALS	**30,690**	**2,305**	**1,577**	**3,882**	**1,385**	**1,767**	**3,152**	**1,592**	**2,033**	**3,625**

GSF: gross square feet; GLSF: gross leasable square feet; DU: dwelling unit; SF: square feet; CY: cubic yards

[1] City of Los Angeles Department of Transportation (LADOT), and Los Angeles County Flood Control District (LACFCD), except as noted below. The peak hour traffic volumes were forecast based on trip data provided by LADOT and by applying trip rates as provided in the ITE "Trip Generation Manual", 9th Edition, 2012. For those related projects that LADOT provided trip data, the peak-hour directional distribution data provided in the ITE "Trip Generation Manual" were utilized.
[2] Trips are one-way traffic movements, entering or leaving.
[3] ITE Land Use Code 560 (Church) trip generation average rates.
[4] ITE Land Use Code 252 (Senior Adult Housing-Attached) trip generation average rates.
[5] ITE Land Use Code 210 (Single-Family Detached Housing) trip generation average rates.
[6] Daily trip rates were not provided, therefore ITE Land Use Codes 220 (Apartment) and 820 (Shopping Center) trip generation average rates were utilized.
[7] ITE Land Use Code 152 (High-Cube Warehouse/Distribution Center) trip generation average rates.
[8] Source: "Olivo Shopping Center at Mission Hills Initial Study/Mitigated Negative Declaration", prepared by Parker Environmental Consultants, December 21, 2015.
[9] ITE Land Use Code 254 (Assisted Living) trip generation average rates.
[10] "Devil's Gate Reservoir Sediment Removal and Management Project TIS", prepared by Hall & Foreman, Inc., October 18, 2013.
[11] Since the preparation of the Revised TIS and associated related projects list, the Devil's Gate project has been reduced in scope and delayed as a result of court proceedings. Therefore, the Revised TIS presents a conservative scenario with respect to traffic generated by this related project.
[12] Based on initial coordination with Los Angeles County Department of Public Works staff.

Source: LLG 2017 (Appendix F)

The other aspect of assessing the future conditions is ambient growth to account for area-wide regional growth. Horizon year background traffic growth estimates have been calculated using an ambient traffic growth factor. The existing traffic volumes were increased at an annual rate of 1.5 percent to the year 2020 (i.e., the anticipated year of Project completion), based on the general traffic growth factors provided in the *2010 Congestion Management Program for Los Angeles County* (the "CMP manual") and determined in consultation with LADOT staff. It is noted that, based on review of the general traffic growth factors provided in the CMP manual for the Project area (i.e., Regional Statistical Area No. 14 – San Fernando, Granada Hills, Sylmar, Tujunga), it is anticipated that the existing traffic volumes are expected to increase at an annual rate of approximately 0.49 percent per year between the years 2010 and 2020. Further, it is noted that the CMP manual's traffic growth rate is intended to anticipate future traffic generated by development projects in the Project vicinity. Therefore, the application of a 1.5 percent annual growth factor plus traffic by known related projects provides a conservative, worst-case forecast of future traffic volumes at study intersections by considering an annual growth factor of approximately three times the CMP manual and also considering the trip generation of known related projects (refer to Table 3-24).

Existing Conditions (2017)

The existing traffic conditions are shown in Column (1) of Tables 3-25 through 3-28 for Alternatives 1 through 4, respectively. As shown, 48 of the 56 study intersections are operating at LOS D or better during the weekday AM, mid-day, and PM peak hours under existing conditions. The following eight study intersections are operating at LOS E or LOS F during the weekday AM and/or PM peak hour under existing conditions:

- Int. 15: Laurel Canyon Boulevard/Paxton Street (PM Peak Hour)
- Int. 29: Glenoaks Boulevard/Osborne Street (AM Peak Hour)
- Int. 47: Balboa Road/San Fernando Road (AM Peak Hour)
- Int. 49: I-5 SB Ramps/Roxford St-Sepulveda Blvd (AM Peak Hour)
- Int. 50: I-5 NB Off-Ramp/Roxford Street (AM and PM Peak Hours)
- Int. 52: I-405 SB Ramps-Blucher Av/Devonshire St (AM Peak Hour)
- Int. 54: Sepulveda Boulevard/Devonshire Street (PM Peak Hour)
- Int. 56: Woodman Avenue/Devonshire Street (AM Peak Hour)

Existing (2017) with Project

In order to determine the operating conditions of the street system under Existing with Project conditions, traffic to be generated by the Project was added to the existing traffic conditions. The Existing with Project traffic conditions are shown in Column (2) of Tables 3-25 through 3-28. As shown, the Project would result in a significant impact at the following five study intersections under Alternatives 1, 2, 3, and 4:

- Int. 46: San Fernando Road/Sunshine Canyon Road (AM Peak Hour)
- Int. 49: I-5 SB Ramps/Roxford St-Sepulveda Blvd (AM Peak Hour)
- Int. 50: I-5 NB Off-Ramp/Roxford Street (AM and PM Peak Hours)
- Int. 54: Sepulveda Boulevard/Devonshire Street (PM Peak Hour)
- Int. 56: Woodman Avenue/Devonshire Street (AM Peak Hour)

It is noted that all five study intersections expected to be significantly impacted by the Project under the Existing with Project conditions are located along Haul Route C (i.e., to and from the

Sunshine Canyon Landfill site). Incremental, but not significant, traffic impacts would occur at the remaining 51 study intersections under Alternatives 1, 2, 3, and 4. There would no significant traffic impacts at any of the study intersections during the mid-day peak hour conditions.

Cumulative (2020) without Project

The Cumulative without Project conditions result from the addition of both traffic generated by completion and occupancy of the related projects (Table 3-24), and the growth in traffic due to the combined effects of continuing development, intensification of existing developments and other factors (i.e., 1.5 percent ambient growth rate ambient growth) but without the addition of Project traffic. This is referred to as the cumulative baseline.

As shown in Column (3) of Tables 3-25 through 3-28, 37 of the 56 study intersections are expected to continue operating at LOS D or better during the weekday AM, mid-day, and PM peak hours under the Cumulative without Project conditions. The following 19 study intersections are expected to operate at LOS E or LOS F during the weekday AM and/or PM peak hour under the cumulative baseline conditions:

- Int. 5: Laurel Canyon Boulevard/Branford Street (AM Peak Hour)
- Int. 6: San Fernando Road/Branford Street (AM Peak Hour)
- Int. 7: Laurel Canyon Bl/I-5 NB Off-Ramp-Jerome St (AM Peak Hour)
- Int. 8: Laurel Canyon Boulevard/Sheldon Street (AM Peak Hour)
- Int. 9: Laurel Canyon Boulevard/I-5 SB Ramps (AM Peak Hour)
- Int. 14: Glenoaks Boulevard/Sheldon Street (AM Peak Hour)
- Int. 15: Laurel Canyon Boulevard/Paxton Street (PM Peak Hour)
- Int. 19: San Fernando Road/Paxton Street (AM and PM Peak Hours)
- Int. 21: San Fernando Road/Van Nuys Boulevard (AM Peak Hour)
- Int. 22: San Fernando Road/Pierce Street (AM Peak Hour)
- Int. 24: San Fernando Road/Osborne Street (AM and PM Peak Hours)
- Int. 26: Arleta Avenue/Van Nuys Boulevard (AM and PM Peak Hours)
- Int. 29: Glenoaks Boulevard/Osborne Street (AM and PM Peak Hours)
- Int. 47: Balboa Road/San Fernando Road (AM Peak Hour)
- Int. 49: I-5 SB Ramps/Roxford St-Sepulveda Blvd (AM Peak Hour)
- Int. 50: I-5 NB Off-Ramp/Roxford Street (AM and PM Peak Hours)
- Int. 52: I-405 SB Ramps-Blucher Ave/Devonshire St (AM Peak Hour)
- Int. 54: Sepulveda Boulevard/Devonshire Street (AM and PM Peak Hours)
- Int. 56: Woodman Avenue/Devonshire Street (AM Peak Hour)

Significant Impacts at Study Intersections

Cumulative (2020) with Project and without MM TRA-1

The Cumulative with Project and without MM TRA-1 conditions are shown in Column (4) of Tables 3-25 through 3-28. As shown, the addition of the Project's construction traffic to the cumulative baseline would result in a significant impact at five study intersections under Alternative Route 1, six study intersections under Alternative Route 2, six study intersections under Alternative Route 3, and five study intersections under Alternative Route 4, as follows:

Alternative Route 1: Concurrent Use of All Vulcan Pits and Sunshine Canyon Landfill

- Int. 46: San Fernando Road/Sunshine Canyon Road (AM Peak Hour)
- Int. 49: I-5 SB Ramps/Roxford St-Sepulveda Blvd (AM and PM Peak Hours)
- Int. 50: I-5 NB Off-Ramp/Roxford Street (AM and PM Peak Hours)
- Int. 54: Sepulveda Boulevard/Devonshire Street (AM and PM Peak Hours)
- Int. 56: Woodman Avenue/Devonshire Street (AM Peak Hour)

Alternative Route 2: Use of Boulevard Pit Only and Sunshine Canyon Landfill

- Int. 6: San Fernando Road/Branford Street (AM peak hour)
- Int. 46: San Fernando Road/Sunshine Canyon Road (AM Peak Hour)
- Int. 49: I-5 SB Ramps/Roxford St-Sepulveda Blvd (AM and PM Peak Hours)
- Int. 50: I-5 NB Off-Ramp/Roxford Street (AM and PM Peak Hours)
- Int. 54: Sepulveda Boulevard/Devonshire Street (AM and PM Peak Hours)
- Int. 56: Woodman Avenue/Devonshire Street (AM Peak Hour)

Alternative Route 3: Use of Sheldon Pit Only and Sunshine Canyon Landfill

- Int. 14: Glenoaks Boulevard/Sheldon Street (AM peak hour)
- Int. 46: San Fernando Road/Sunshine Canyon Road (AM Peak Hour)
- Int. 49: I-5 SB Ramps/Roxford St-Sepulveda Blvd (AM and PM Peak Hours)
- Int. 50: I-5 NB Off-Ramp/Roxford Street (AM and PM Peak Hours)
- Int. 54: Sepulveda Boulevard/Devonshire Street (AM and PM Peak Hours)
- Int. 56: Woodman Avenue/Devonshire Street (AM Peak Hour)

Alternative Route 4: Use of Cal-Mat Pit Only and Sunshine Canyon Landfill

- Int. 46: San Fernando Road/Sunshine Canyon Road (AM Peak Hour)
- Int. 49: I-5 SB Ramps/Roxford St-Sepulveda Blvd (AM and PM Peak Hours)
- Int. 50: I-5 NB Off-Ramp/Roxford Street (AM and PM Peak Hours)
- Int. 54: Sepulveda Boulevard/Devonshire Street (AM and PM Peak Hours)
- Int. 56: Woodman Avenue/Devonshire Street (AM Peak Hour)

It is noted that five of the study intersections expected to be significantly impacted by the Project under the Cumulative with Project and without MM TRA-1 conditions are located along Haul Route C (Intersections 46, 49, 50, 54, and 56). Since Haul Route C is proposed to be utilized in conjunction with any of the four alternative routes, the same level of significant temporary traffic impacts are expected at these five study intersections under all four alternative route conditions, and are listed accordingly. For Alternative 1 and Alternative 4, these five intersections associated with Haul Route C are the only identified intersection impacts. In addition, one additional study intersection under the Alternative Route 2 condition (Intersection 6) and one study intersection under the Alternative Route 3 condition (Intersection 14) would also be significantly impacted by the Project under the Cumulative with Project and without MM TRA-1 conditions.

Incremental, but not significant, traffic impacts are noted in Column (4) at the remaining 49 study intersections with the addition of growth in ambient traffic at 1.5 percent per year, related projects traffic, and Project traffic under Alternative Routes 1, 2, 3, and 4 with implementation of

MM TRA-1. There would be no significant traffic impacts at any of the study intersections during the mid-day peak hour conditions.

Cumulative (2020) with Project and MM TRA-1

Based on the results of the intersection analyses presented in Columns (1) through (4) of Tables 3-25 through 3-28, and described above, the Revised TIS developed TDM measures to eliminate the identified impacts. The TDM measures presented in the Revised TIS are required as MMs TRA-1 and TRA-2. MM TRA-1 requires adjustments to the hourly truck trips as defined in Table 3-21. As mentioned, these adjustments result in proposed hauling operations that would be greater overall during the mid-day time period (generally from 10:00 AM to 3:00 PM), when background traffic volumes are typically lower than either the morning commute peak period (7:00 AM to 10:00 AM) or afternoon commute peak period (3:00 PM to 6:00 PM).

The Cumulative with Project and with MM TRA-1 conditions are shown in Column (5) of Tables 3-25 through 3-28. As shown, with implementation of MM TRA-1, the traffic impact identified at Intersections 14, 46, 49, 50, 54, and 56 would be reduced to a less than significant level. However, the impact identified at Intersection 6 (San Fernando Road/Brandford Street) for Alternative 2 (Use of Boulevard Pit Only and Sunshine Canyon Landfill) would remain significant. Therefore, MM TRA-2 commits the LACFCD and its Contractor to prohibiting the use of direct haul trucks to the Boulevard Pit exclusively. With implementation of MM TRA-2, there would be a less than significant impact at this intersection (Intersection 6).

Because this mitigation does not involve an intersection improvement, but an elimination of this traffic pattern (i.e., Alternative 2), the resulting traffic conditions with MM TRA-2 are reflected in Alternatives 1, 3, and 4 as shown in Table 3-25, 3-27, and 3-28.

TABLE 3-25
SUMMARY OF INTERSECTION CAPACITY ANALYSIS – ALTERNATIVE 1
(CONCURRENT USE OF ALL VULCAN PITS AND SUNSHINE CANYON LANDFILL)

			[1]		[2]				[3]		[4]				[5]			
No.	Intersection	Peak Hour	Year 2017 Existing V/C	Year 2017 Existing LOS	Year 2017 Existing with Project V/C	Year 2017 Existing with Project LOS	Change V/C [(2)-(1)]	Significant Impact? [a]	Year 2020 Cumulative without Project V/C	Year 2020 Cumulative without Project LOS	Year 2020 Cumulative with Project & without MM TRA-1 V/C	Year 2020 Cumulative with Project & without MM TRA-1 LOS	Change V/C [(4)-(3)]	Significant Impact? [a]	Year 2020 with Project and MM TRA-1 V/C	Year 2020 with Project and MM TRA-1 LOS	Change V/C [(5)-(3)]	Mitigated?
1	Arleta Avenue/	AM	0.584	A	0.624	B	0.040	No	0.629	B	0.669	B	0.040	No	0.655	B	0.026	---
	Devonshire Street	MID	0.242	A	0.273	A	0.031	No	0.267	A	0.298	A	0.031	No	0.298	A	0.031	---
		PM	0.516	A	0.551	A	0.035	No	0.551	A	0.586	A	0.035	No	0.593	A	0.042	---
2	Arleta Avenue/	AM	0.634	B	0.672	B	0.038	No	0.667	B	0.705	C	0.038	No	0.692	B	0.025	---
	Paxton Street	MID	0.337	A	0.375	A	0.038	No	0.359	A	0.397	A	0.038	No	0.397	A	0.038	---
		PM	0.614	B	0.653	B	0.039	No	0.648	B	0.686	B	0.038	No	0.693	B	0.045	---
3	I-5 Freeway SB Ramps-Sharp Avenue/	AM	0.673	B	0.703	C	0.030	No	0.708	C	0.737	C	0.029	No	0.728	C	0.020	---
	Paxton Street	MID	0.317	A	0.356	A	0.039	No	0.336	A	0.375	A	0.039	No	0.374	A	0.038	---
		PM	0.530	A	0.538	A	0.008	No	0.562	A	0.568	A	0.006	No	0.572	A	0.010	---
4	I-5 Freeway NB Ramps-Remick	AM	0.600	A	0.618	B	0.018	No	0.634	B	0.653	B	0.019	No	0.646	B	0.012	---
	Avenue/ Paxton Street	MID	0.376	A	0.393	A	0.017	No	0.398	A	0.416	A	0.018	No	0.416	A	0.018	---
		PM	0.597	A	0.614	B	0.017	No	0.631	B	0.648	B	0.017	No	0.652	B	0.021	---
5	Laurel Canyon Boulevard/	AM	0.816	D	0.816	D	0.000	No	0.932	E	0.932	E	0.000	No	0.932	E	0.000	---
	Branford Street	MID	0.414	A	0.417	A	0.003	No	0.458	A	0.461	A	0.003	No	0.461	A	0.003	---
		PM	0.735	C	0.739	C	0.004	No	0.812	D	0.815	D	0.003	No	0.814	D	0.002	---
6	San Fernando Road/	AM	0.756	C	0.765	C	0.009	No	0.907	E	0.915	E	0.008	No	0.912	E	0.005	---
	Branford Street	MID	0.525	A	0.546	A	0.021	No	0.594	A	0.615	B	0.021	No	0.616	B	0.022	---
		PM	0.648	B	0.669	B	0.021	No	0.730	C	0.751	C	0.021	No	0.760	C	0.030	---
7	Laurel Canyon Boulevard/	AM	0.802	D	0.802	D	0.000	No	0.903	E	0.903	E	0.000	No	0.903	E	0.000	---
	I-5 Freeway NB Off-Ramp-Jerome	MID	0.351	A	0.351	A	0.000	No	0.385	A	0.385	A	0.000	No	0.385	A	0.000	---
	Street	PM	0.674	B	0.678	B	0.004	No	0.728	C	0.731	C	0.003	No	0.731	C	0.003	---
8	Laurel Canyon Boulevard/	AM	0.839	D	0.839	D	0.000	No	0.911	E	0.911	E	0.000	No	0.911	E	0.000	---
	Sheldon Street	MID	0.369	A	0.369	A	0.000	No	0.415	A	0.415	A	0.000	No	0.415	A	0.000	---
		PM	0.645	B	0.648	B	0.003	No	0.722	C	0.725	C	0.003	No	0.725	C	0.003	---
9	Laurel Canyon Boulevard/	AM	0.814	D	0.814	D	0.000	No	0.907	E	0.907	E	0.000	No	0.907	E	0.000	---
	I-5 Freeway SB Ramps	MID	0.488	A	0.488	A	0.000	No	0.531	A	0.531	A	0.000	No	0.531	A	0.000	---
		PM	0.829	D	0.829	D	0.000	No	0.898	D	0.898	D	0.000	No	0.898	D	0.000	---
10	I-5 Freeway NB On-Ramp-Rincon	AM	0.704	C	0.704	C	0.000	No	0.859	D	0.859	D	0.000	No	0.859	D	0.000	---
	Avenue/Sheldon Street	MID	0.500	A	0.500	A	0.000	No	0.539	A	0.539	A	0.000	No	0.539	A	0.000	---
		PM	0.662	B	0.662	B	0.000	No	0.727	C	0.727	C	0.000	No	0.727	C	0.000	---
11	Haddon Avenue/	AM	0.483	A	0.483	A	0.000	No	0.564	A	0.564	A	0.000	No	0.564	A	0.000	---
	Sheldon Street	MID	0.183	A	0.183	A	0.000	No	0.206	A	0.206	A	0.000	No	0.206	A	0.000	---
		PM	0.354	A	0.354	A	0.000	No	0.392	A	0.392	A	0.000	No	0.392	A	0.000	---
12	Telfair Avenue/	AM	0.551	A	0.551	A	0.000	No	0.771	C	0.771	C	0.000	No	0.771	C	0.000	---
	Sheldon Street	MID	0.170	A	0.170	A	0.000	No	0.193	A	0.193	A	0.000	No	0.193	A	0.000	---
		PM	0.347	A	0.347	A	0.000	No	0.409	A	0.409	A	0.000	No	0.409	A	0.000	---
13	San Fernando Road/	AM	0.761	C	0.761	C	0.000	No	0.882	D	0.882	D	0.000	No	0.882	D	0.000	---
	Sheldon Street	MID	0.427	A	0.427	A	0.000	No	0.486	A	0.486	A	0.000	No	0.486	A	0.000	---
		PM	0.679	B	0.679	B	0.000	No	0.757	C	0.757	C	0.000	No	0.757	C	0.000	---

TABLE 3-25
SUMMARY OF INTERSECTION CAPACITY ANALYSIS – ALTERNATIVE 1
(CONCURRENT USE OF ALL VULCAN PITS AND SUNSHINE CANYON LANDFILL)

			[1]		[2]				[3]		[4]				[5]			
No.	Intersection	Peak Hour	Year 2017 Existing V/C	Year 2017 Existing LOS	Year 2017 Existing with Project V/C	Year 2017 Existing with Project LOS	Change V/C [(2)-(1)]	Significant Impact? [a]	Year 2020 Cumulative without Project V/C	Year 2020 Cumulative without Project LOS	Year 2020 Cumulative with Project & without MM TRA-1 V/C	Year 2020 Cumulative with Project & without MM TRA-1 LOS	Change V/C [(4)-(3)]	Significant Impact? [a]	Year 2020 with Project and MM TRA-1 V/C	Year 2020 with Project and MM TRA-1 LOS	Change V/C [(5)-(3)]	Mitigated?
14	Glenoaks Boulevard/	AM	0.801	D	0.805	D	0.004	No	0.931	E	0.936	E	0.005	No	0.934	E	0.003	---
	Sheldon Street	MID	0.439	A	0.445	A	0.006	No	0.557	A	0.562	A	0.005	No	0.562	A	0.005	---
		PM	0.613	B	0.618	B	0.005	No	0.741	C	0.745	C	0.004	No	0.746	C	0.005	---
15	Laurel Canyon Boulevard/	AM	0.815	D	0.821	D	0.006	No	0.888	D	0.894	D	0.006	No	0.892	D	0.004	---
	Paxton Street	MID	0.463	A	0.478	A	0.015	No	0.500	A	0.515	A	0.015	No	0.515	A	0.015	---
		PM	0.903	E	0.908	E	0.005	No	0.967	E	0.973	E	0.006	No	0.976	E	0.009	---
16	Haddon Avenue/	AM	0.514	A	0.521	A	0.007	No	0.538	A	0.546	A	0.008	No	0.543	A	0.005	---
	Paxton Street	MID	0.292	A	0.299	A	0.007	No	0.307	A	0.313	A	0.006	No	0.314	A	0.007	---
		PM	0.579	A	0.586	A	0.007	No	0.607	B	0.613	B	0.006	No	0.617	B	0.010	---
17	Kewen Avenue/	AM	0.533	A	0.540	A	0.007	No	0.558	A	0.566	A	0.008	No	0.563	A	0.005	---
	Paxton Street	MID	0.284	A	0.292	A	0.008	No	0.299	A	0.306	A	0.007	No	0.307	A	0.008	---
		PM	0.543	A	0.550	A	0.007	No	0.570	A	0.577	A	0.007	No	0.580	A	0.010	---
18	Telfair Avenue/	AM	0.401	A	0.407	A	0.006	No	0.426	A	0.431	A	0.005	No	0.429	A	0.003	---
	Paxton Street	MID	0.185	A	0.200	A	0.015	No	0.201	A	0.215	A	0.014	No	0.215	A	0.014	---
		PM	0.380	A	0.385	A	0.005	No	0.403	A	0.408	A	0.005	No	0.411	A	0.008	---
19	San Fernando Road/	AM	0.869	D	0.869	D	0.000	No	0.949	E	0.949	E	0.000	No	0.949	E	0.000	---
	Paxton Street	MID	0.712	C	0.712	C	0.000	No	0.768	C	0.768	C	0.000	No	0.768	C	0.000	---
		PM	0.845	D	0.845	D	0.000	No	0.915	E	0.915	E	0.000	No	0.915	E	0.000	---
20	San Fernando Road/	AM	0.562	A	0.567	A	0.005	No	0.629	B	0.634	B	0.005	No	0.632	B	0.003	---
	SR-118 Freeway EB Ramps	MID	0.404	A	0.409	A	0.005	No	0.447	A	0.453	A	0.006	No	0.453	A	0.006	---
		PM	0.527	A	0.533	A	0.006	No	0.583	A	0.588	A	0.005	No	0.591	A	0.008	---
21	San Fernando Road/	AM	0.797	C	0.803	D	0.006	No	0.916	E	0.923	E	0.007	No	0.920	E	0.004	---
	Van Nuys Boulevard	MID	0.493	A	0.499	A	0.006	No	0.544	A	0.550	A	0.006	No	0.550	A	0.006	---
		PM	0.681	B	0.688	B	0.007	No	0.761	C	0.767	C	0.006	No	0.770	C	0.009	---
22	San Fernando Road/	AM	0.820	D	0.826	D	0.006	No	0.938	E	0.944	E	0.006	No	0.941	E	0.003	---
	Pierce Street	MID	0.393	A	0.399	A	0.006	No	0.435	A	0.442	A	0.007	No	0.442	A	0.007	---
		PM	0.707	C	0.714	C	0.007	No	0.803	D	0.808	D	0.005	No	0.811	D	0.008	---
23	San Fernando Road/	AM	0.594	A	0.599	A	0.005	No	0.679	B	0.685	B	0.006	No	0.682	B	0.003	---
	Terra Bella Street	MID	0.259	A	0.265	A	0.006	No	0.294	A	0.299	A	0.005	No	0.300	A	0.006	---
		PM	0.421	A	0.427	A	0.006	No	0.475	A	0.480	A	0.005	No	0.483	A	0.008	---
24	San Fernando Road/	AM	0.835	D	0.841	D	0.006	No	0.940	E	0.946	E	0.006	No	0.944	E	0.004	---
	Osborne Street	MID	0.627	B	0.633	B	0.006	No	0.691	B	0.698	B	0.007	No	0.698	B	0.007	---
		PM	0.842	D	0.848	D	0.006	No	0.931	E	0.936	E	0.005	No	0.939	E	0.008	---
25	San Fernando Road/	AM	0.722	C	0.722	C	0.000	No	0.793	C	0.793	C	0.000	No	0.793	C	0.000	---
	SR-118 Freeway WB Ramps	MID	0.677	B	0.677	B	0.000	No	0.732	C	0.732	C	0.000	No	0.732	C	0.000	---
		PM	0.808	D	0.808	D	0.000	No	0.865	D	0.865	D	0.000	No	0.865	D	0.000	---
26	Arleta Avenue/	AM	0.896	D	0.897	D	0.001	No	0.972	E	0.973	E	0.001	No	0.973	E	0.001	---
	Van Nuys Boulevard	MID	0.502	A	0.502	A	0.000	No	0.544	A	0.545	A	0.001	No	0.545	A	0.001	---
		PM	0.893	D	0.893	D	0.000	No	0.963	E	0.964	E	0.001	No	0.964	E	0.001	---

TABLE 3-25
SUMMARY OF INTERSECTION CAPACITY ANALYSIS – ALTERNATIVE 1
(CONCURRENT USE OF ALL VULCAN PITS AND SUNSHINE CANYON LANDFILL)

			[1]		[2]				[3]		[4]				[5]			
No.	Intersection	Peak Hour	Year 2017 Existing V/C	Year 2017 Existing LOS	Year 2017 Existing with Project V/C	Year 2017 Existing with Project LOS	Change V/C [(2)-(1)]	Significant Impact? [a]	Year 2020 Cumulative without Project V/C	Year 2020 Cumulative without Project LOS	Year 2020 Cumulative with Project & without MM TRA-1 V/C	Year 2020 Cumulative with Project & without MM TRA-1 LOS	Change V/C [(4)-(3)]	Significant Impact? [a]	Year 2020 with Project and MM TRA-1 V/C	Year 2020 with Project and MM TRA-1 LOS	Change V/C [(5)-(3)]	Mitigated?
27	Bartee Avenue/	AM	0.515	A	0.515	A	0.000	No	0.561	A	0.561	A	0.000	No	0.561	A	0.000	---
	Van Nuys Boulevard	MID	0.335	A	0.335	A	0.000	No	0.363	A	0.363	A	0.000	No	0.363	A	0.000	---
		PM	0.447	A	0.447	A	0.000	No	0.484	A	0.484	A	0.000	No	0.484	A	0.000	---
28	I-5 Freeway NB Off-Ramp/	AM	0.705	C	0.705	C	0.000	No	0.773	C	0.773	C	0.000	No	0.773	C	0.000	---
	Van Nuys Boulevard	MID	0.533	A	0.533	A	0.000	No	0.570	A	0.570	A	0.000	No	0.570	A	0.000	---
		PM	0.645	B	0.645	B	0.000	No	0.698	B	0.698	B	0.000	No	0.698	B	0.000	---
29	Glenoaks Boulevard/	AM	1.032	F	1.032	F	0.000	No	1.200	F	1.200	F	0.000	No	1.200	F	0.000	---
	Osborne Street	MID	0.415	A	0.415	A	0.000	No	0.542	A	0.542	A	0.000	No	0.542	A	0.000	---
		PM	0.818	D	0.818	D	0.000	No	0.971	E	0.980	E	0.009	No	0.979	E	0.008	---
30	Dronfield Avenue/	AM	0.527	A	0.527	A	0.000	No	0.614	B	0.614	B	0.000	No	0.614	B	0.000	---
	Osborne Street	MID	0.233	A	0.233	A	0.000	No	0.293	A	0.293	A	0.000	No	0.293	A	0.000	---
		PM	0.447	A	0.456	A	0.009	No	0.517	A	0.525	A	0.008	No	0.525	A	0.008	---
31	Foothill Boulevard/	AM	0.711	C	0.711	C	0.000	No	0.875	D	0.875	D	0.000	No	0.875	D	0.000	---
	Osborne Street-Driveway	MID	0.278	A	0.278	A	0.000	No	0.393	A	0.393	A	0.000	No	0.393	A	0.000	---
		PM	0.507	A	0.507	A	0.000	No	0.635	B	0.635	B	0.000	No	0.635	B	0.000	---
32	Foothill Boulevard/	AM	0.585	A	0.594	A	0.009	No	0.684	B	0.693	B	0.009	No	0.690	B	0.006	---
	I-210 Freeway EB Ramps	MID	0.303	A	0.311	A	0.008	No	0.390	A	0.395	A	0.005	No	0.394	A	0.004	---
		PM	0.437	A	0.446	A	0.009	No	0.527	A	0.536	A	0.009	No	0.536	A	0.009	---
33	Foothill Boulevard/	AM	0.493	A	0.510	A	0.017	No	0.596	A	0.613	B	0.017	No	0.608	B	0.012	---
	I-210 Freeway WB Ramps	MID	0.247	A	0.264	A	0.017	No	0.332	A	0.349	A	0.017	No	0.349	A	0.017	---
		PM	0.387	A	0.405	A	0.018	No	0.480	A	0.497	A	0.017	No	0.497	A	0.017	---
34	Glenoaks Boulevard/	AM	0.587	A	0.587	A	0.000	No	0.672	B	0.672	B	0.000	No	0.672	B	0.000	---
	Montague Street	MID	0.235	A	0.235	A	0.000	No	0.299	A	0.299	A	0.000	No	0.299	A	0.000	---
		PM	0.569	A	0.578	A	0.009	No	0.647	B	0.656	B	0.009	No	0.655	B	0.008	---
35	Glenoaks Boulevard/	AM	0.576	A	0.590	A	0.014	No	0.671	B	0.685	B	0.014	No	0.680	B	0.009	---
	Branford Street	MID	0.279	A	0.293	A	0.014	No	0.360	A	0.374	A	0.014	No	0.373	A	0.013	---
		PM	0.662	B	0.674	B	0.012	No	0.743	C	0.755	C	0.012	No	0.755	C	0.012	---
36	Glenoaks Boulevard/	AM	0.479	A	0.483	A	0.004	No	0.569	A	0.573	A	0.004	No	0.571	A	0.002	---
	Truesdale Street	MID	0.184	A	0.194	A	0.010	No	0.253	A	0.261	A	0.008	No	0.261	A	0.008	---
		PM	0.473	A	0.483	A	0.010	No	0.554	A	0.563	A	0.009	No	0.565	A	0.011	---
37	Glenoaks Boulevard/	AM	0.427	A	0.427	A	0.000	No	0.526	A	0.526	A	0.000	No	0.526	A	0.000	---
	Peoria Street	MID	0.248	A	0.251	A	0.003	No	0.359	A	0.365	A	0.006	No	0.365	A	0.006	---
		PM	0.452	A	0.457	A	0.005	No	0.572	A	0.578	A	0.006	No	0.578	A	0.006	---
38	Glenoaks Boulevard/	AM	0.435	A	0.435	A	0.000	No	0.583	A	0.583	A	0.000	No	0.583	A	0.000	---
	Pendleton Street	MID	0.330	A	0.336	A	0.006	No	0.469	A	0.469	A	0.000	No	0.469	A	0.000	---
		PM	0.497	A	0.502	A	0.005	No	0.631	B	0.637	B	0.006	No	0.637	B	0.006	---
39	San Fernando Road (East)/	AM	0.676	B	0.690	B	0.014	No	0.743	C	0.757	C	0.014	No	0.753	C	0.010	---
	Tuxford Street	MID	0.547	A	0.561	A	0.014	No	0.613	B	0.627	B	0.014	No	0.627	B	0.014	---
		PM	0.624	B	0.638	B	0.014	No	0.694	B	0.708	C	0.014	No	0.708	C	0.014	---

TABLE 3-25
SUMMARY OF INTERSECTION CAPACITY ANALYSIS – ALTERNATIVE 1
(CONCURRENT USE OF ALL VULCAN PITS AND SUNSHINE CANYON LANDFILL)

			[1]		[2]				[3]		[4]				[5]			
			Year 2017 Existing		Year 2017 Existing with Project		Change V/C	Significant Impact?	Year 2020 Cumulative without Project		Year 2020 Cumulative with Project & without MM TRA-1		Change V/C	Significant Impact?	Year 2020 with Project and MM TRA-1		Change V/C	
No.	Intersection	Peak Hour	V/C	LOS	V/C	LOS	[(2)-(1)]	[a]	V/C	LOS	V/C	LOS	[(4)-(3)]	[a]	V/C	LOS	[(5)-(3)]	Mitigated?
40	Bradley Avenue/	AM	0.611	B	0.611	B	0.000	No	0.671	B	0.671	B	0.000	No	0.671	B	0.000	---
	Tuxford Street	MID	0.573	A	0.573	A	0.000	No	0.636	B	0.636	B	0.000	No	0.636	B	0.000	---
		PM	0.587	A	0.593	A	0.006	No	0.647	B	0.652	B	0.005	No	0.652	B	0.005	---
41	Glenoaks Boulevard/	AM	0.769	C	0.781	C	0.012	No	0.877	D	0.890	D	0.013	No	0.886	D	0.009	---
	Tuxford Street-La Tuna Canyon Road	MID	0.480	A	0.493	A	0.013	No	0.565	A	0.578	A	0.013	No	0.578	A	0.013	---
		PM	0.758	C	0.758	C	0.000	No	0.843	D	0.855	D	0.012	No	0.855	D	0.012	---
42	Tujunga Avenue/	AM	0.581	A	0.581	A	0.000	No	0.608	B	0.608	B	0.000	No	0.608	B	0.000	---
	Penrose Street	MID	0.535	A	0.535	A	0.000	No	0.560	A	0.560	A	0.000	No	0.560	A	0.000	---
		PM	0.658	B	0.658	B	0.000	No	0.688	B	0.688	B	0.000	No	0.688	B	0.000	---
43	San Fernando Road (West)/	AM	0.536	A	0.536	A	0.000	No	0.589	A	0.589	A	0.000	No	0.589	A	0.000	---
	Penrose Street	MID	0.443	A	0.443	A	0.000	No	0.483	A	0.483	A	0.000	No	0.483	A	0.000	---
		PM	0.595	A	0.595	A	0.000	No	0.645	B	0.645	B	0.000	No	0.645	B	0.000	---
44	San Fernando Road (East)/	AM	0.347	A	0.347	A	0.000	No	0.369	A	0.369	A	0.000	No	0.369	A	0.000	---
	Penrose Street	MID	0.381	A	0.381	A	0.000	No	0.405	A	0.405	A	0.000	No	0.405	A	0.000	---
		PM	0.376	A	0.376	A	0.000	No	0.398	A	0.398	A	0.000	No	0.398	A	0.000	---
45	I-5 Freeway SB Ramps/	AM	0.656	B	0.656	B	0.000	No	0.688	B	0.688	B	0.000	No	0.688	B	0.000	---
	Penrose Street	MID	0.745	C	0.745	C	0.000	No	0.781	C	0.781	C	0.000	No	0.781	C	0.000	---
		PM	0.710	C	0.710	C	0.000	No	0.744	C	0.744	C	0.000	No	0.744	C	0.000	---
46	San Fernando Road/	**AM**	**0.785**	**C**	**0.808**	**D**	**0.023**	**Yes**	**0.825**	**D**	**0.848**	**D**	**0.023**	**Yes**	**0.834**	**D**	**0.009**	**Yes**
	Sunshine Canyon Road	MID	0.251	A	0.274	A	0.023	No	0.268	A	0.291	A	0.023	No	0.298	A	0.030	---
		PM	0.573	A	0.573	A	0.000	No	0.604	B	0.604	B	0.000	No	0.604	B	0.000	---
47	Balboa Road/	AM	0.988	E	0.988	E	0.000	No	1.045	F	1.045	F	0.000	No	1.045	F	0.000	---
	San Fernando Road	MID	0.381	A	0.405	A	0.024	No	0.439	A	0.462	A	0.023	No	0.469	A	0.030	---
		PM	0.692	B	0.715	C	0.023	No	0.764	C	0.787	C	0.023	No	0.780	C	0.016	---
48	Sepulveda Boulevard/	AM	0.343	A	0.357	A	0.014	No	0.377	A	0.390	A	0.013	No	0.382	A	0.005	---
	San Fernando Road	MID	0.253	A	0.267	A	0.014	No	0.270	A	0.284	A	0.014	No	0.288	A	0.018	---
		PM	0.252	A	0.266	A	0.014	No	0.283	A	0.296	A	0.013	No	0.292	A	0.009	---
49	I-5 Freeway SB Ramps/	**AM**	**1.015**	**F**	**1.038**	**F**	**0.023**	**Yes**	**1.118**	**F**	**1.141**	**F**	**0.023**	**Yes**	**1.127**	**F**	**0.009**	**Yes**
	Roxford Street-Sepulveda Boulevard	MID	0.603	B	0.649	B	0.046	No	0.682	B	0.705	C	0.023	No	0.712	C	0.030	---
		PM	0.736	C	0.759	C	0.023	No	**0.823**	**D**	**0.846**	**D**	**0.023**	**Yes**	**0.839**	**D**	**0.016**	**Yes**
50	I-5 Freeway NB Off-Ramp/	**AM**	**0.965**	**E**	**0.978**	**E**	**0.013**	**Yes**	**1.053**	**F**	**1.067**	**F**	**0.014**	**Yes**	**1.058**	**F**	**0.005**	**Yes**
	Roxford Street	MID	0.776	C	0.789	C	0.013	No	0.866	D	0.880	D	0.014	No	0.884	D	0.018	---
		PM	**0.915**	**E**	**0.928**	**E**	**0.013**	**Yes**	**1.012**	**F**	**1.025**	**F**	**0.013**	**Yes**	**1.021**	**F**	**0.009**	**Yes**
51	I-5 Freeway NB Ramps-Encinitas Ave/	AM	0.795	C	0.795	C	0.000	No	0.887	D	0.887	D	0.000	No	0.887	D	0.000	---
	Roxford Street	MID	0.662	B	0.685	B	0.023	No	0.718	C	0.741	C	0.023	No	0.748	C	0.030	---
		PM	0.591	A	0.598	A	0.007	No	0.678	B	0.683	B	0.005	No	0.678	B	0.000	---
52	I-405 Freeway SB Ramps-Blucher Ave/	AM	0.912	E	0.912	E	0.000	No	0.969	E	0.969	E	0.000	No	0.969	E	0.000	---
	Devonshire Street	MID	0.363	A	0.364	A	0.001	No	0.389	A	0.390	A	0.001	No	0.390	A	0.001	---
		PM	0.576	A	0.576	A	0.000	No	0.616	B	0.616	B	0.000	No	0.616	B	0.000	---

TABLE 3-25
SUMMARY OF INTERSECTION CAPACITY ANALYSIS – ALTERNATIVE 1
(CONCURRENT USE OF ALL VULCAN PITS AND SUNSHINE CANYON LANDFILL)

			[1]		[2]				[3]		[4]				[5]			
No.	Intersection	Peak Hour	Year 2017 Existing V/C	Year 2017 Existing LOS	Year 2017 Existing with Project V/C	Year 2017 Existing with Project LOS	Change V/C [(2)-(1)]	Significant Impact? [a]	Year 2020 Cumulative without Project V/C	Year 2020 Cumulative without Project LOS	Year 2020 Cumulative with Project & without MM TRA-1 V/C	Year 2020 Cumulative with Project & without MM TRA-1 LOS	Change V/C [(4)-(3)]	Significant Impact? [a]	Year 2020 with Project and MM TRA-1 V/C	Year 2020 with Project and MM TRA-1 LOS	Change V/C [(5)-(3)]	Mitigated?
53	I-405 Freeway NB Ramps/	AM	0.540	A	0.551	A	0.011	No	0.592	A	0.603	B	0.011	No	0.597	A	0.005	---
	Devonshire Street	MID	0.343	A	0.343	A	0.000	No	0.380	A	0.380	A	0.000	No	0.380	A	0.000	---
		PM	0.500	A	0.511	A	0.011	No	0.548	A	0.559	A	0.011	No	0.556	A	0.008	---
54	Sepulveda Boulevard/	**AM**	0.888	D	0.900	D	0.012	No	**0.960**	**E**	**0.972**	**E**	**0.012**	**Yes**	**0.965**	**E**	**0.005**	**Yes**
	Devonshire Street	MID	0.648	B	0.660	B	0.012	No	0.713	C	0.725	C	0.012	No	0.729	C	0.016	---
		PM	**0.944**	**E**	**0.957**	**E**	**0.013**	**Yes**	**1.026**	**F**	**1.038**	**F**	**0.012**	**Yes**	**1.035**	**F**	**0.009**	**Yes**
55	Lemona Avenue/	AM	0.477	A	0.488	A	0.011	No	0.518	A	0.529	A	0.011	No	0.523	A	0.005	---
	Devonshire Street	MID	0.181	A	0.193	A	0.012	No	0.201	A	0.213	A	0.012	No	0.216	A	0.015	---
		PM	0.419	A	0.430	A	0.011	No	0.449	A	0.461	A	0.012	No	0.457	A	0.008	---
56	Woodman Avenue/	**AM**	**0.986**	**E**	**0.998**	**E**	**0.012**	**Yes**	**1.051**	**F**	**1.064**	**F**	**0.013**	**Yes**	**1.056**	**F**	**0.005**	**Yes**
	Devonshire Street	MID	0.354	A	0.366	A	0.012	No	0.382	A	0.395	A	0.013	No	0.398	A	0.016	---
		PM	0.773	C	0.786	C	0.013	No	0.822	D	0.835	D	0.013	No	0.831	D	0.009	---

V/C: volume-to-capacity ratio; LOS: level of service; I: Interstate; SB: southbound; NB: northbound; SR: State Route; EB: eastbound

[a] According to LADOT's "Transportation Impact Study Guidelines", December 2016, a transportation impact on an intersection shall be deemed significant in accordance with the following table:

Final v/c	LOS	Project Related Increase in v/c
>0.700–0.800	C	equal to or greater than 0.040
>0.800–0.900	D	equal to or greater than 0.020
>0.900	E/F	equal to or greater than 0.010

Source: LLG 2017. (Appendix F)

TABLE 3-26
SUMMARY OF INTERSECTION CAPACITY ANALYSIS – ALTERNATIVE 2
(BOULEVARD PIT AND SUNSHINE CANYON LANDFILL)

			[1]		[2]				[3]		[4]				[5]			
No.	Intersection	Peak Hour	Year 2017 Existing V/C	Year 2017 Existing LOS	Year 2017 Existing with Project V/C	Year 2017 Existing with Project LOS	Change V/C [(2)-(1)]	Significant Impact? [a]	Year 2020 Cumulative without Project V/C	Year 2020 Cumulative without Project LOS	Year 2020 Cumulative with Project & without MM TRA-1 V/C	Year 2020 Cumulative with Project & without MM TRA-1 LOS	Change V/C [(4)-(3)]	Significant. Impact? [a]	Year 2020 with Project and MM TRA-1 V/C	Year 2020 with Project and MM TRA-1 LOS	Change V/C [(5)-(3)]	Mitigated ?
1	Arleta Avenue/	AM	0.584	A	0.624	B	0.040	No	0.629	B	0.669	B	0.040	No	0.655	B	0.026	---
	Devonshire Street	MID	0.242	A	0.273	A	0.031	No	0.267	A	0.298	A	0.031	No	0.298	A	0.031	---
		PM	0.516	A	0.551	A	0.035	No	0.551	A	0.586	A	0.035	No	0.593	A	0.042	---
2	Arleta Avenue/	AM	0.634	B	0.672	B	0.038	No	0.667	B	0.705	C	0.038	No	0.692	B	0.025	---
	Paxton Street	MID	0.337	A	0.375	A	0.038	No	0.359	A	0.397	A	0.038	No	0.397	A	0.038	---
		PM	0.614	B	0.653	B	0.039	No	0.648	B	0.686	B	0.038	No	0.693	B	0.045	---
3	I-5 Freeway SB Ramps-Sharp Avenue/	AM	0.673	B	0.703	C	0.030	No	0.708	C	0.737	C	0.029	No	0.728	C	0.020	---
	Paxton Street	MID	0.317	A	0.356	A	0.039	No	0.336	A	0.375	A	0.039	No	0.374	A	0.038	---
		PM	0.530	A	0.538	A	0.008	No	0.562	A	0.568	A	0.006	No	0.572	A	0.010	---
4	I-5 Freeway NB Ramps-Remick Avenue/	AM	0.600	A	0.618	B	0.018	No	0.634	B	0.653	B	0.019	No	0.646	B	0.012	---
	Paxton Street	MID	0.376	A	0.393	A	0.017	No	0.398	A	0.416	A	0.018	No	0.416	A	0.018	---
		PM	0.597	A	0.614	B	0.017	No	0.631	B	0.648	B	0.017	No	0.652	B	0.021	---
5	Laurel Canyon Boulevard/	AM	0.816	D	0.816	D	0.000	No	0.932	E	0.932	E	0.000	No	0.932	E	0.000	---
	Branford Street	MID	0.414	A	0.424	A	0.010	No	0.458	A	0.467	A	0.009	No	0.466	A	0.008	---
		PM	0.735	C	0.744	C	0.009	No	0.812	D	0.821	D	0.009	No	0.821	D	0.009	---
6	San Fernando Road/	**AM**	0.756	C	0.781	C	0.025	No	**0.907**	**E**	**0.932**	**E**	**0.025**	**Yes**	**0.923**	**E**	**0.016**	**No**
	Branford Street	MID	0.525	A	0.537	A	0.012	No	0.594	A	0.606	B	0.012	No	0.607	B	0.013	---
		PM	0.648	B	0.660	B	0.012	No	0.730	C	0.742	C	0.012	No	0.748	C	0.018	---
7	Laurel Canyon Boulevard/	AM	0.802	D	0.802	D	0.000	No	0.903	E	0.903	E	0.000	No	0.903	E	0.000	---
	I-5 Freeway NB Off-Ramp-Jerome Street	MID	0.351	A	0.351	A	0.000	No	0.385	A	0.385	A	0.000	No	0.385	A	0.000	---
		PM	0.674	B	0.685	B	0.011	No	0.728	C	0.738	C	0.010	No	0.738	C	0.010	---
8	Laurel Canyon Boulevard/	AM	0.839	D	0.839	D	0.000	No	0.911	E	0.911	E	0.000	No	0.911	E	0.000	---
	Sheldon Street	MID	0.369	A	0.369	A	0.000	No	0.415	A	0.415	A	0.000	No	0.415	A	0.000	---
		PM	0.645	B	0.654	B	0.009	No	0.722	C	0.731	C	0.009	No	0.731	C	0.009	---
9	Laurel Canyon Boulevard/	AM	0.814	D	0.814	D	0.000	No	0.907	E	0.907	E	0.000	No	0.907	E	0.000	---
	I-5 Freeway SB Ramps	MID	0.488	A	0.488	A	0.000	No	0.531	A	0.531	A	0.000	No	0.531	A	0.000	---
		PM	0.829	D	0.834	D	0.005	No	0.898	D	0.902	E	0.004	No	0.901	E	0.003	---
10	I-5 Freeway NB On-Ramp-Rincon	AM	0.704	C	0.704	C	0.000	No	0.859	D	0.859	D	0.000	No	0.859	D	0.000	---
	Avenue/Sheldon Street	MID	0.500	A	0.500	A	0.000	No	0.539	A	0.539	A	0.000	No	0.539	A	0.000	---
		PM	0.662	B	0.662	B	0.000	No	0.727	C	0.727	C	0.000	No	0.727	C	0.000	---
11	Haddon Avenue/	AM	0.483	A	0.483	A	0.000	No	0.564	A	0.564	A	0.000	No	0.564	A	0.000	---
	Sheldon Street	MID	0.183	A	0.183	A	0.000	No	0.206	A	0.206	A	0.000	No	0.206	A	0.000	---
		PM	0.354	A	0.354	A	0.000	No	0.392	A	0.392	A	0.000	No	0.392	A	0.000	---
12	Telfair Avenue/	AM	0.551	A	0.551	A	0.000	No	0.771	C	0.771	C	0.000	No	0.771	C	0.000	---
	Sheldon Street	MID	0.170	A	0.170	A	0.000	No	0.193	A	0.193	A	0.000	No	0.193	A	0.000	---
		PM	0.347	A	0.347	A	0.000	No	0.409	A	0.409	A	0.000	No	0.409	A	0.000	---
13	San Fernando Road/	AM	0.761	C	0.761	C	0.000	No	0.882	D	0.882	D	0.000	No	0.882	D	0.000	---
	Sheldon Street	MID	0.427	A	0.427	A	0.000	No	0.486	A	0.486	A	0.000	No	0.486	A	0.000	---
		PM	0.679	B	0.679	B	0.000	No	0.757	C	0.757	C	0.000	No	0.757	C	0.000	---

TABLE 3-26
SUMMARY OF INTERSECTION CAPACITY ANALYSIS – ALTERNATIVE 2
(BOULEVARD PIT AND SUNSHINE CANYON LANDFILL)

			[1]		[2]				[3]		[4]				[5]			
No.	Intersection	Peak Hour	Year 2017 Existing V/C	Year 2017 Existing LOS	Year 2017 Existing with Project V/C	Year 2017 Existing with Project LOS	Change V/C [(2)-(1)]	Significant Impact? [a]	Year 2020 Cumulative without Project V/C	Year 2020 Cumulative without Project LOS	Year 2020 Cumulative with Project & without MM TRA-1 V/C	Year 2020 Cumulative with Project & without MM TRA-1 LOS	Change V/C [(4)-(3)]	Significant. Impact? [a]	Year 2020 with Project and MM TRA-1 V/C	Year 2020 with Project and MM TRA-1 LOS	Change V/C [(5)-(3)]	Mitigated ?
14	Glenoaks Boulevard/	AM	0.801	D	0.801	D	0.000	No	0.931	E	0.931	E	0.000	No	0.931	E	0.000	---
	Sheldon Street	MID	0.439	A	0.439	A	0.000	No	0.557	A	0.557	A	0.000	No	0.557	A	0.000	---
		PM	0.613	B	0.613	B	0.000	No	0.741	C	0.741	C	0.000	No	0.741	C	0.000	---
15	Laurel Canyon Boulevard/	AM	0.815	D	0.821	D	0.006	No	0.888	D	0.894	D	0.006	No	0.892	D	0.004	---
	Paxton Street	MID	0.463	A	0.478	A	0.015	No	0.500	A	0.515	A	0.015	No	0.515	A	0.015	---
		PM	0.903	E	0.908	E	0.005	No	0.967	E	0.973	E	0.006	No	0.976	E	0.009	---
16	Haddon Avenue/	AM	0.514	A	0.521	A	0.007	No	0.538	A	0.546	A	0.008	No	0.543	A	0.005	---
	Paxton Street	MID	0.292	A	0.299	A	0.007	No	0.307	A	0.313	A	0.006	No	0.314	A	0.007	---
		PM	0.579	A	0.586	A	0.007	No	0.607	B	0.613	B	0.006	No	0.617	B	0.010	---
17	Kewen Avenue/	AM	0.533	A	0.540	A	0.007	No	0.558	A	0.566	A	0.008	No	0.563	A	0.005	---
	Paxton Street	MID	0.284	A	0.292	A	0.008	No	0.299	A	0.306	A	0.007	No	0.307	A	0.008	---
		PM	0.543	A	0.550	A	0.007	No	0.570	A	0.577	A	0.007	No	0.580	A	0.010	---
18	Telfair Avenue/	AM	0.401	A	0.407	A	0.006	No	0.426	A	0.431	A	0.005	No	0.429	A	0.003	---
	Paxton Street	MID	0.185	A	0.200	A	0.015	No	0.201	A	0.215	A	0.014	No	0.215	A	0.014	---
		PM	0.380	A	0.385	A	0.005	No	0.403	A	0.408	A	0.005	No	0.411	A	0.008	---
19	San Fernando Road/	AM	0.869	D	0.869	D	0.000	No	0.949	E	0.949	E	0.000	No	0.949	E	0.000	---
	Paxton Street	MID	0.712	C	0.712	C	0.000	No	0.768	C	0.768	C	0.000	No	0.768	C	0.000	---
		PM	0.845	D	0.845	D	0.000	No	0.915	E	0.915	E	0.000	No	0.915	E	0.000	---
20	San Fernando Road/	AM	0.562	A	0.567	A	0.005	No	0.629	B	0.634	B	0.005	No	0.632	B	0.003	---
	SR-118 Freeway EB Ramps	MID	0.404	A	0.409	A	0.005	No	0.447	A	0.453	A	0.006	No	0.453	A	0.006	---
		PM	0.527	A	0.533	A	0.006	No	0.583	A	0.588	A	0.005	No	0.591	A	0.008	---
21	San Fernando Road/	AM	0.797	C	0.803	D	0.006	No	0.916	E	0.923	E	0.007	No	0.920	E	0.004	---
	Van Nuys Boulevard	MID	0.493	A	0.499	A	0.006	No	0.544	A	0.550	A	0.006	No	0.550	A	0.006	---
		PM	0.681	B	0.688	B	0.007	No	0.761	C	0.767	C	0.006	No	0.770	C	0.009	---
22	San Fernando Road/	AM	0.820	D	0.826	D	0.006	No	0.938	E	0.944	E	0.006	No	0.941	E	0.003	---
	Pierce Street	MID	0.393	A	0.399	A	0.006	No	0.435	A	0.442	A	0.007	No	0.442	A	0.007	---
		PM	0.707	C	0.714	C	0.007	No	0.803	D	0.808	D	0.005	No	0.811	D	0.008	---
23	San Fernando Road/	AM	0.594	A	0.599	A	0.005	No	0.679	B	0.685	B	0.006	No	0.682	B	0.003	---
	Terra Bella Street	MID	0.259	A	0.265	A	0.006	No	0.294	A	0.299	A	0.005	No	0.300	A	0.006	---
		PM	0.421	A	0.427	A	0.006	No	0.475	A	0.480	A	0.005	No	0.483	A	0.008	---
24	San Fernando Road/	AM	0.835	D	0.841	D	0.006	No	0.940	E	0.946	E	0.006	No	0.944	E	0.004	---
	Osborne Street	MID	0.627	B	0.633	B	0.006	No	0.691	B	0.698	B	0.007	No	0.698	B	0.007	---
		PM	0.842	D	0.848	D	0.006	No	0.931	E	0.936	E	0.005	No	0.939	E	0.008	---
25	San Fernando Road/	AM	0.722	C	0.722	C	0.000	No	0.793	C	0.793	C	0.000	No	0.793	C	0.000	---
	SR-118 Freeway WB Ramps	MID	0.677	B	0.677	B	0.000	No	0.732	C	0.732	C	0.000	No	0.732	C	0.000	---
		PM	0.808	D	0.808	D	0.000	No	0.865	D	0.865	D	0.000	No	0.865	D	0.000	---
26	Arleta Avenue/	AM	0.896	D	0.897	D	0.001	No	0.972	E	0.973	E	0.001	No	0.973	E	0.001	---
	Van Nuys Boulevard	MID	0.502	A	0.502	A	0.000	No	0.544	A	0.545	A	0.001	No	0.545	A	0.001	---
		PM	0.893	D	0.893	D	0.000	No	0.963	E	0.964	E	0.001	No	0.964	E	0.001	---

TABLE 3-26
SUMMARY OF INTERSECTION CAPACITY ANALYSIS – ALTERNATIVE 2
(BOULEVARD PIT AND SUNSHINE CANYON LANDFILL)

			[1]		[2]				[3]		[4]				[5]			
No.	Intersection	Peak Hour	Year 2017 Existing V/C	Year 2017 Existing LOS	Year 2017 Existing with Project V/C	Year 2017 Existing with Project LOS	Change V/C [(2)-(1)]	Significant Impact? [a]	Year 2020 Cumulative without Project V/C	Year 2020 Cumulative without Project LOS	Year 2020 Cumulative with Project & without MM TRA-1 V/C	Year 2020 Cumulative with Project & without MM TRA-1 LOS	Change V/C [(4)-(3)]	Significant. Impact? [a]	Year 2020 with Project and MM TRA-1 V/C	Year 2020 with Project and MM TRA-1 LOS	Change V/C [(5)-(3)]	Mitigated ?
27	Bartee Avenue/	AM	0.515	A	0.515	A	0.000	No	0.561	A	0.561	A	0.000	No	0.561	A	0.000	---
	Van Nuys Boulevard	MID	0.335	A	0.335	A	0.000	No	0.363	A	0.363	A	0.000	No	0.363	A	0.000	---
		PM	0.447	A	0.447	A	0.000	No	0.484	A	0.484	A	0.000	No	0.484	A	0.000	---
28	I-5 Freeway NB Off-Ramp/	AM	0.705	C	0.705	C	0.000	No	0.773	C	0.773	C	0.000	No	0.773	C	0.000	---
	Van Nuys Boulevard	MID	0.533	A	0.533	A	0.000	No	0.570	A	0.570	A	0.000	No	0.570	A	0.000	---
		PM	0.645	B	0.645	B	0.000	No	0.698	B	0.698	B	0.000	No	0.698	B	0.000	---
29	Glenoaks Boulevard/	AM	1.032	F	1.032	F	0.000	No	1.200	F	1.200	F	0.000	No	1.200	F	0.000	---
	Osborne Street	MID	0.415	A	0.415	A	0.000	No	0.542	A	0.542	A	0.000	No	0.542	A	0.000	---
		PM	0.818	D	0.818	D	0.000	No	0.971	E	0.980	E	0.009	No	0.979	E	0.008	---
30	Dronfield Avenue/	AM	0.527	A	0.527	A	0.000	No	0.614	B	0.614	B	0.000	No	0.614	B	0.000	---
	Osborne Street	MID	0.233	A	0.233	A	0.000	No	0.293	A	0.293	A	0.000	No	0.293	A	0.000	---
		PM	0.447	A	0.456	A	0.009	No	0.517	A	0.525	A	0.008	No	0.525	A	0.008	---
31	Foothill Boulevard/	AM	0.711	C	0.711	C	0.000	No	0.875	D	0.875	D	0.000	No	0.875	D	0.000	---
	Osborne Street-Driveway	MID	0.278	A	0.278	A	0.000	No	0.393	A	0.393	A	0.000	No	0.393	A	0.000	---
		PM	0.507	A	0.507	A	0.000	No	0.635	B	0.635	B	0.000	No	0.635	B	0.000	---
32	Foothill Boulevard/	AM	0.585	A	0.594	A	0.009	No	0.684	B	0.693	B	0.009	No	0.690	B	0.006	---
	I-210 Freeway EB Ramps	MID	0.303	A	0.311	A	0.008	No	0.390	A	0.395	A	0.005	No	0.394	A	0.004	---
		PM	0.437	A	0.446	A	0.009	No	0.527	A	0.536	A	0.009	No	0.536	A	0.009	---
33	Foothill Boulevard/	AM	0.493	A	0.510	A	0.017	No	0.596	A	0.613	B	0.017	No	0.608	B	0.012	---
	I-210 Freeway WB Ramps	MID	0.247	A	0.264	A	0.017	No	0.332	A	0.349	A	0.017	No	0.349	A	0.017	---
		PM	0.387	A	0.405	A	0.018	No	0.480	A	0.497	A	0.017	No	0.497	A	0.017	---
34	Glenoaks Boulevard/	AM	0.587	A	0.587	A	0.000	No	0.672	B	0.672	B	0.000	No	0.672	B	0.000	---
	Montague Street	MID	0.235	A	0.235	A	0.000	No	0.299	A	0.299	A	0.000	No	0.299	A	0.000	---
		PM	0.569	A	0.578	A	0.009	No	0.647	B	0.656	B	0.009	No	0.655	B	0.008	---
35	Glenoaks Boulevard/	AM	0.576	A	0.593	A	0.017	No	0.671	B	0.689	B	0.018	No	0.683	B	0.012	---
	Branford Street	MID	0.279	A	0.296	A	0.017	No	0.360	A	0.377	A	0.017	No	0.377	A	0.017	---
		PM	0.662	B	0.679	B	0.017	No	0.743	C	0.761	C	0.018	No	0.760	C	0.017	---
36	Glenoaks Boulevard/	AM	0.479	A	0.479	A	0.000	No	0.569	A	0.569	A	0.000	No	0.569	A	0.000	---
	Truesdale Street	MID	0.184	A	0.184	A	0.000	No	0.253	A	0.253	A	0.000	No	0.253	A	0.000	---
		PM	0.473	A	0.473	A	0.000	No	0.554	A	0.554	A	0.000	No	0.554	A	0.000	---
37	Glenoaks Boulevard/	AM	0.427	A	0.427	A	0.000	No	0.526	A	0.526	A	0.000	No	0.526	A	0.000	---
	Peoria Street	MID	0.248	A	0.248	A	0.000	No	0.359	A	0.359	A	0.000	No	0.359	A	0.000	---
		PM	0.452	A	0.452	A	0.000	No	0.572	A	0.572	A	0.000	No	0.572	A	0.000	---
38	Glenoaks Boulevard/	AM	0.435	A	0.435	A	0.000	No	0.583	A	0.583	A	0.000	No	0.583	A	0.000	---
	Pendleton Street	MID	0.330	A	0.330	A	0.000	No	0.469	A	0.469	A	0.000	No	0.469	A	0.000	---
		PM	0.497	A	0.497	A	0.000	No	0.631	B	0.631	B	0.000	No	0.631	B	0.000	---
39	San Fernando Road (East)/	AM	0.676	B	0.676	B	0.000	No	0.743	C	0.743	C	0.000	No	0.743	C	0.000	---
	Tuxford Street	MID	0.547	A	0.547	A	0.000	No	0.613	B	0.613	B	0.000	No	0.613	B	0.000	---
		PM	0.624	B	0.624	B	0.000	No	0.694	B	0.694	B	0.000	No	0.694	B	0.000	---

TABLE 3-26
SUMMARY OF INTERSECTION CAPACITY ANALYSIS – ALTERNATIVE 2
(BOULEVARD PIT AND SUNSHINE CANYON LANDFILL)

			[1]		[2]				[3]		[4]				[5]			
No.	Intersection	Peak Hour	Year 2017 Existing V/C	Year 2017 Existing LOS	Year 2017 Existing with Project V/C	Year 2017 Existing with Project LOS	Change V/C [(2)-(1)]	Significant Impact? [a]	Year 2020 Cumulative without Project V/C	Year 2020 Cumulative without Project LOS	Year 2020 Cumulative with Project & without MM TRA-1 V/C	Year 2020 Cumulative with Project & without MM TRA-1 LOS	Change V/C [(4)-(3)]	Significant. Impact? [a]	Year 2020 with Project and MM TRA-1 V/C	Year 2020 with Project and MM TRA-1 LOS	Change V/C [(5)-(3)]	Mitigated ?
40	Bradley Avenue/	AM	0.611	B	0.611	B	0.000	No	0.671	B	0.671	B	0.000	No	0.671	B	0.000	---
	Tuxford Street	MID	0.573	A	0.573	A	0.000	No	0.636	B	0.636	B	0.000	No	0.636	B	0.000	---
		PM	0.587	A	0.587	A	0.000	No	0.647	B	0.647	B	0.000	No	0.647	B	0.000	---
41	Glenoaks Boulevard/	AM	0.769	C	0.769	C	0.000	No	0.877	D	0.877	D	0.000	No	0.877	D	0.000	---
	Tuxford Street-La Tuna Canyon Road	MID	0.480	A	0.480	A	0.000	No	0.565	A	0.565	A	0.000	No	0.565	A	0.000	---
		PM	0.758	C	0.758	C	0.000	No	0.843	D	0.843	D	0.000	No	0.843	D	0.000	---
42	Tujunga Avenue/	AM	0.581	A	0.581	A	0.000	No	0.608	B	0.608	B	0.000	No	0.608	B	0.000	---
	Penrose Street	MID	0.535	A	0.535	A	0.000	No	0.560	A	0.560	A	0.000	No	0.560	A	0.000	---
		PM	0.658	B	0.658	B	0.000	No	0.688	B	0.688	B	0.000	No	0.688	B	0.000	---
43	San Fernando Road (West)/	AM	0.536	A	0.536	A	0.000	No	0.589	A	0.589	A	0.000	No	0.589	A	0.000	---
	Penrose Street	MID	0.443	A	0.443	A	0.000	No	0.483	A	0.483	A	0.000	No	0.483	A	0.000	---
		PM	0.595	A	0.595	A	0.000	No	0.645	B	0.645	B	0.000	No	0.645	B	0.000	---
44	San Fernando Road (East)/	AM	0.347	A	0.347	A	0.000	No	0.369	A	0.369	A	0.000	No	0.369	A	0.000	---
	Penrose Street	MID	0.381	A	0.381	A	0.000	No	0.405	A	0.405	A	0.000	No	0.405	A	0.000	---
		PM	0.376	A	0.376	A	0.000	No	0.398	A	0.398	A	0.000	No	0.398	A	0.000	---
45	I-5 Freeway SB Ramps/	AM	0.656	B	0.656	B	0.000	No	0.688	B	0.688	B	0.000	No	0.688	B	0.000	---
	Penrose Street	MID	0.745	C	0.745	C	0.000	No	0.781	C	0.781	C	0.000	No	0.781	C	0.000	---
		PM	0.710	C	0.710	C	0.000	No	0.744	C	0.744	C	0.000	No	0.744	C	0.000	---
46	San Fernando Road/	**AM**	**0.785**	**C**	**0.808**	**D**	**0.023**	**Yes**	**0.825**	**D**	**0.848**	**D**	**0.023**	**Yes**	**0.834**	**D**	**0.009**	**Yes**
	Sunshine Canyon Road	MID	0.251	A	0.274	A	0.023	No	0.268	A	0.291	A	0.023	No	0.298	A	0.030	---
		PM	0.573	A	0.573	A	0.000	No	0.604	B	0.604	B	0.000	No	0.604	B	0.000	---
47	Balboa Road/	AM	0.988	E	0.988	E	0.000	No	1.045	F	1.045	F	0.000	No	1.045	F	0.000	---
	San Fernando Road	MID	0.381	A	0.405	A	0.024	No	0.439	A	0.462	A	0.023	No	0.469	A	0.030	---
		PM	0.692	B	0.715	C	0.023	No	0.764	C	0.787	C	0.023	No	0.780	C	0.016	---
48	Sepulveda Boulevard/	AM	0.343	A	0.357	A	0.014	No	0.377	A	0.390	A	0.013	No	0.382	A	0.005	---
	San Fernando Road	MID	0.253	A	0.267	A	0.014	No	0.270	A	0.284	A	0.014	No	0.288	A	0.018	---
		PM	0.252	A	0.266	A	0.014	No	0.283	A	0.296	A	0.013	No	0.292	A	0.009	---
49	I-5 Freeway SB Ramps/	**AM**	**1.015**	**F**	**1.038**	**F**	**0.023**	**Yes**	**1.118**	**F**	**1.141**	**F**	**0.023**	**Yes**	**1.127**	**F**	**0.009**	**Yes**
	Roxford Street-Sepulveda Boulevard	MID	0.603	B	0.649	B	0.046	No	0.682	B	0.705	C	0.023	No	0.712	C	0.030	---
		PM	0.736	C	0.759	C	0.023	No	**0.823**	**D**	**0.846**	**D**	**0.023**	**Yes**	**0.839**	**D**	**0.016**	**Yes**
50	I-5 Freeway NB Off-Ramp/	**AM**	**0.965**	**E**	**0.978**	**E**	**0.013**	**Yes**	**1.053**	**F**	**1.067**	**F**	**0.014**	**Yes**	**1.058**	**F**	**0.005**	**Yes**
	Roxford Street	MID	0.776	C	0.789	C	0.013	No	0.866	D	0.880	D	0.014	No	0.884	D	0.018	---
		PM	**0.915**	**E**	**0.928**	**E**	**0.013**	**Yes**	**1.012**	**F**	**1.025**	**F**	**0.013**	**Yes**	**1.021**	**F**	**0.009**	**Yes**
51	I-5 Freeway NB Ramps-Encinitas Ave/	AM	0.795	C	0.795	C	0.000	No	0.887	D	0.887	D	0.000	No	0.887	D	0.000	---
	Roxford Street	MID	0.662	B	0.685	B	0.023	No	0.718	C	0.741	C	0.023	No	0.748	C	0.030	---
		PM	0.591	A	0.598	A	0.007	No	0.678	B	0.683	B	0.005	No	0.678	B	0.000	---
52	I-405 Freeway SB Ramps-Blucher Ave/	AM	0.912	E	0.912	E	0.000	No	0.969	E	0.969	E	0.000	No	0.969	E	0.000	---
	Devonshire Street	MID	0.363	A	0.364	A	0.001	No	0.389	A	0.390	A	0.001	No	0.390	A	0.001	---
		PM	0.576	A	0.576	A	0.000	No	0.616	B	0.616	B	0.000	No	0.616	B	0.000	---

TABLE 3-26
SUMMARY OF INTERSECTION CAPACITY ANALYSIS – ALTERNATIVE 2
(BOULEVARD PIT AND SUNSHINE CANYON LANDFILL)

			[1]		[2]				[3]		[4]				[5]			
No.	Intersection	Peak Hour	Year 2017 Existing V/C	Year 2017 Existing LOS	Year 2017 Existing with Project V/C	Year 2017 Existing with Project LOS	Change V/C [(2)-(1)]	Significant Impact? [a]	Year 2020 Cumulative without Project V/C	Year 2020 Cumulative without Project LOS	Year 2020 Cumulative with Project & without MM TRA-1 V/C	Year 2020 Cumulative with Project & without MM TRA-1 LOS	Change V/C [(4)-(3)]	Significant. Impact? [a]	Year 2020 with Project and MM TRA-1 V/C	Year 2020 with Project and MM TRA-1 LOS	Change V/C [(5)-(3)]	Mitigated ?
53	I-405 Freeway NB Ramps/	AM	0.540	A	0.551	A	0.011	No	0.592	A	0.603	B	0.011	No	0.597	A	0.005	---
	Devonshire Street	MID	0.343	A	0.343	A	0.000	No	0.380	A	0.380	A	0.000	No	0.380	A	0.000	---
		PM	0.500	A	0.511	A	0.011	No	0.548	A	0.559	A	0.011	No	0.556	A	0.008	---
54	Sepulveda Boulevard/	**AM**	0.888	D	0.900	D	0.012	No	**0.960**	**E**	**0.972**	**E**	**0.012**	**Yes**	**0.965**	**E**	**0.005**	**Yes**
	Devonshire Street	MID	0.648	B	0.660	B	0.012	No	0.713	C	0.725	C	0.012	No	0.729	C	0.016	---
		PM	**0.944**	**E**	**0.957**	**E**	**0.013**	**Yes**	**1.026**	**F**	**1.038**	**F**	**0.012**	**Yes**	**1.035**	**F**	**0.009**	**Yes**
55	Lemona Avenue/	AM	0.477	A	0.488	A	0.011	No	0.518	A	0.529	A	0.011	No	0.523	A	0.005	---
	Devonshire Street	MID	0.181	A	0.193	A	0.012	No	0.201	A	0.213	A	0.012	No	0.216	A	0.015	---
		PM	0.419	A	0.430	A	0.011	No	0.449	A	0.461	A	0.012	No	0.457	A	0.008	---
56	Woodman Avenue/	**AM**	**0.986**	**E**	**0.998**	**E**	**0.012**	**Yes**	**1.051**	**F**	**1.064**	**F**	**0.013**	**Yes**	**1.056**	**F**	**0.005**	**Yes**
	Devonshire Street	MID	0.354	A	0.366	A	0.012	No	0.382	A	0.395	A	0.013	No	0.398	A	0.016	---
		PM	0.773	C	0.786	C	0.013	No	0.822	D	0.835	D	0.013	No	0.831	D	0.009	---

V/C: volume-to-capacity ratio; LOS: level of service; I: Interstate; SB: southbound; NB: northbound; SR: State Route; EB: eastbound

[a] According to LADOT's "Transportation Impact Study Guidelines", December 2016, a transportation impact on an intersection shall be deemed significant in accordance with the following table:

Final v/c	LOS	Project Related Increase in v/c
>0.700–0.800	C	equal to or greater than 0.040
>0.800–0.900	D	equal to or greater than 0.020
>0.900	E/F	equal to or greater than 0.010

Source: LLG 2017. (Appendix F)

TABLE 3-27
SUMMARY OF INTERSECTION CAPACITY ANALYSIS – ALTERNATIVE 3
(SHELDON PIT AND SUNSHINE CANYON LANDFILL)

			[1]		[2]				[3]		[4]				[5]			
No.	Intersection	Peak Hour	Year 2017 Existing V/C	LOS	Year 2017 Existing with Project V/C	LOS	Change V/C [(2)-(1)]	Significant Impact? [a]	Year 2020 Cumulative without Project V/C	LOS	Year 2020 Cumulative with Project & without MM TRA-1 V/C	LOS	Change V/C [(4)-(3)]	Significant Impact? [a]	Year 2020 with Project and MM TRA-1 V/C	LOS	Change V/C [(5)-(3)]	Mitigated ?
1	Arleta Avenue/	AM	0.584	A	0.624	B	0.040	No	0.629	B	0.669	B	0.040	No	0.655	B	0.026	---
	Devonshire Street	MID	0.242	A	0.273	A	0.031	No	0.267	A	0.298	A	0.031	No	0.298	A	0.031	---
		PM	0.516	A	0.551	A	0.035	No	0.551	A	0.586	A	0.035	No	0.593	A	0.042	---
2	Arleta Avenue/	AM	0.634	B	0.672	B	0.038	No	0.667	B	0.705	C	0.038	No	0.692	B	0.025	---
	Paxton Street	MID	0.337	A	0.375	A	0.038	No	0.359	A	0.397	A	0.038	No	0.397	A	0.038	---
		PM	0.614	B	0.653	B	0.039	No	0.648	B	0.686	B	0.038	No	0.693	B	0.045	---
3	I-5 Freeway SB Ramps-Sharp Avenue/	AM	0.673	B	0.703	C	0.030	No	0.708	C	0.737	C	0.029	No	0.728	C	0.020	---
	Paxton Street	MID	0.317	A	0.356	A	0.039	No	0.336	A	0.375	A	0.039	No	0.374	A	0.038	---
		PM	0.530	A	0.538	A	0.008	No	0.562	A	0.568	A	0.006	No	0.572	A	0.010	---
4	I-5 Freeway NB Ramps-Remick Avenue/	AM	0.600	A	0.618	B	0.018	No	0.634	B	0.653	B	0.019	No	0.646	B	0.012	---
	Paxton Street	MID	0.376	A	0.393	A	0.017	No	0.398	A	0.416	A	0.018	No	0.416	A	0.018	---
		PM	0.597	A	0.614	B	0.017	No	0.631	B	0.648	B	0.017	No	0.652	B	0.021	---
5	Laurel Canyon Boulevard/	AM	0.816	D	0.816	D	0.000	No	0.932	E	0.932	E	0.000	No	0.932	E	0.000	---
	Branford Street	MID	0.414	A	0.414	A	0.000	No	0.458	A	0.458	A	0.000	No	0.458	A	0.000	---
		PM	0.735	C	0.735	C	0.000	No	0.812	D	0.812	D	0.000	No	0.812	D	0.000	---
6	San Fernando Road/	AM	0.756	C	0.756	C	0.000	No	0.907	E	0.907	E	0.000	No	0.907	E	0.000	---
	Branford Street	MID	0.525	A	0.549	A	0.024	No	0.594	A	0.619	B	0.025	No	0.620	B	0.026	---
		PM	0.648	B	0.672	B	0.024	No	0.730	C	0.755	C	0.025	No	0.766	C	0.036	---
7	Laurel Canyon Boulevard/	AM	0.802	D	0.802	D	0.000	No	0.903	E	0.903	E	0.000	No	0.903	E	0.000	---
	I-5 Freeway NB Off-Ramp-Jerome Street	MID	0.351	A	0.351	A	0.000	No	0.385	A	0.385	A	0.000	No	0.385	A	0.000	---
		PM	0.674	B	0.674	B	0.000	No	0.728	C	0.728	C	0.000	No	0.728	C	0.000	---
8	Laurel Canyon Boulevard/	AM	0.839	D	0.839	D	0.000	No	0.911	E	0.911	E	0.000	No	0.911	E	0.000	---
	Sheldon Street	MID	0.369	A	0.369	A	0.000	No	0.415	A	0.415	A	0.000	No	0.415	A	0.000	---
		PM	0.645	B	0.645	B	0.000	No	0.722	C	0.722	C	0.000	No	0.722	C	0.000	---
9	Laurel Canyon Boulevard/	AM	0.814	D	0.814	D	0.000	No	0.907	E	0.907	E	0.000	No	0.907	E	0.000	---
	I-5 Freeway SB Ramps	MID	0.488	A	0.488	A	0.000	No	0.531	A	0.531	A	0.000	No	0.531	A	0.000	---
		PM	0.829	D	0.829	D	0.000	No	0.898	D	0.898	D	0.000	No	0.898	D	0.000	---
10	I-5 Freeway NB On-Ramp-Rincon	AM	0.704	C	0.704	C	0.000	No	0.859	D	0.859	D	0.000	No	0.859	D	0.000	---
	Avenue/Sheldon Street	MID	0.500	A	0.500	A	0.000	No	0.539	A	0.539	A	0.000	No	0.539	A	0.000	---
		PM	0.662	B	0.662	B	0.000	No	0.727	C	0.727	C	0.000	No	0.727	C	0.000	---
11	Haddon Avenue/	AM	0.483	A	0.483	A	0.000	No	0.564	A	0.564	A	0.000	No	0.564	A	0.000	---
	Sheldon Street	MID	0.183	A	0.183	A	0.000	No	0.206	A	0.206	A	0.000	No	0.206	A	0.000	---
		PM	0.354	A	0.354	A	0.000	No	0.392	A	0.392	A	0.000	No	0.392	A	0.000	---
12	Telfair Avenue/	AM	0.551	A	0.551	A	0.000	No	0.771	C	0.771	C	0.000	No	0.771	C	0.000	---
	Sheldon Street	MID	0.170	A	0.170	A	0.000	No	0.193	A	0.193	A	0.000	No	0.193	A	0.000	---
		PM	0.347	A	0.347	A	0.000	No	0.409	A	0.409	A	0.000	No	0.409	A	0.000	---
13	San Fernando Road/	AM	0.761	C	0.761	C	0.000	No	0.882	D	0.882	D	0.000	No	0.882	D	0.000	---
	Sheldon Street	MID	0.427	A	0.427	A	0.000	No	0.486	A	0.486	A	0.000	No	0.486	A	0.000	---
		PM	0.679	B	0.679	B	0.000	No	0.757	C	0.757	C	0.000	No	0.757	C	0.000	---

TABLE 3-27
SUMMARY OF INTERSECTION CAPACITY ANALYSIS – ALTERNATIVE 3
(SHELDON PIT AND SUNSHINE CANYON LANDFILL)

			[1]		[2]				[3]		[4]				[5]			
No.	Intersection	Peak Hour	Year 2017 Existing V/C	LOS	Year 2017 Existing with Project V/C	LOS	Change V/C [(2)-(1)]	Significant Impact? [a]	Year 2020 Cumulative without Project V/C	LOS	Year 2020 Cumulative with Project & without MM TRA-1 V/C	LOS	Change V/C [(4)-(3)]	Significant Impact? [a]	Year 2020 with Project and MM TRA-1 V/C	LOS	Change V/C [(5)-(3)]	Mitigated ?
14	Glenoaks Boulevard/	**AM**	0.801	D	0.815	D	0.014	No	**0.931**	**E**	**0.945**	**E**	**0.014**	**Yes**	**0.940**	**E**	**0.009**	**Yes**
	Sheldon Street	MID	0.439	A	0.454	A	0.015	No	0.557	A	0.571	A	0.014	No	0.571	A	0.014	---
		PM	0.613	B	0.627	B	0.014	No	0.741	C	0.755	C	0.014	No	0.757	C	0.016	---
15	Laurel Canyon Boulevard/	AM	0.815	D	0.821	D	0.006	No	0.888	D	0.894	D	0.006	No	0.892	D	0.004	---
	Paxton Street	MID	0.463	A	0.478	A	0.015	No	0.500	A	0.515	A	0.015	No	0.515	A	0.015	---
		PM	0.903	E	0.908	E	0.005	No	0.967	E	0.973	E	0.006	No	0.976	E	0.009	---
16	Haddon Avenue/	AM	0.514	A	0.521	A	0.007	No	0.538	A	0.546	A	0.008	No	0.543	A	0.005	---
	Paxton Street	MID	0.292	A	0.299	A	0.007	No	0.307	A	0.313	A	0.006	No	0.314	A	0.007	---
		PM	0.579	A	0.586	A	0.007	No	0.607	B	0.613	B	0.006	No	0.617	B	0.010	---
17	Kewen Avenue/	AM	0.533	A	0.540	A	0.007	No	0.558	A	0.566	A	0.008	No	0.563	A	0.005	---
	Paxton Street	MID	0.284	A	0.292	A	0.008	No	0.299	A	0.306	A	0.007	No	0.307	A	0.008	---
		PM	0.543	A	0.550	A	0.007	No	0.570	A	0.577	A	0.007	No	0.580	A	0.010	---
18	Telfair Avenue/	AM	0.401	A	0.407	A	0.006	No	0.426	A	0.431	A	0.005	No	0.429	A	0.003	---
	Paxton Street	MID	0.185	A	0.200	A	0.015	No	0.201	A	0.215	A	0.014	No	0.215	A	0.014	---
		PM	0.380	A	0.385	A	0.005	No	0.403	A	0.408	A	0.005	No	0.411	A	0.008	---
19	San Fernando Road/	AM	0.869	D	0.869	D	0.000	No	0.949	E	0.949	E	0.000	No	0.949	E	0.000	---
	Paxton Street	MID	0.712	C	0.712	C	0.000	No	0.768	C	0.768	C	0.000	No	0.768	C	0.000	---
		PM	0.845	D	0.845	D	0.000	No	0.915	E	0.915	E	0.000	No	0.915	E	0.000	---
20	San Fernando Road/	AM	0.562	A	0.567	A	0.005	No	0.629	B	0.634	B	0.005	No	0.632	B	0.003	---
	SR-118 Freeway EB Ramps	MID	0.404	A	0.409	A	0.005	No	0.447	A	0.453	A	0.006	No	0.453	A	0.006	---
		PM	0.527	A	0.533	A	0.006	No	0.583	A	0.588	A	0.005	No	0.591	A	0.008	---
21	San Fernando Road/	AM	0.797	C	0.803	D	0.006	No	0.916	E	0.923	E	0.007	No	0.920	E	0.004	---
	Van Nuys Boulevard	MID	0.493	A	0.499	A	0.006	No	0.544	A	0.550	A	0.006	No	0.550	A	0.006	---
		PM	0.681	B	0.688	B	0.007	No	0.761	C	0.767	C	0.006	No	0.770	C	0.009	---
22	San Fernando Road/	AM	0.820	D	0.826	D	0.006	No	0.938	E	0.944	E	0.006	No	0.941	E	0.003	---
	Pierce Street	MID	0.393	A	0.399	A	0.006	No	0.435	A	0.442	A	0.007	No	0.442	A	0.007	---
		PM	0.707	C	0.714	C	0.007	No	0.803	D	0.808	D	0.005	No	0.811	D	0.008	---
23	San Fernando Road/	AM	0.594	A	0.599	A	0.005	No	0.679	B	0.685	B	0.006	No	0.682	B	0.003	---
	Terra Bella Street	MID	0.259	A	0.265	A	0.006	No	0.294	A	0.299	A	0.005	No	0.300	A	0.006	---
		PM	0.421	A	0.427	A	0.006	No	0.475	A	0.480	A	0.005	No	0.483	A	0.008	---
24	San Fernando Road/	AM	0.835	D	0.841	D	0.006	No	0.940	E	0.946	E	0.006	No	0.944	E	0.004	---
	Osborne Street	MID	0.627	B	0.633	B	0.006	No	0.691	B	0.698	B	0.007	No	0.698	B	0.007	---
		PM	0.842	D	0.848	D	0.006	No	0.931	E	0.936	E	0.005	No	0.939	E	0.008	---
25	San Fernando Road/	AM	0.722	C	0.722	C	0.000	No	0.793	C	0.793	C	0.000	No	0.793	C	0.000	---
	SR-118 Freeway WB Ramps	MID	0.677	B	0.677	B	0.000	No	0.732	C	0.732	C	0.000	No	0.732	C	0.000	---
		PM	0.808	D	0.808	D	0.000	No	0.865	D	0.865	D	0.000	No	0.865	D	0.000	---
26	Arleta Avenue/	AM	0.896	D	0.897	D	0.001	No	0.972	E	0.973	E	0.001	No	0.973	E	0.001	---
	Van Nuys Boulevard	MID	0.502	A	0.502	A	0.000	No	0.544	A	0.545	A	0.001	No	0.545	A	0.001	---
		PM	0.893	D	0.893	D	0.000	No	0.963	E	0.964	E	0.001	No	0.964	E	0.001	---

TABLE 3-27
SUMMARY OF INTERSECTION CAPACITY ANALYSIS – ALTERNATIVE 3
(SHELDON PIT AND SUNSHINE CANYON LANDFILL)

			[1]		[2]				[3]		[4]				[5]			
No.	Intersection	Peak Hour	Year 2017 Existing V/C	Year 2017 Existing LOS	Year 2017 Existing with Project V/C	Year 2017 Existing with Project LOS	Change V/C [(2)-(1)]	Significant Impact? [a]	Year 2020 Cumulative without Project V/C	Year 2020 Cumulative without Project LOS	Year 2020 Cumulative with Project & without MM TRA-1 V/C	Year 2020 Cumulative with Project & without MM TRA-1 LOS	Change V/C [(4)-(3)]	Significant Impact? [a]	Year 2020 with Project and MM TRA-1 V/C	Year 2020 with Project and MM TRA-1 LOS	Change V/C [(5)-(3)]	Mitigated ?
27	Bartee Avenue/	AM	0.515	A	0.515	A	0.000	No	0.561	A	0.561	A	0.000	No	0.561	A	0.000	---
	Van Nuys Boulevard	MID	0.335	A	0.335	A	0.000	No	0.363	A	0.363	A	0.000	No	0.363	A	0.000	---
		PM	0.447	A	0.447	A	0.000	No	0.484	A	0.484	A	0.000	No	0.484	A	0.000	---
28	I-5 Freeway NB Off-Ramp/	AM	0.705	C	0.705	C	0.000	No	0.773	C	0.773	C	0.000	No	0.773	C	0.000	---
	Van Nuys Boulevard	MID	0.533	A	0.533	A	0.000	No	0.570	A	0.570	A	0.000	No	0.570	A	0.000	---
		PM	0.645	B	0.645	B	0.000	No	0.698	B	0.698	B	0.000	No	0.698	B	0.000	---
29	Glenoaks Boulevard/	AM	1.032	F	1.032	F	0.000	No	1.200	F	1.200	F	0.000	No	1.200	F	0.000	---
	Osborne Street	MID	0.415	A	0.415	A	0.000	No	0.542	A	0.542	A	0.000	No	0.542	A	0.000	---
		PM	0.818	D	0.818	D	0.000	No	0.971	E	0.980	E	0.009	No	0.979	E	0.008	---
30	Dronfield Avenue/	AM	0.527	A	0.527	A	0.000	No	0.614	B	0.614	B	0.000	No	0.614	B	0.000	---
	Osborne Street	MID	0.233	A	0.233	A	0.000	No	0.293	A	0.293	A	0.000	No	0.293	A	0.000	---
		PM	0.447	A	0.456	A	0.009	No	0.517	A	0.525	A	0.008	No	0.525	A	0.008	---
31	Foothill Boulevard/	AM	0.711	C	0.711	C	0.000	No	0.875	D	0.875	D	0.000	No	0.875	D	0.000	---
	Osborne Street-Driveway	MID	0.278	A	0.278	A	0.000	No	0.393	A	0.393	A	0.000	No	0.393	A	0.000	---
		PM	0.507	A	0.507	A	0.000	No	0.635	B	0.635	B	0.000	No	0.635	B	0.000	---
32	Foothill Boulevard/	AM	0.585	A	0.594	A	0.009	No	0.684	B	0.693	B	0.009	No	0.690	B	0.006	---
	I-210 Freeway EB Ramps	MID	0.303	A	0.311	A	0.008	No	0.390	A	0.395	A	0.005	No	0.394	A	0.004	---
		PM	0.437	A	0.446	A	0.009	No	0.527	A	0.536	A	0.009	No	0.536	A	0.009	---
33	Foothill Boulevard/	AM	0.493	A	0.510	A	0.017	No	0.596	A	0.613	B	0.017	No	0.608	B	0.012	---
	I-210 Freeway WB Ramps	MID	0.247	A	0.264	A	0.017	No	0.332	A	0.349	A	0.017	No	0.349	A	0.017	---
		PM	0.387	A	0.405	A	0.018	No	0.480	A	0.497	A	0.017	No	0.497	A	0.017	---
34	Glenoaks Boulevard/	AM	0.587	A	0.587	A	0.000	No	0.672	B	0.672	B	0.000	No	0.672	B	0.000	---
	Montague Street	MID	0.235	A	0.235	A	0.000	No	0.299	A	0.299	A	0.000	No	0.299	A	0.000	---
		PM	0.569	A	0.578	A	0.009	No	0.647	B	0.656	B	0.009	No	0.655	B	0.008	---
35	Glenoaks Boulevard/	AM	0.576	A	0.587	A	0.011	No	0.671	B	0.683	B	0.012	No	0.678	B	0.007	---
	Branford Street	MID	0.279	A	0.290	A	0.011	No	0.360	A	0.371	A	0.011	No	0.372	A	0.012	---
		PM	0.662	B	0.671	B	0.009	No	0.743	C	0.752	C	0.009	No	0.752	C	0.009	---
36	Glenoaks Boulevard/	AM	0.479	A	0.485	A	0.006	No	0.569	A	0.575	A	0.006	No	0.572	A	0.003	---
	Truesdale Street	MID	0.184	A	0.199	A	0.015	No	0.253	A	0.265	A	0.012	No	0.265	A	0.012	---
		PM	0.473	A	0.488	A	0.015	No	0.554	A	0.568	A	0.014	No	0.571	A	0.017	---
37	Glenoaks Boulevard/	AM	0.427	A	0.427	A	0.000	No	0.526	A	0.526	A	0.000	No	0.526	A	0.000	---
	Peoria Street	MID	0.248	A	0.255	A	0.007	No	0.359	A	0.368	A	0.009	No	0.368	A	0.009	---
		PM	0.452	A	0.461	A	0.009	No	0.572	A	0.581	A	0.009	No	0.581	A	0.009	---
38	Glenoaks Boulevard/	AM	0.435	A	0.435	A	0.000	No	0.583	A	0.583	A	0.000	No	0.583	A	0.000	---
	Pendleton Street	MID	0.330	A	0.339	A	0.009	No	0.469	A	0.469	A	0.000	No	0.469	A	0.000	---
		PM	0.497	A	0.505	A	0.008	No	0.631	B	0.640	B	0.009	No	0.639	B	0.008	---
39	San Fernando Road (East)/	AM	0.676	B	0.698	B	0.022	No	0.743	C	0.764	C	0.021	No	0.758	C	0.015	---
	Tuxford Street	MID	0.547	A	0.568	A	0.021	No	0.613	B	0.634	B	0.021	No	0.633	B	0.020	---
		PM	0.624	B	0.646	B	0.022	No	0.694	B	0.716	C	0.022	No	0.715	C	0.021	---

TABLE 3-27
SUMMARY OF INTERSECTION CAPACITY ANALYSIS – ALTERNATIVE 3
(SHELDON PIT AND SUNSHINE CANYON LANDFILL)

			[1]		[2]				[3]		[4]				[5]			
No.	Intersection	Peak Hour	Year 2017 Existing V/C	LOS	Year 2017 Existing with Project V/C	LOS	Change V/C [(2)-(1)]	Significant Impact? [a]	Year 2020 Cumulative without Project V/C	LOS	Year 2020 Cumulative with Project & without MM TRA-1 V/C	LOS	Change V/C [(4)-(3)]	Significant Impact? [a]	Year 2020 with Project and MM TRA-1 V/C	LOS	Change V/C [(5)-(3)]	Mitigated ?
40	Bradley Avenue/	AM	0.611	B	0.611	B	0.000	No	0.671	B	0.671	B	0.000	No	0.671	B	0.000	---
	Tuxford Street	MID	0.573	A	0.573	A	0.000	No	0.636	B	0.636	B	0.000	No	0.636	B	0.000	---
		PM	0.587	A	0.595	A	0.008	No	0.647	B	0.655	B	0.008	No	0.655	B	0.008	---
41	Glenoaks Boulevard/	AM	0.769	C	0.788	C	0.019	No	0.877	D	0.896	D	0.019	No	0.891	D	0.014	---
	Tuxford Street-La Tuna Canyon Road	MID	0.480	A	0.499	A	0.019	No	0.565	A	0.584	A	0.019	No	0.584	A	0.019	---
		PM	0.758	C	0.763	C	0.005	No	0.843	D	0.861	D	0.018	No	0.861	D	0.018	---
42	Tujunga Avenue/	AM	0.581	A	0.581	A	0.000	No	0.608	B	0.608	B	0.000	No	0.608	B	0.000	---
	Penrose Street	MID	0.535	A	0.535	A	0.000	No	0.560	A	0.560	A	0.000	No	0.560	A	0.000	---
		PM	0.658	B	0.658	B	0.000	No	0.688	B	0.688	B	0.000	No	0.688	B	0.000	---
43	San Fernando Road (West)/	AM	0.536	A	0.536	A	0.000	No	0.589	A	0.589	A	0.000	No	0.589	A	0.000	---
	Penrose Street	MID	0.443	A	0.443	A	0.000	No	0.483	A	0.483	A	0.000	No	0.483	A	0.000	---
		PM	0.595	A	0.595	A	0.000	No	0.645	B	0.645	B	0.000	No	0.645	B	0.000	---
44	San Fernando Road (East)/	AM	0.347	A	0.347	A	0.000	No	0.369	A	0.369	A	0.000	No	0.369	A	0.000	---
	Penrose Street	MID	0.381	A	0.381	A	0.000	No	0.405	A	0.405	A	0.000	No	0.405	A	0.000	---
		PM	0.376	A	0.376	A	0.000	No	0.398	A	0.398	A	0.000	No	0.398	A	0.000	---
45	I-5 Freeway SB Ramps/	AM	0.656	B	0.656	B	0.000	No	0.688	B	0.688	B	0.000	No	0.688	B	0.000	---
	Penrose Street	MID	0.745	C	0.745	C	0.000	No	0.781	C	0.781	C	0.000	No	0.781	C	0.000	---
		PM	0.710	C	0.710	C	0.000	No	0.744	C	0.744	C	0.000	No	0.744	C	0.000	---
46	San Fernando Road/	**AM**	**0.785**	**C**	**0.808**	**D**	**0.023**	**Yes**	**0.825**	**D**	**0.848**	**D**	**0.023**	**Yes**	**0.834**	**D**	**0.009**	**Yes**
	Sunshine Canyon Road	MID	0.251	A	0.274	A	0.023	No	0.268	A	0.291	A	0.023	No	0.298	A	0.030	---
		PM	0.573	A	0.573	A	0.000	No	0.604	B	0.604	B	0.000	No	0.604	B	0.000	---
47	Balboa Road/	AM	0.988	E	0.988	E	0.000	No	1.045	F	1.045	F	0.000	No	1.045	F	0.000	---
	San Fernando Road	MID	0.381	A	0.405	A	0.024	No	0.439	A	0.462	A	0.023	No	0.469	A	0.030	---
		PM	0.692	B	0.715	C	0.023	No	0.764	C	0.787	C	0.023	No	0.780	C	0.016	---
48	Sepulveda Boulevard/	AM	0.343	A	0.357	A	0.014	No	0.377	A	0.390	A	0.013	No	0.382	A	0.005	---
	San Fernando Road	MID	0.253	A	0.267	A	0.014	No	0.270	A	0.284	A	0.014	No	0.288	A	0.018	---
		PM	0.252	A	0.266	A	0.014	No	0.283	A	0.296	A	0.013	No	0.292	A	0.009	---
49	I-5 Freeway SB Ramps/	**AM**	**1.015**	**F**	**1.038**	**F**	**0.023**	**Yes**	**1.118**	**F**	**1.141**	**F**	**0.023**	**Yes**	**1.127**	**F**	**0.009**	**Yes**
	Roxford Street-Sepulveda Boulevard	MID	0.603	B	0.649	B	0.046	No	0.682	B	0.705	C	0.023	No	0.712	C	0.030	---
		PM	0.736	C	0.759	C	0.023	No	**0.823**	**D**	**0.846**	**D**	**0.023**	**Yes**	**0.839**	**D**	**0.016**	**Yes**
50	I-5 Freeway NB Off-Ramp/	**AM**	**0.965**	**E**	**0.978**	**E**	**0.013**	**Yes**	**1.053**	**F**	**1.067**	**F**	**0.014**	**Yes**	**1.058**	**F**	**0.005**	**Yes**
	Roxford Street	MID	0.776	C	0.789	C	0.013	No	0.866	D	0.880	D	0.014	No	0.884	D	0.018	---
		PM	**0.915**	**E**	**0.928**	**E**	**0.013**	**Yes**	**1.012**	**F**	**1.025**	**F**	**0.013**	**Yes**	**1.021**	**F**	**0.009**	**Yes**
51	I-5 Freeway NB Ramps-Encinitas Ave/	AM	0.795	C	0.795	C	0.000	No	0.887	D	0.887	D	0.000	No	0.887	D	0.000	---
	Roxford Street	MID	0.662	B	0.685	B	0.023	No	0.718	C	0.741	C	0.023	No	0.748	C	0.030	---
		PM	0.591	A	0.598	A	0.007	No	0.678	B	0.683	B	0.005	No	0.678	B	0.000	---
52	I-405 Freeway SB Ramps-Blucher Ave/	AM	0.912	E	0.912	E	0.000	No	0.969	E	0.969	E	0.000	No	0.969	E	0.000	---
	Devonshire Street	MID	0.363	A	0.364	A	0.001	No	0.389	A	0.390	A	0.001	No	0.390	A	0.001	---
		PM	0.576	A	0.576	A	0.000	No	0.616	B	0.616	B	0.000	No	0.616	B	0.000	---

TABLE 3-27
SUMMARY OF INTERSECTION CAPACITY ANALYSIS – ALTERNATIVE 3
(SHELDON PIT AND SUNSHINE CANYON LANDFILL)

			[1]		[2]				[3]		[4]				[5]			
No.	Intersection	Peak Hour	Year 2017 Existing V/C	Year 2017 Existing LOS	Year 2017 Existing with Project V/C	Year 2017 Existing with Project LOS	Change V/C [(2)-(1)]	Significant Impact? [a]	Year 2020 Cumulative without Project V/C	Year 2020 Cumulative without Project LOS	Year 2020 Cumulative with Project & without MM TRA-1 V/C	Year 2020 Cumulative with Project & without MM TRA-1 LOS	Change V/C [(4)-(3)]	Significant Impact? [a]	Year 2020 with Project and MM TRA-1 V/C	Year 2020 with Project and MM TRA-1 LOS	Change V/C [(5)-(3)]	Mitigated ?
53	I-405 Freeway NB Ramps/	AM	0.540	A	0.551	A	0.011	No	0.592	A	0.603	B	0.011	No	0.597	A	0.005	---
	Devonshire Street	MID	0.343	A	0.343	A	0.000	No	0.380	A	0.380	A	0.000	No	0.380	A	0.000	---
		PM	0.500	A	0.511	A	0.011	No	0.548	A	0.559	A	0.011	No	0.556	A	0.008	---
54	Sepulveda Boulevard/	**AM**	0.888	D	0.900	D	0.012	No	**0.960**	**E**	**0.972**	**E**	**0.012**	**Yes**	**0.965**	**E**	**0.005**	**Yes**
	Devonshire Street	MID	0.648	B	0.660	B	0.012	No	0.713	C	0.725	C	0.012	No	0.729	C	0.016	---
		PM	**0.944**	**E**	**0.957**	**E**	**0.013**	**Yes**	**1.026**	**F**	**1.038**	**F**	**0.012**	**Yes**	**1.035**	**F**	**0.009**	**Yes**
55	Lemona Avenue/	AM	0.477	A	0.488	A	0.011	No	0.518	A	0.529	A	0.011	No	0.523	A	0.005	---
	Devonshire Street	MID	0.181	A	0.193	A	0.012	No	0.201	A	0.213	A	0.012	No	0.216	A	0.015	---
		PM	0.419	A	0.430	A	0.011	No	0.449	A	0.461	A	0.012	No	0.457	A	0.008	---
56	Woodman Avenue/	**AM**	**0.986**	**E**	**0.998**	**E**	**0.012**	**Yes**	**1.051**	**F**	**1.064**	**F**	**0.013**	**Yes**	**1.056**	**F**	**0.005**	**Yes**
	Devonshire Street	MID	0.354	A	0.366	A	0.012	No	0.382	A	0.395	A	0.013	No	0.398	A	0.016	---
		PM	0.773	C	0.786	C	0.013	No	0.822	D	0.835	D	0.013	No	0.831	D	0.009	---

V/C: volume-to-capacity ratio; LOS: level of service; I: Interstate; SB: southbound; NB: northbound; SR: State Route; EB: eastbound

[a] According to LADOT's "Transportation Impact Study Guidelines", December 2016, a transportation impact on an intersection shall be deemed significant in accordance with the following table:

Final v/c	LOS	Project Related Increase in v/c
>0.700–0.800	C	equal to or greater than 0.040
>0.800–0.900	D	equal to or greater than 0.020
>0.900	E/F	equal to or greater than 0.010

Source: LLG 2017. (Appendix F)

TABLE 3-28
SUMMARY OF INTERSECTION CAPACITY ANALYSIS – ALTERNATIVE 4
(CAL-MAT PIT AND SUNSHINE CANYON LANDFILL)

			[1]		[2]				[3]		[4]				[5]			
No.	Intersection	Peak Hour	Year 2017 Existing V/C	Year 2017 Existing LOS	Year 2017 Existing with Project V/C	Year 2017 Existing with Project LOS	Change V/C [(2)-(1)]	Significant Impact? [a]	Year 2020 Cumulative without Project V/C	Year 2020 Cumulative without Project LOS	Year 2020 Cumulative with Project & without MM TRA-1 V/C	Year 2020 Cumulative with Project & without MM TRA-1 LOS	Change V/C [(4)-(3)]	Significant Impact? [a]	Year 2020 with Project and MM TRA-1 V/C	Year 2020 with Project and MM TRA-1 LOS	Change V/C [(5)-(3)]	Mitigated ?
1	Arleta Avenue/	AM	0.584	A	0.624	B	0.040	No	0.629	B	0.669	B	0.040	No	0.655	B	0.026	---
	Devonshire Street	MID	0.242	A	0.273	A	0.031	No	0.267	A	0.298	A	0.031	No	0.298	A	0.031	---
		PM	0.516	A	0.551	A	0.035	No	0.551	A	0.586	A	0.035	No	0.593	A	0.042	---
2	Arleta Avenue/	AM	0.634	B	0.672	B	0.038	No	0.667	B	0.705	C	0.038	No	0.692	B	0.025	---
	Paxton Street	MID	0.337	A	0.375	A	0.038	No	0.359	A	0.397	A	0.038	No	0.397	A	0.038	---
		PM	0.614	B	0.653	B	0.039	No	0.648	B	0.686	B	0.038	No	0.693	B	0.045	---
3	I-5 Freeway SB Ramps-Sharp Avenue/	AM	0.673	B	0.703	C	0.030	No	0.708	C	0.737	C	0.029	No	0.728	C	0.020	---
	Paxton Street	MID	0.317	A	0.356	A	0.039	No	0.336	A	0.375	A	0.039	No	0.374	A	0.038	---
		PM	0.530	A	0.538	A	0.008	No	0.562	A	0.568	A	0.006	No	0.572	A	0.010	---
4	I-5 Freeway NB Ramps-Remick Avenue/	AM	0.600	A	0.618	B	0.018	No	0.634	B	0.653	B	0.019	No	0.646	B	0.012	---
	Paxton Street	MID	0.376	A	0.393	A	0.017	No	0.398	A	0.416	A	0.018	No	0.416	A	0.018	---
		PM	0.597	A	0.614	B	0.017	No	0.631	B	0.648	B	0.017	No	0.652	B	0.021	---
5	Laurel Canyon Boulevard/	AM	0.816	D	0.816	D	0.000	No	0.932	E	0.932	E	0.000	No	0.932	E	0.000	---
	Branford Street	MID	0.414	A	0.414	A	0.000	No	0.458	A	0.458	A	0.000	No	0.458	A	0.000	---
		PM	0.735	C	0.735	C	0.000	No	0.812	D	0.812	D	0.000	No	0.812	D	0.000	---
6	San Fernando Road/	AM	0.756	C	0.756	C	0.000	No	0.907	E	0.907	E	0.000	No	0.907	E	0.000	---
	Branford Street	MID	0.525	A	0.549	A	0.024	No	0.594	A	0.619	B	0.025	No	0.620	B	0.026	---
		PM	0.648	B	0.672	B	0.024	No	0.730	C	0.755	C	0.025	No	0.766	C	0.036	---
7	Laurel Canyon Boulevard/	AM	0.802	D	0.802	D	0.000	No	0.903	E	0.903	E	0.000	No	0.903	E	0.000	---
	I-5 Freeway NB Off-Ramp-Jerome Street	MID	0.351	A	0.351	A	0.000	No	0.385	A	0.385	A	0.000	No	0.385	A	0.000	---
		PM	0.674	B	0.674	B	0.000	No	0.728	C	0.728	C	0.000	No	0.728	C	0.000	---
8	Laurel Canyon Boulevard/	AM	0.839	D	0.839	D	0.000	No	0.911	E	0.911	E	0.000	No	0.911	E	0.000	---
	Sheldon Street	MID	0.369	A	0.369	A	0.000	No	0.415	A	0.415	A	0.000	No	0.415	A	0.000	---
		PM	0.645	B	0.645	B	0.000	No	0.722	C	0.722	C	0.000	No	0.722	C	0.000	---
9	Laurel Canyon Boulevard/	AM	0.814	D	0.814	D	0.000	No	0.907	E	0.907	E	0.000	No	0.907	E	0.000	---
	I-5 Freeway SB Ramps	MID	0.488	A	0.488	A	0.000	No	0.531	A	0.531	A	0.000	No	0.531	A	0.000	---
		PM	0.829	D	0.829	D	0.000	No	0.898	D	0.898	D	0.000	No	0.898	D	0.000	---
10	I-5 Freeway NB On-Ramp-Rincon	AM	0.704	C	0.704	C	0.000	No	0.859	D	0.859	D	0.000	No	0.859	D	0.000	---
	Avenue/Sheldon Street	MID	0.500	A	0.500	A	0.000	No	0.539	A	0.539	A	0.000	No	0.539	A	0.000	---
		PM	0.662	B	0.662	B	0.000	No	0.727	C	0.727	C	0.000	No	0.727	C	0.000	---
11	Haddon Avenue/	AM	0.483	A	0.483	A	0.000	No	0.564	A	0.564	A	0.000	No	0.564	A	0.000	---
	Sheldon Street	MID	0.183	A	0.183	A	0.000	No	0.206	A	0.206	A	0.000	No	0.206	A	0.000	---
		PM	0.354	A	0.354	A	0.000	No	0.392	A	0.392	A	0.000	No	0.392	A	0.000	---
12	Telfair Avenue/	AM	0.551	A	0.551	A	0.000	No	0.771	C	0.771	C	0.000	No	0.771	C	0.000	---
	Sheldon Street	MID	0.170	A	0.170	A	0.000	No	0.193	A	0.193	A	0.000	No	0.193	A	0.000	---
		PM	0.347	A	0.347	A	0.000	No	0.409	A	0.409	A	0.000	No	0.409	A	0.000	---
13	San Fernando Road/	AM	0.761	C	0.761	C	0.000	No	0.882	D	0.882	D	0.000	No	0.882	D	0.000	---
	Sheldon Street	MID	0.427	A	0.427	A	0.000	No	0.486	A	0.486	A	0.000	No	0.486	A	0.000	---
		PM	0.679	B	0.679	B	0.000	No	0.757	C	0.757	C	0.000	No	0.757	C	0.000	---

TABLE 3-28
SUMMARY OF INTERSECTION CAPACITY ANALYSIS – ALTERNATIVE 4
(CAL-MAT PIT AND SUNSHINE CANYON LANDFILL)

			[1]		[2]				[3]		[4]				[5]			
No.	Intersection	Peak Hour	Year 2017 Existing V/C	Year 2017 Existing LOS	Year 2017 Existing with Project V/C	Year 2017 Existing with Project LOS	Change V/C [(2)-(1)]	Significant Impact? [a]	Year 2020 Cumulative without Project V/C	Year 2020 Cumulative without Project LOS	Year 2020 Cumulative with Project & without MM TRA-1 V/C	Year 2020 Cumulative with Project & without MM TRA-1 LOS	Change V/C [(4)-(3)]	Significant Impact? [a]	Year 2020 with Project and MM TRA-1 V/C	Year 2020 with Project and MM TRA-1 LOS	Change V/C [(5)-(3)]	Mitigated ?
14	Glenoaks Boulevard/	AM	0.801	D	0.801	D	0.000	No	0.931	E	0.931	E	0.000	No	0.931	E	0.000	---
	Sheldon Street	MID	0.439	A	0.439	A	0.000	No	0.557	A	0.557	A	0.000	No	0.557	A	0.000	---
		PM	0.613	B	0.613	B	0.000	No	0.741	C	0.741	C	0.000	No	0.741	C	0.000	---
15	Laurel Canyon Boulevard/	AM	0.815	D	0.821	D	0.006	No	0.888	D	0.894	D	0.006	No	0.892	D	0.004	---
	Paxton Street	MID	0.463	A	0.478	A	0.015	No	0.500	A	0.515	A	0.015	No	0.515	A	0.015	---
		PM	0.903	E	0.908	E	0.005	No	0.967	E	0.973	E	0.006	No	0.976	E	0.009	---
16	Haddon Avenue/	AM	0.514	A	0.521	A	0.007	No	0.538	A	0.546	A	0.008	No	0.543	A	0.005	---
	Paxton Street	MID	0.292	A	0.299	A	0.007	No	0.307	A	0.313	A	0.006	No	0.314	A	0.007	---
		PM	0.579	A	0.586	A	0.007	No	0.607	B	0.613	B	0.006	No	0.617	B	0.010	---
17	Kewen Avenue/	AM	0.533	A	0.540	A	0.007	No	0.558	A	0.566	A	0.008	No	0.563	A	0.005	---
	Paxton Street	MID	0.284	A	0.292	A	0.008	No	0.299	A	0.306	A	0.007	No	0.307	A	0.008	---
		PM	0.543	A	0.550	A	0.007	No	0.570	A	0.577	A	0.007	No	0.580	A	0.010	---
18	Telfair Avenue/	AM	0.401	A	0.407	A	0.006	No	0.426	A	0.431	A	0.005	No	0.429	A	0.003	---
	Paxton Street	MID	0.185	A	0.200	A	0.015	No	0.201	A	0.215	A	0.014	No	0.215	A	0.014	---
		PM	0.380	A	0.385	A	0.005	No	0.403	A	0.408	A	0.005	No	0.411	A	0.008	---
19	San Fernando Road/	AM	0.869	D	0.869	D	0.000	No	0.949	E	0.949	E	0.000	No	0.949	E	0.000	---
	Paxton Street	MID	0.712	C	0.712	C	0.000	No	0.768	C	0.768	C	0.000	No	0.768	C	0.000	---
		PM	0.845	D	0.845	D	0.000	No	0.915	E	0.915	E	0.000	No	0.915	E	0.000	---
20	San Fernando Road/	AM	0.562	A	0.567	A	0.005	No	0.629	B	0.634	B	0.005	No	0.632	B	0.003	---
	SR-118 Freeway EB Ramps	MID	0.404	A	0.409	A	0.005	No	0.447	A	0.453	A	0.006	No	0.453	A	0.006	---
		PM	0.527	A	0.533	A	0.006	No	0.583	A	0.588	A	0.005	No	0.591	A	0.008	---
21	San Fernando Road/	AM	0.797	C	0.803	D	0.006	No	0.916	E	0.923	E	0.007	No	0.920	E	0.004	---
	Van Nuys Boulevard	MID	0.493	A	0.499	A	0.006	No	0.544	A	0.550	A	0.006	No	0.550	A	0.006	---
		PM	0.681	B	0.688	B	0.007	No	0.761	C	0.767	C	0.006	No	0.770	C	0.009	---
22	San Fernando Road/	AM	0.820	D	0.826	D	0.006	No	0.938	E	0.944	E	0.006	No	0.941	E	0.003	---
	Pierce Street	MID	0.393	A	0.399	A	0.006	No	0.435	A	0.442	A	0.007	No	0.442	A	0.007	---
		PM	0.707	C	0.714	C	0.007	No	0.803	D	0.808	D	0.005	No	0.811	D	0.008	---
23	San Fernando Road/	AM	0.594	A	0.599	A	0.005	No	0.679	B	0.685	B	0.006	No	0.682	B	0.003	---
	Terra Bella Street	MID	0.259	A	0.265	A	0.006	No	0.294	A	0.299	A	0.005	No	0.300	A	0.006	---
		PM	0.421	A	0.427	A	0.006	No	0.475	A	0.480	A	0.005	No	0.483	A	0.008	---
24	San Fernando Road/	AM	0.835	D	0.841	D	0.006	No	0.940	E	0.946	E	0.006	No	0.944	E	0.004	---
	Osborne Street	MID	0.627	B	0.633	B	0.006	No	0.691	B	0.698	B	0.007	No	0.698	B	0.007	---
		PM	0.842	D	0.848	D	0.006	No	0.931	E	0.936	E	0.005	No	0.939	E	0.008	---
25	San Fernando Road/	AM	0.722	C	0.722	C	0.000	No	0.793	C	0.793	C	0.000	No	0.793	C	0.000	---
	SR-118 Freeway WB Ramps	MID	0.677	B	0.677	B	0.000	No	0.732	C	0.732	C	0.000	No	0.732	C	0.000	---
		PM	0.808	D	0.808	D	0.000	No	0.865	D	0.865	D	0.000	No	0.865	D	0.000	---
26	Arleta Avenue/	AM	0.896	D	0.897	D	0.001	No	0.972	E	0.973	E	0.001	No	0.973	E	0.001	---
	Van Nuys Boulevard	MID	0.502	A	0.502	A	0.000	No	0.544	A	0.545	A	0.001	No	0.545	A	0.001	---
		PM	0.893	D	0.893	D	0.000	No	0.963	E	0.964	E	0.001	No	0.964	E	0.001	---

TABLE 3-28
SUMMARY OF INTERSECTION CAPACITY ANALYSIS – ALTERNATIVE 4
(CAL-MAT PIT AND SUNSHINE CANYON LANDFILL)

			[1]		[2]				[3]		[4]				[5]			
No.	Intersection	Peak Hour	Year 2017 Existing V/C	Year 2017 Existing LOS	Year 2017 Existing with Project V/C	Year 2017 Existing with Project LOS	Change V/C [(2)-(1)]	Significant Impact? [a]	Year 2020 Cumulative without Project V/C	Year 2020 Cumulative without Project LOS	Year 2020 Cumulative with Project & without MM TRA-1 V/C	Year 2020 Cumulative with Project & without MM TRA-1 LOS	Change V/C [(4)-(3)]	Significant Impact? [a]	Year 2020 with Project and MM TRA-1 V/C	Year 2020 with Project and MM TRA-1 LOS	Change V/C [(5)-(3)]	Mitigated ?
27	Bartee Avenue/	AM	0.515	A	0.515	A	0.000	No	0.561	A	0.561	A	0.000	No	0.561	A	0.000	---
	Van Nuys Boulevard	MID	0.335	A	0.335	A	0.000	No	0.363	A	0.363	A	0.000	No	0.363	A	0.000	---
		PM	0.447	A	0.447	A	0.000	No	0.484	A	0.484	A	0.000	No	0.484	A	0.000	---
28	I-5 Freeway NB Off-Ramp/	AM	0.705	C	0.705	C	0.000	No	0.773	C	0.773	C	0.000	No	0.773	C	0.000	---
	Van Nuys Boulevard	MID	0.533	A	0.533	A	0.000	No	0.570	A	0.570	A	0.000	No	0.570	A	0.000	---
		PM	0.645	B	0.645	B	0.000	No	0.698	B	0.698	B	0.000	No	0.698	B	0.000	---
29	Glenoaks Boulevard/	AM	1.032	F	1.032	F	0.000	No	1.200	F	1.200	F	0.000	No	1.200	F	0.000	---
	Osborne Street	MID	0.415	A	0.415	A	0.000	No	0.542	A	0.542	A	0.000	No	0.542	A	0.000	---
		PM	0.818	D	0.818	D	0.000	No	0.971	E	0.980	E	0.009	No	0.979	E	0.008	---
30	Dronfield Avenue/	AM	0.527	A	0.527	A	0.000	No	0.614	B	0.614	B	0.000	No	0.614	B	0.000	---
	Osborne Street	MID	0.233	A	0.233	A	0.000	No	0.293	A	0.293	A	0.000	No	0.293	A	0.000	---
		PM	0.447	A	0.456	A	0.009	No	0.517	A	0.525	A	0.008	No	0.525	A	0.008	---
31	Foothill Boulevard/	AM	0.711	C	0.711	C	0.000	No	0.875	D	0.875	D	0.000	No	0.875	D	0.000	---
	Osborne Street-Driveway	MID	0.278	A	0.278	A	0.000	No	0.393	A	0.393	A	0.000	No	0.393	A	0.000	---
		PM	0.507	A	0.507	A	0.000	No	0.635	B	0.635	B	0.000	No	0.635	B	0.000	---
32	Foothill Boulevard/	AM	0.585	A	0.594	A	0.009	No	0.684	B	0.693	B	0.009	No	0.690	B	0.006	---
	I-210 Freeway EB Ramps	MID	0.303	A	0.311	A	0.008	No	0.390	A	0.395	A	0.005	No	0.394	A	0.004	---
		PM	0.437	A	0.446	A	0.009	No	0.527	A	0.536	A	0.009	No	0.536	A	0.009	---
33	Foothill Boulevard/	AM	0.493	A	0.510	A	0.017	No	0.596	A	0.613	B	0.017	No	0.608	B	0.012	---
	I-210 Freeway WB Ramps	MID	0.247	A	0.264	A	0.017	No	0.332	A	0.349	A	0.017	No	0.349	A	0.017	---
		PM	0.387	A	0.405	A	0.018	No	0.480	A	0.497	A	0.017	No	0.497	A	0.017	---
34	Glenoaks Boulevard/	AM	0.587	A	0.587	A	0.000	No	0.672	B	0.672	B	0.000	No	0.672	B	0.000	---
	Montague Street	MID	0.235	A	0.235	A	0.000	No	0.299	A	0.299	A	0.000	No	0.299	A	0.000	---
		PM	0.569	A	0.578	A	0.009	No	0.647	B	0.656	B	0.009	No	0.655	B	0.008	---
35	Glenoaks Boulevard/	AM	0.576	A	0.587	A	0.011	No	0.671	B	0.683	B	0.012	No	0.678	B	0.007	---
	Branford Street	MID	0.279	A	0.290	A	0.011	No	0.360	A	0.371	A	0.011	No	0.372	A	0.012	---
		PM	0.662	B	0.671	B	0.009	No	0.743	C	0.752	C	0.009	No	0.752	C	0.009	---
36	Glenoaks Boulevard/	AM	0.479	A	0.485	A	0.006	No	0.569	A	0.575	A	0.006	No	0.572	A	0.003	---
	Truesdale Street	MID	0.184	A	0.199	A	0.015	No	0.253	A	0.265	A	0.012	No	0.265	A	0.012	---
		PM	0.473	A	0.488	A	0.015	No	0.554	A	0.568	A	0.014	No	0.571	A	0.017	---
37	Glenoaks Boulevard/	AM	0.427	A	0.427	A	0.000	No	0.526	A	0.526	A	0.000	No	0.526	A	0.000	---
	Peoria Street	MID	0.248	A	0.255	A	0.007	No	0.359	A	0.368	A	0.009	No	0.368	A	0.009	---
		PM	0.452	A	0.461	A	0.009	No	0.572	A	0.581	A	0.009	No	0.581	A	0.009	---
38	Glenoaks Boulevard/	AM	0.435	A	0.435	A	0.000	No	0.583	A	0.583	A	0.000	No	0.583	A	0.000	---
	Pendleton Street	MID	0.330	A	0.339	A	0.009	No	0.469	A	0.469	A	0.000	No	0.469	A	0.000	---
		PM	0.497	A	0.505	A	0.008	No	0.631	B	0.640	B	0.009	No	0.639	B	0.008	---
39	San Fernando Road (East)/	AM	0.676	B	0.698	B	0.022	No	0.743	C	0.764	C	0.021	No	0.758	C	0.015	---
	Tuxford Street	MID	0.547	A	0.568	A	0.021	No	0.613	B	0.634	B	0.021	No	0.633	B	0.020	---
		PM	0.624	B	0.646	B	0.022	No	0.694	B	0.716	C	0.022	No	0.715	C	0.021	---

TABLE 3-28
SUMMARY OF INTERSECTION CAPACITY ANALYSIS – ALTERNATIVE 4
(CAL-MAT PIT AND SUNSHINE CANYON LANDFILL)

			[1]		[2]				[3]		[4]				[5]			
No.	Intersection	Peak Hour	Year 2017 Existing V/C	Year 2017 Existing LOS	Year 2017 Existing with Project V/C	Year 2017 Existing with Project LOS	Change V/C [(2)-(1)]	Significant Impact? [a]	Year 2020 Cumulative without Project V/C	Year 2020 Cumulative without Project LOS	Year 2020 Cumulative with Project & without MM TRA-1 V/C	Year 2020 Cumulative with Project & without MM TRA-1 LOS	Change V/C [(4)-(3)]	Significant Impact? [a]	Year 2020 with Project and MM TRA-1 V/C	Year 2020 with Project and MM TRA-1 LOS	Change V/C [(5)-(3)]	Mitigated ?
40	Bradley Avenue/	AM	0.611	B	0.611	B	0.000	No	0.671	B	0.671	B	0.000	No	0.671	B	0.000	---
	Tuxford Street	MID	0.573	A	0.573	A	0.000	No	0.636	B	0.636	B	0.000	No	0.636	B	0.000	---
		PM	0.587	A	0.595	A	0.008	No	0.647	B	0.655	B	0.008	No	0.655	B	0.008	---
41	Glenoaks Boulevard/	AM	0.769	C	0.788	C	0.019	No	0.877	D	0.896	D	0.019	No	0.891	D	0.014	---
	Tuxford Street-La Tuna Canyon Road	MID	0.480	A	0.499	A	0.019	No	0.565	A	0.584	A	0.019	No	0.584	A	0.019	---
		PM	0.758	C	0.763	C	0.005	No	0.843	D	0.861	D	0.018	No	0.861	D	0.018	---
42	Tujunga Avenue/	AM	0.581	A	0.581	A	0.000	No	0.608	B	0.608	B	0.000	No	0.608	B	0.000	---
	Penrose Street	MID	0.535	A	0.535	A	0.000	No	0.560	A	0.560	A	0.000	No	0.560	A	0.000	---
		PM	0.658	B	0.658	B	0.000	No	0.688	B	0.688	B	0.000	No	0.688	B	0.000	---
43	San Fernando Road (West)/	AM	0.536	A	0.536	A	0.000	No	0.589	A	0.589	A	0.000	No	0.589	A	0.000	---
	Penrose Street	MID	0.443	A	0.443	A	0.000	No	0.483	A	0.483	A	0.000	No	0.483	A	0.000	---
		PM	0.595	A	0.595	A	0.000	No	0.645	B	0.645	B	0.000	No	0.645	B	0.000	---
44	San Fernando Road (East)/	AM	0.347	A	0.347	A	0.000	No	0.369	A	0.369	A	0.000	No	0.369	A	0.000	---
	Penrose Street	MID	0.381	A	0.381	A	0.000	No	0.405	A	0.405	A	0.000	No	0.405	A	0.000	---
		PM	0.376	A	0.376	A	0.000	No	0.398	A	0.398	A	0.000	No	0.398	A	0.000	---
45	I-5 Freeway SB Ramps/	AM	0.656	B	0.656	B	0.000	No	0.688	B	0.688	B	0.000	No	0.688	B	0.000	---
	Penrose Street	MID	0.745	C	0.745	C	0.000	No	0.781	C	0.781	C	0.000	No	0.781	C	0.000	---
		PM	0.710	C	0.710	C	0.000	No	0.744	C	0.744	C	0.000	No	0.744	C	0.000	---
46	San Fernando Road/	**AM**	**0.785**	**C**	**0.808**	**D**	**0.023**	**Yes**	**0.825**	**D**	**0.848**	**D**	**0.023**	**Yes**	**0.834**	**D**	**0.009**	**Yes**
	Sunshine Canyon Road	MID	0.251	A	0.274	A	0.023	No	0.268	A	0.291	A	0.023	No	0.298	A	0.030	---
		PM	0.573	A	0.573	A	0.000	No	0.604	B	0.604	B	0.000	No	0.604	B	0.000	---
47	Balboa Road/	AM	0.988	E	0.988	E	0.000	No	1.045	F	1.045	F	0.000	No	1.045	F	0.000	---
	San Fernando Road	MID	0.381	A	0.405	A	0.024	No	0.439	A	0.462	A	0.023	No	0.469	A	0.030	---
		PM	0.692	B	0.715	C	0.023	No	0.764	C	0.787	C	0.023	No	0.780	C	0.016	---
48	Sepulveda Boulevard/	AM	0.343	A	0.357	A	0.014	No	0.377	A	0.390	A	0.013	No	0.382	A	0.005	---
	San Fernando Road	MID	0.253	A	0.267	A	0.014	No	0.270	A	0.284	A	0.014	No	0.288	A	0.018	---
		PM	0.252	A	0.266	A	0.014	No	0.283	A	0.296	A	0.013	No	0.292	A	0.009	---
49	I-5 Freeway SB Ramps/	**AM**	**1.015**	**F**	**1.038**	**F**	**0.023**	**Yes**	**1.118**	**F**	**1.141**	**F**	**0.023**	**Yes**	**1.127**	**F**	**0.009**	**Yes**
	Roxford Street-Sepulveda Boulevard	MID	0.603	B	0.649	B	0.046	No	0.682	B	0.705	C	0.023	No	0.712	C	0.030	---
		PM	0.736	C	0.759	C	0.023	No	**0.823**	**D**	**0.846**	**D**	**0.023**	**Yes**	**0.839**	**D**	**0.016**	**Yes**
50	I-5 Freeway NB Off-Ramp/	**AM**	**0.965**	**E**	**0.978**	**E**	**0.013**	**Yes**	**1.053**	**F**	**1.067**	**F**	**0.014**	**Yes**	**1.058**	**F**	**0.005**	**Yes**
	Roxford Street	MID	0.776	C	0.789	C	0.013	No	0.866	D	0.880	D	0.014	No	0.884	D	0.018	---
		PM	**0.915**	**E**	**0.928**	**E**	**0.013**	**Yes**	**1.012**	**F**	**1.025**	**F**	**0.013**	**Yes**	**1.021**	**F**	**0.009**	**Yes**
51	I-5 Freeway NB Ramps-Encinitas Ave/	AM	0.795	C	0.795	C	0.000	No	0.887	D	0.887	D	0.000	No	0.887	D	0.000	---
	Roxford Street	MID	0.662	B	0.685	B	0.023	No	0.718	C	0.741	C	0.023	No	0.748	C	0.030	---
		PM	0.591	A	0.598	A	0.007	No	0.678	B	0.683	B	0.005	No	0.678	B	0.000	---
52	I-405 Freeway SB Ramps-Blucher Ave/	AM	0.912	E	0.912	E	0.000	No	0.969	E	0.969	E	0.000	No	0.969	E	0.000	---
	Devonshire Street	MID	0.363	A	0.364	A	0.001	No	0.389	A	0.390	A	0.001	No	0.390	A	0.001	---
		PM	0.576	A	0.576	A	0.000	No	0.616	B	0.616	B	0.000	No	0.616	B	0.000	---

TABLE 3-28
SUMMARY OF INTERSECTION CAPACITY ANALYSIS – ALTERNATIVE 4
(CAL-MAT PIT AND SUNSHINE CANYON LANDFILL)

			[1]		[2]				[3]		[4]				[5]			
No.	Intersection	Peak Hour	Year 2017 Existing V/C	Year 2017 Existing LOS	Year 2017 Existing with Project V/C	Year 2017 Existing with Project LOS	Change V/C [(2)-(1)]	Significant Impact? [a]	Year 2020 Cumulative without Project V/C	Year 2020 Cumulative without Project LOS	Year 2020 Cumulative with Project & without MM TRA-1 V/C	Year 2020 Cumulative with Project & without MM TRA-1 LOS	Change V/C [(4)-(3)]	Significant Impact? [a]	Year 2020 with Project and MM TRA-1 V/C	Year 2020 with Project and MM TRA-1 LOS	Change V/C [(5)-(3)]	Mitigated ?
53	I-405 Freeway NB Ramps/	AM	0.540	A	0.551	A	0.011	No	0.592	A	0.603	B	0.011	No	0.597	A	0.005	---
	Devonshire Street	MID	0.343	A	0.343	A	0.000	No	0.380	A	0.380	A	0.000	No	0.380	A	0.000	---
		PM	0.500	A	0.511	A	0.011	No	0.548	A	0.559	A	0.011	No	0.556	A	0.008	---
54	Sepulveda Boulevard/	**AM**	0.888	D	0.900	D	0.012	No	**0.960**	**E**	**0.972**	**E**	**0.012**	**Yes**	**0.965**	**E**	**0.005**	**Yes**
	Devonshire Street	MID	0.648	B	0.660	B	0.012	No	0.713	C	0.725	C	0.012	No	0.729	C	0.016	---
		PM	**0.944**	**E**	**0.957**	**E**	**0.013**	**Yes**	**1.026**	**F**	**1.038**	**F**	**0.012**	**Yes**	**1.035**	**F**	**0.009**	**Yes**
55	Lemona Avenue/	AM	0.477	A	0.488	A	0.011	No	0.518	A	0.529	A	0.011	No	0.523	A	0.005	---
	Devonshire Street	MID	0.181	A	0.193	A	0.012	No	0.201	A	0.213	A	0.012	No	0.216	A	0.015	---
		PM	0.419	A	0.430	A	0.011	No	0.449	A	0.461	A	0.012	No	0.457	A	0.008	---
56	Woodman Avenue/	**AM**	**0.986**	**E**	**0.998**	**E**	**0.012**	**Yes**	**1.051**	**F**	**1.064**	**F**	**0.013**	**Yes**	**1.056**	**F**	**0.005**	**Yes**
	Devonshire Street	MID	0.354	A	0.366	A	0.012	No	0.382	A	0.395	A	0.013	No	0.398	A	0.016	---
		PM	0.773	C	0.786	C	0.013	No	0.822	D	0.835	D	0.013	No	0.831	D	0.009	---

V/C: volume-to-capacity ratio; LOS: level of service; I: Interstate; SB: southbound; NB: northbound; SR: State Route; EB: eastbound

[a] According to LADOT's "Transportation Impact Study Guidelines", December 2016, a transportation impact on an intersection shall be deemed significant in accordance with the following table:

Final v/c	LOS	Project Related Increase in v/c
>0.700–0.800	C	equal to or greater than 0.040
>0.800–0.900	D	equal to or greater than 0.020
>0.900	E/F	equal to or greater than 0.010

Source: LLG 2017. (Appendix F)

As discussed above, with implementation of MM TRA-1, the traffic impact identified at Intersections 14, 46, 49, 50, 54, and 56, as shown in Column (5) of Tables 3-25 through 3-28, would be reduced to a less than significant level. However, the impact identified at Intersection 6 (San Fernando Road/Brandford Street) for Alternative 2 (Use of Boulevard Pit Only and Sunshine Canyon Landfill) would remain significant. Therefore, MM TRA-2 commits the LACFCD and its Contractor to prohibiting the use of direct haul trucks to the Boulevard Pit exclusively. With implementation of MM TRA-2, there would be a less than significant impact at this intersection (Intersection 6).

Supplemental Review of Kewen Avenue/Paxton Street Intersection

Because proposed Haul Route B would traverse Paxton Street, a supplemental review has also been conducted at the unsignalized Kewen Avenue/Paxton Street intersection, which is located immediately adjacent to Telfair Elementary School. The Kewen Avenue/Paxton Street intersection is presently a T-intersection controlled by a stop sign facing the northbound Kewen Avenue approach with unrestricted flow on Paxton Street. The methodology outlined in the Transportation Research Board's *Highway Capacity Manual* (HCM) for unsignalized intersections has been utilized to determine the individual movement and approach delays expected to be experienced by motorists traversing through this intersection. The supplemental intersection analyses for the Existing, Existing with Project, Cumulative without Project, and Cumulative with Project conditions are summarized in Table 3-29, Supplemental Intersection Analysis Summary.

TABLE 3-29
SUPPLEMENTAL INTERSECTION ANALYSIS SUMMARY

			(1)		(2)			(3)		(4)		
			Existing (2017)		Existing with Project (2017)		Change In Delay	Cumulative without Project (2020)		Cumulative with Project (2020)		Change In Delay
No.	Intersection[a]	Peak Hour	Delay[b]	LOS[c]	Delay[b]	LOS[c]	[(2) - (1)]	Delay[b]	LOS[c]	Delay[b]	LOS[c]	[(4) - (3)]
17	Kewen Avenue/ Paxton Street[d]	AM	31.4	D	33.6	D	2.2	37.8	E	40.9	E	3.1
		Mid-day	12.3	B	12.6	B	0.3	12.6	B	12.9	B	0.3
		PM	25.7	D	7.0	D	1.3	29.2	D	30.8	D	1.6

LOS: level of service; s/veh: seconds per vehicle

[a] Intersection analysis based on the *Highway Capacity Manual* operational analysis methodologies.
[b] Reported control delay values in seconds per vehicle.
[c] Unsignalized Intersection Levels of Service are based on the following criteria:

Control Delay (s/veh)	LOS
<= 10	A
> 10-15	B
> 15-25	C
> 25-35	D
> 35-50	E
> 50	F

[d] Two-Way Stop-Controlled Intersection. Reported values represent the delays associated with the most constrained approach of the intersection.

Source: LLG 2017. (Appendix F)

Consistent with the HCM methodology, the values in Table 3-29 represent the worst-case (i.e., highest) approach delays and LOS that are expected to occur at the northbound Kewen Avenue approach to the intersection. As the worst case approach of this intersection is forecasted to operate at LOS D or better under all analysis conditions, except the year 2020 cumulative with or without the Project, where LOS E operation is identified during the AM peak hour. Application of the City's threshold criteria has indicated incremental, but not significant, traffic impacts at this study intersection under all analysis time periods and conditions. As such, delays to motorists traversing through this intersection are not expected to be adversely affected by the Project. Additionally, it should be noted that the passenger loading/unloading zones associated with Telfair Elementary School during the morning school drop-off and afternoon pick-up time periods are located along Telfair Avenue and Weidner Street, and not on Paxton Street along the proposed Haul Route B.

Supplemental Caltrans Impact Analysis

A supplemental analysis of Caltrans facilities was prepared based on the latest edition of the HCM operational analysis methodologies pursuant to Caltrans' *Guide for the Preparation of Traffic Impact Studies*. As discussed above for the intersection impact analysis, these guidelines are meant to reflect permanent land use changes and associated traffic generation, rather than construction-related traffic that is always, by definition, temporary. Based on recent coordination with Caltrans, analyses of Caltrans facilities should be conducted when and if a project is expected to add 50 or more peak hour trips in either direction on a freeway mainline segment.

Freeway Mainline Segment Review

The following mainline freeway segments along the I-5 Freeway have been identified for assessment based on their proximity to the Project site and the identified haul routes to access each of the sediment disposal sites:

- I-5 Freeway south of Roxford Street
- I-5 Freeway north of Osborne Street
- I-5 Freeway south of Laurel Canyon Boulevard
- SR-118 Freeway east of San Fernando Road
- I-210 Freeway west of Foothill Boulevard
- I-405 Freeway north of SR-118 Freeway.

As shown in Table 3-30, Supplemental Caltrans Freeway Segment Analysis Summary, the Project is not expected to generate 50 or more vehicle trips during either the AM, mid-day, or PM peak hours at any proximate freeway mainline location. Thus, no freeway mainline location would exceed the threshold for preparation of a Caltrans freeway mainline analysis. Therefore, no further analysis of Caltrans freeway mainline segments is required.

TABLE 3-30
SUPPLEMENTAL CALTRANS FREEWAY SEGMENT ANALYSIS SUMMARY

Freeway Segment[a]	Peak Hour	Direction	Caltrans Thresholds for Analysis (Trips)	Project PCE Adjusted Trip Ends[b]	Analysis Required? (Yes/No)
I-5 Freeway	AM	NB	50	33	No
south of Roxford Street		SB	50	33	No
	MID	NB	50	33	No
		SB	50	33	No
	PM	NB	50	33	No
		SB	50	33	No
I-5 Freeway	AM	NB	50	0	No
north of Osborne Street		SB	50	26	No
	MID	NB	50	0	No
		SB	50	26	No
	PM	NB	50	0	No
		SB	50	26	No
I-5 Freeway	AM	NB	50	0	No
south of Laurel Canyon Boulevard		SB	50	26	No
	MID	NB	50	0	No
		SB	50	26	No
	PM	NB	50	0	No
		SB	50	26	No
SR-118 Freeway	AM	EB	50	0	No
east of San Fernando Road		WB	50	26	No
	MID	EB	50	0	No
		WB	50	26	No
	PM	EB	50	0	No
		WB	50	26	No
I-210 Freeway	AM	EB	50	0	No
west of Foothill Boulevard		WB	50	26	No
	MID	EB	50	0	No
		WB	50	26	No
	PM	EB	50	0	No
		WB	50	26	No
I-405 Freeway	AM	NB	50	33	No
north of SR-118 Freeway		SB	50	33	No
	MID	NB	50	33	No
		SB	50	33	No
	PM	NB	50	33	No
		SB	50	33	No

[a] Freeway assessment per the Caltrans' *Guide for the Preparation of Traffic Impact Studies*, December 2002, and recent coordination with Caltrans.

[b] Based on the project trip generation and trip distribution for the project. For the purposes of this analysis, the trips shown represent the maximum number of trips assigned to the freeway segment by any of the alternative routes.

Source: LLG 2017. (Appendix F)

Project Operation

Operation of the Project would involve periodic maintenance visits by LACDPW staff, similar to existing conditions. Because there would be no increase in operation-related trips, there would be no impact related to operation of the Project.

b) Would the project conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand established by the county congestion management agency for designated roads or highways?

No Impact. In accordance with the procedures outlined in the *2010 Los Angeles County Congestion Management Program* (CMP), the Revised TIS included a review to determine if a formal Traffic Impact Assessment (TIA) would be required to determine the potential impacts on designated monitoring locations on the CMP highway system. As discussed below, there would be no impacts to CMP intersections, freeways, or transit service.

Intersections

There are no CMP intersection monitoring locations in the vicinity of the Project site. The CMP TIA guidelines require that intersection monitoring locations must be examined if a project will add 50 or more trips during either the AM or PM weekday peak periods. The Project would not add 50 or more trips during the AM or PM peak hours at the CMP monitoring intersections. Therefore, no further review of potential impacts to intersection monitoring locations that are part of the CMP highway system is required.

Freeways

The following CMP freeway monitoring location nearest to the Project site has been identified:

- CMP Station No. 1007 (I-5 Freeway near Osborne Street)
- CMP Station No. 1053 (SR-118 Freeway west of I-210 Freeway)
- CMP Station No. 1059 (I-210 Freeway at Terra Bella Street)
- CMP Station No. 1072 (I-405 Freeway north of Roscoe Boulevard)

The CMP TIA guidelines require that freeway monitoring locations must be examined if a project will add 150 or more trips (in either direction) during either the weekday AM or PM peak hours. The Project would not add 150 or more trips (in either direction) during either the weekday AM or PM peak hours to the CMP freeway monitoring location. Therefore, no further review of potential impacts to freeway monitoring locations that are part of the CMP highway system is required.

The LACFCD would acquire all necessary permits to implement the Project, including a Caltrans transportation permit, if applicable. Based on the volume of soil to be exported, it is not feasible to avoid all peak commute periods; however, the LACFCD would only haul for one hour (9 AM to 10 AM) during the AM peak period to reduce significant intersection impacts to local streets during the AM peak period. The traffic volumes assessed in the Revised TIS prepared for the Project use passenger car equivalents (PCE) for three- to five-axle vehicles.

Transit Impact Review

As required by the 2010 CMP, a review must be made of CMP transit service. As the Project consists of temporary sediment removal involving the addition of haul trucks to the surrounding street system, increased demand on the existing transit service(s) provided in the vicinity of the

Project is not expected. Therefore, no further analysis is warranted as no impacts to future transit services in the Project area would occur as a result of the Project during construction or operation.

c) Would the project result in a change in air traffic patterns, including either an increase in traffic levels or change in location that results in substantial safety risks?

No Impact. As discussed in Section 3.8, Hazards and Hazardous Materials, the Project would not increase or otherwise affect air traffic patterns related to Whiteman Airport, located approximately 1.5 miles east of the Project site. There would be no impact due to construction or operation of the Project and no mitigation is required.

d) Would the project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

No Impact. The Project would not involve any change to the road configurations in the Project area and would not change in land use, or traffic related to the land use, on the site that would represent an incompatible use. Operation of the Project would be essentially the same as the existing condition, and therefore would not increase traffic hazards or be an incompatible use. There would be no impact and no mitigation is required.

e) Would the project result in inadequate emergency access?

Less than Significant Impact with Mitigation. As discussed in Section 3.8, construction activities would be staged on the Project site and would not interfere with emergency access in the Project area. There would be less than significant impacts at the 56 study intersections related to the daily (Monday through Friday) haul truck trips with implementation of MMs TRA-1 through TRA-3. Additionally, any activities on or adjacent to public streets that could limit traffic flow, such as construction equipment delivery, would be conducted with traffic control measures per the Greenbook; and, for activity in the street right-of-way, the *Work Area Traffic Control Handbook* (WATCH Manual), subject to approval by the LADOT (RR TRA-1). RR TRA-1 would ensure that existing circulation would not be affected during Project implementation. Impacts related to emergency access would be less than significant and no mitigation is required. Operation of the Project would have not impact emergency access, because there would be no long-term changes to the regular inspection and maintenance operations that have occurred historically.

f) Would the project conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

No Impact. Implementation of the Project would not create a demand for alternative transportation systems and would not affect public transit services such that a conflict with alternative transportation policies would occur. No demand for public transit, bicycle, or pedestrian facilities would be created by the Project since there would be no change to land uses in the Project area. The bus stop at Devonshire Street and Arleta Avenue would remain in its current location and continue normal operations during Project implementation. The bike path to be constructed as part of the Project would enhance and complement existing alternative transportation systems, but would not generate new alternative transportation trips.

With regard to safety issues for persons using alternative transportation, including pedestrians and bicyclists on streets near the Project site, the LACFCD has evaluated alternative haul routes, including analysis of potential traffic impacts at intersections, in order to arrive at the planned haul

routes. While some portions of the planned haul routes have fewer residences than others, individuals who travel using alternative transportation can potentially be on all roadways. The presence of haul trucks and/or movement of construction equipment on the road network is a common and unavoidable consequence of the frequent construction activity that occurs in a dense urban environment, even on the scale necessary to remove the excavated sediment from the Project site. Per RR TRA-1, activities on or adjacent to a public street, including haul truck movement, would be conducted with traffic control measures per the Greenbook and WATCH Manual, which would be subject to LADOT approval. These traffic control measures include consider the presence of non-vehicular traffic; through following the signage and directions of flagmen, the Project would not create a safety issue. Further, the Project is a temporary construction activity, although for an extended period, rather than a permanent activity and as such the increased presence of haul trucks and other construction vehicles on the Project area roadways would eventually cease and return to the existing condition. There would be no impact related to conflict with alternative transportation policies due to construction or operation of the Project and no mitigation is required.

MITIGATION MEASURES

MM TRA-1 The Los Angeles County Flood Control District (LACFCD) shall include in the Contractor's specifications the requirement that planned hourly outbound (i.e., loaded) haul truck trips during the AM peak hour, mid-day peak hour, and PM peak hour reflect the following requirements:

- For the AM peak hours, reduce the transport of 18-cy capacity trucks from a total of 23 trucks to 13 trucks, or reduce the transport of 14-cy capacity trucks from a total of 30 trucks to 16 trucks;
- For the mid-day peak hours, increase the transport of 18-cy capacity trucks from a total of 23 trucks hourly to 26 trucks, or increase the transport of 14-cy capacity trucks from a total of 30 trucks hourly to 34 trucks; and
- For the PM peak hours, maintain the transport of 18-cy capacity trucks at a total of 23 trucks hourly (but with an adjusted assignment for Haul Route B and Haul Route C), or reduce the transport of 14-cy capacity trucks from a total of 30 trucks hourly to 29 trucks.

This MM shall be monitored by LACFCD's on-site Construction Inspector when inspecting the site.

MM TRA-2 The Los Angeles County Flood Control District (LACFCD) shall include in the Contractor's specifications the requirement that haul trucks do not travel solely to the Boulevard Pit sediment disposal site at any time. This measure shall be monitored by LACFCD's on-site Construction Inspector when inspecting the site.

3.17 TRIBAL CULTURAL RESOURCES	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant Impact	No Impact
Does the project:				
Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or	☐	☐	☒	☐
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☒	☐	☐

IMPACT ANALYSIS

Regulatory Requirements

RR CUL-1 from Section 3.5, Cultural Resources, related to unanticipated encounter of archaeological resources would be applicable to the analysis of tribal cultural resources.

Impact Discussion

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or

Less than Significant Impact. As discussed in Section 3.5, the Cultural Resources Report did not identify any previously recorded prehistoric or historic archaeological sites or historic buildings and structures in the Project area or within a ½-mile radius of the study area, the standard for Phase I cultural resources investigations. However, the absence of known cultural resources in the Project area does not preclude the possible presence of undiscovered cultural resources, including tribal cultural resources, that may lie in the subsurface. The exposure of historic and archaeological resources during ground-disturbing activities is addressed by adherence to Section 21083.2(g) of the *California Public Resources Code* (RR CUL-1). However, there are no known tribal cultural resources listed or eligible for listing in the California Register of Historical

Places or in a local register, as these would have been documented as part of the Cultural Resources Investigation for the Project (Appendix C-1). There would be a less than significant impact and no mitigation is required.

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Less than Significant Impact with Mitigation. The Project is subject to Assembly Bill (AB) 52. AB 52 (Statutes of 2014), which requires lead agencies to initiate consultation with California Native American Tribes that are traditionally and culturally affiliated with the geographic area of the project and have requested such consultation (affected Tribes)(Section 21080.3.1[b] of *California Public Resources Code*). AB 52 allows the consulted Tribes 30 days after receiving notification to request consultation (Section 21080.3.1[d] of *California Public Resources Code*). The County initiated the offer of consultation under AB 52 with affected Tribes on this Project. Specifically, on October 6, 2015, the LACFCD sent letters to the Fernandeño Tataviam Band of Mission Indians.

On October 19, 2015, the Fernandeño Tataviam Band of Mission Indians (Tataviam or Tataviam Tribe) accepted the offer of consultation pursuant to AB 52 and indicated interest in consulting on the potential for the Project to affect tribal cultural resources of concern to the Tataviam. The consultation process included an on-site meeting between the Tribe and County representatives November 3, 2015; a meeting at the Tataviam offices on May 10, 2016; and multiple email, telephone, and written correspondences throughout the consultation period, which was completed on August 25, 2016. During the AB 52 consultation process, no evidence of known tribal cultural resources that would be affected by Project implementation was provided by the Tataviam. Previously, the County's environmental consultant, as part of the Chambers Group's Cultural Resources Investigation (Appendix C-1) and prior to the enactment of AB 52, sent the Tataviam a letter dated October 31, 2013 requesting information regarding tribal resources in the Project area; there was no response to this solicitation. The County is not aware of any evidence demonstrating the presence of tribal cultural resources on or near the Project site. Therefore, the Project would result in a less than significant impact and no mitigation is required.

However, although a significant impact on tribal cultural resources has not been identified, the County is voluntarily agreeing to offering the actions described in MM TCR-1, which would require all on-site construction personnel to be trained in Native American monitoring procedures and monthly visits by a professional Native American monitor during excavation activities. While there would be no significant impact to tribal cultural resources, and as such no mitigation is required under CEQA, MM TCR-1 has been included in this IS/MND to facilitate implementation of the voluntary actions. Operation of the Project would not impact tribal cultural resources, because there would be no long-term changes to the regular inspection and maintenance operations that have occurred historically.

MITIGATION MEASURES

MM TCR-1 The Los Angeles County Flood Control District (LACFCD) shall include in the Contractor specifications the requirement that prior to the start of sediment removal, a qualified Archaeologist or Native American monitor shall be present at a pre-grading conference to provide the construction personnel with a training on monitoring policy and procedure as appropriate for the Project site. The Contractor specifications shall also require that subsequent to the start of excavation into native soils, a Native American monitor either affiliated with the Tataviam or otherwise determined by the Tataviam to be qualified is scheduled for monthly visits of excavation areas for the duration of the excavation activities. The Native American monitor shall be responsible for immediately notifying the LACFCD's Construction Inspector and the Contractor's Construction Manager in the event a potential resource is encountered. In this event, the processes defined in the *California Public Resources Code* for the management of unanticipated archaeological resources or human remains (see RR CUL-1 and RR CUL-2, respectively) shall be implemented. These requirements shall be monitored by LACFCD's on-site Construction Inspector when inspecting the site.

3.18 UTILITIES AND SERVICE SYSTEMS	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant Impact	No Impact
Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
c) Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☒	☐	☐
d) Have sufficient water supplies available to serve the Project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☐	☒
e) Result in a determination by the wastewater treatment provider which serves or may serve the Project that it has inadequate capacity to serve the Project's Projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
f) Be served by a landfill with sufficient permitted capacity to accommodate the Project's solid waste disposal needs?	☐	☐	☒	☐
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☒	☐

IMPACT ANALYSIS

Regulatory Requirements

RR UTL-1 Construction activities on the Project site must be conducted in compliance with Chapter 20.87 (Construction and Demolition Debris Recycling and Reuse) of the *Los Angeles County Code*, which requires at least 50 percent of all Construction and Demolition (C&D) debris, soil, rock, and gravel removed from the Project site to be recycled or reused unless a lower percentage is approved by the Director of the County of Los Angeles Department of Public Works.

Impact Discussion

a) Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

e) Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

No Impact. The Project would not generate wastewater that would require conveyance or treatment in on-site septic systems or at wastewater plants in the region. As such, the Project would not result in the need for new or expanded treatment facilities. There would be no impact

related to wastewater disposal due to construction or operation of the Project and no mitigation is required.

b) Would the project require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

d) Would the project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

No Impact. The Project would require a limited amount water for the control of fugitive dust during localized grading activities; this water would be provided by a water truck on an as-needed basis. Water for dust control would be sourced from municipal water supplies and trucked to the Project site; however, the amount of water would be limited and finite. Operation of the Project would not require any water supplies and would not involve any new landscaping or associated irrigation. Therefore, the Project would not need new water supplies, tanks, pumps, or other water system facilities. There would be no impact and no mitigation is required.

c) Would the project require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Less than Significant with Mitigation. The Project is, itself, the construction of expanded storm water infrastructure, and the environmental effects of the Project are assessed in this Recirculated IS/MND. As determined in Section 3.1 through 3.17, the Project would result in less than significant impacts due to construction of the Project with implementation of identified mitigation measures. As discussed, operation of the Project would result in no significant environmental impacts, because there would be no long-term changes to the regular inspection and maintenance operations that have occurred historically.

f) Would the project be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

g) Would the project comply with federal, state, and local statutes and regulations related to solid waste?

Less than Significant Impact. Implementation of the Project would generate approximately 1.37 million cy of excavated sediment, approximately 614 cy of demolished concrete, and a small amount of other solid waste (e.g., green waste and packaging materials). A total of 2,800 tpd of sediment would be transported to one of the following Vulcan-owned sediment disposal sites for processing and eventual reuse as construction aggregate: Cal-Mat Pit, Boulevard Pit, and Sheldon Pit; and a total of 2,200 tpd of sediment would be transported to Sunshine Canyon Landfill. The LACFCD has coordinated with Vulcan and the Sunshine Canyon Landfill to ascertain that these facilities have the capability to accept and process this volume of sediment in the expected time frame. The demolished concrete and other non-sediment construction waste would be transported to Sunshine Canyon Landfill or recycled.

Although sediment disposed at Sunshine Canyon would be used as daily cover and other on-site beneficial uses that do not directly contribute to landfill space, to provide a conservative analysis, both the sediment and non-sediment (i.e., demolition debris) are considered against the facility's remaining capacity. The 2,200 tpd of sediment represents approximately 18.2 percent of the landfill's daily permitted throughput of 16,351 cy (12,100 tons), and a volume of 602,800 cy (or approximately 44 percent of the 1.37 mcy of total sediment to be disposed at Sunshine Canyon

Landfill) represents approximately 0.7 percent of the remaining permitted capacity of 82,512,468 cy (72,610,972 tons) as of December 31, 2015 (the most currently publicly available information) (LACDPW 2016). For purposes of this analysis, it is assumed that a total of approximately 1,000 cy of non-sediment/demolition waste would be disposed at Sunshine Canyon Landfill. This would represent approximately 7.3 percent of the landfill's daily permitted throughput of 13,750 cy (12,100 tons) and approximately 0.001 percent of the remaining permitted capacity of 82,512,468 cy (72,610,972 tons), if all demolition waste were disposed on the same day (LACDPW 2016). In reality, this waste would be transported to Sunshine Canyon Landfill over several days and, even on one day, does not exceed the available capacity of the facility. Therefore, implementation of the Project would not directly or cumulatively exceed capacity of the Vulcan pits or the Sunshine Canyon Landfill.

All waste generated during the construction period would be handled and disposed of in compliance with all applicable federal, State, and local statutes and regulations related to solid waste, including RR UTL-1, which requires at least 50 percent of all C&D debris to be recycled or reused. Operation of the Project would not generate solid waste. There would be a less than significant impact related to solid waste and no mitigation is required. Operation of the Project would not impact solid waste disposal, because there would be no long-term changes to the regular inspection and maintenance operations that have occurred historically.

MITIGATION MEASURES

There would be no significant impacts related to utilities and service systems; therefore, no mitigation measures are required.

3.19 MANDATORY FINDINGS OF SIGNIFICANCE	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant Impact	No Impact
Does the project:				
a. Have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b. Have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☒	☐	☐
c. Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

MANDATORY FINDINGS OF SIGNIFICANCE ANALYSIS

a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?

Less than Significant Impact with Mitigation. As discussed in Section 3.4, Biological Resources, there are no sensitive biological resources on or near the Project site. There is potential for nesting birds and raptors to be present on and near the Project site; therefore, mitigation has been provided to reduce potential impacts to nesting migratory birds and raptors to less than significant levels (MM BIO-1).The Project would not degrade the quality of the environment; would not substantially reduce the habitat of fish or wildlife species; would not cause a fish or wildlife population to drop below self-sustaining levels; would not threaten to eliminate a plant or animal community; and would not reduce the number of or restrict the range of a Rare or Endangered plant or animal.

As discussed in Section 3.5, Cultural Resources, and Section 3.17, Tribal Cultural Resources, no impacts would occur to known historic, archaeological, tribal cultural, and/or paleontological resources. Potential impacts to unknown archaeological resources and human remains from implementation of the Project would be less than significant through compliance with RRs CUL-1 and CUL-2. Potential impacts to unknown paleontological resources would be reduced to a less than significant level through implementation of MM CUL-1. Additionally, although no evidence of a significant impact to tribal cultural resources as a result of the Project was determined through the AB 52 consultation process, MM TCR-1 has been included in this Recirculated IS/MND to facilitate implementation of the voluntary measures offered to the Fernandeño Tataviam Band of Mission Indians. Specifically, the LACFCD offered to require all on-site construction personnel to

be trained in Native American monitoring procedures as well as have monthly visits by a professional Native American monitor during excavation activities. Therefore, the Project does not have the potential to eliminate important examples of the major periods of California history or prehistory.

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

Less than Significant Impact with Mitigation. As shown in the analysis in Sections 3.1 through 3.17 above, all construction-related impacts would be either less than significant or mitigated to a less than significant level. As demonstrated by the analysis in this Recirculated IS/MND, there would be no long-term operational impacts because the Project consists of improvements to an existing water conservation facility that would continue operating in a similar manner to existing conditions. As such, there is no potential contribution to long-term cumulative impacts from operation of the Pacoima Spreading Grounds after Project implementation.

The Revised TIS prepared for the Project includes a compilation of other known development projects in the vicinity of both the Project site, the three Vulcan-owned pits, Sunshine Canyon Landfill, and the associated haul routes (refer to Table 3-24, Related Projects List, and Exhibit 3-8, Related Projects Map). Among the projects identified are the LACFCD's Devils Gate Reservoir Sediment Removal Project and Lopez Spreading Grounds Improvement Project. It was determined there would be partially overlapping haul truck routes and schedules. Because the Project would result in only construction-period impacts, a cumulatively considerable impact could occur only if construction of a related project occurred at the same time as the Project. The proposed Project requires mitigation to reduce identified impacts related to local air quality (MM AQ-1 and MM AQ-2), biological resources (MM BIO-1), cultural resources (MM CUL-1), noise (MM NOI-1), and traffic (MM TRA-1 and MM TRA-2). The proposed Project would also implement MM TCR-1 as a voluntary measure.

The related projects included in the Revised TIS were selected based on both location relative to the Project site, haul routes, and disposal locations and the type and size of project. The related projects range in distance from a Project-related feature (i.e., spreading grounds, haul route, disposal location) between approximately 0.10 mile to approximately 2 miles, with one project location (project no. 14) located approximately 5 miles from the Project site. The majority of projects surrounding the Pacoima Spreading Grounds are within approximately 1.25 miles/ and It is noted that of the 25 related projects, only one project is located within approximately ½-mile of the Project site (St. Ephraim Cathedral), as shown on Exhibit 3-8. The proposed St. Ephraim Cathedral near the intersection of Woodman Avenue and Chatsworth Street approximately 0.3-mile northwest of the Project site at the nearest points. The Revised TIS, and by extension the quantitative analyses of air quality, GHG emissions, and noise include consideration of all 25 related projects. For some environmental topics, including aesthetics, land use, and noise, a related project must be in relatively close proximity to a project site (or in this case also a haul route) to possibly result in a cumulative impact. Other environmental topics, including geology and hazards, typically do not result in any effects beyond an individual site and as such cumulative impacts are uncommon.

As demonstrated in the analyses in Section 3.1 through 3.18 of this Recirculated IS/MND, the Project would not result in impacts related to Agriculture and Forest Resources, Land Use and Planning, Mineral Resources, Population and Housing, Public Services, and Recreation; therefore,

implementation of the Project would have no contribution to a cumulative impact related to these topics. Therefore, these topics are not further addressed individually below.

The potential for cumulatively considerable impacts when considering the Project and one or more related projects is presented below for all other environmental topics with identified impacts that would be less than significant or less than significant with mitigation.

Aesthetics

There are no related projects within the same viewshed (i.e., the Project site and the related project sites can be seen at the same time) of the Project site; therefore, views of the site during construction and operation would not be visible in combination with the views of any related projects. There would no cumulative aesthetics impacts.

Air Quality

The assessment of cumulatively considerable emissions for air quality pollutants for which the region is in non-attainment is addressed under Threshold 3.3(c). As discussed, construction of the Project would result in a less than significant cumulative impact with mitigation for (1) all criteria pollutants for which the SoCAB is out of attainment and (2) health risk. The analysis of regional and local criteria pollutant emissions and the Health Risk Assessment are inherently cumulative because the mobile emissions (i.e., vehicle operation) are based on the cumulative traffic generation calculated in the Revised TIS, which considers all related projects.

Biological Resources

The geographic area for consideration of cumulative impacts to biological resources includes all related projects listed in Table 3-24. As discussed in Section 3.4, construction of the Project would have few adverse effects on biological resources due to the existing lack of habitat, special species plants and wildlife, or jurisdictional features. Implementation of the Project would involve removal, and replacement at a 1:1 ratio, of mature trees (RR BIO-1) such that there would no net loss of trees at the Pacoima Spreading Grounds. Additionally, if the Project is initiated during the bird and raptors nesting seasons, MM BIO-1 requires a pre-construction nesting bird/raptor survey to ensure compliance with the MBTA and describes the process for protecting any active nests identified while construction is ongoing. This survey would include all trees and other potential nesting sites on the site and immediate area, including any trees that may require removal. The potential indirect impacts on downstream flows in the Los Angeles River is addressed thoroughly in Threshold 3.4(c); and there would be no impact. As such, related projects that may impact the quantity or quality of downstream flows would not be cumulatively considerable when considered with the Project. There would be no cumulative impacts related to biological resources.

Cultural Resources

The geographic area for consideration of cumulative impacts to cultural resources includes all related projects listed in Table 3-24. As discussed in Section 3.5, there are no known archaeological or paleontological resources, or human remains, within the Project site. the absence of known cultural resources in the Project area does not preclude the possible presence of undiscovered cultural resources that may lie in the subsurface. The exposure of historic and archaeological resources during ground-disturbing activities is addressed by adherence to Section 21083.2(g) of the *California Public Resources Code* (RR CUL-1). Also, deeper excavations that extend into older Quaternary deposits may encounter significant vertebrate fossils. Therefore, MM CUL-1 requires that all construction personnel and County staff (e.g., the

County inspector[s] and geologist[s]) be trained by a qualified Paleontologist to perform monitoring of excavations into native soils of approximately ten feet or deeper pursuant to the monitoring protocol established by the Paleontologist. The *California Health and Safety Code* and the *California Public Resources Code* address the unlikely event of an unanticipated encounter with human remains in Project site. Because there are regulatory and mitigation measures to appropriately handle any unanticipated cultural resources, and it is reasonable to assume that measures would also be in place for the related projects pursuant to the CEQA process, there would be no cumulative impact related to cultural resources.

Geology and Soils

Impacts related to geology and soils are typically limited to the site on which that impact is occurring; there are no related projects located near the Project site. The nearest related project to the Project site (St. Ephraim Cathedral) is located approximately 0.3 miles to the northwest. As discussed in Section 3.6, there are no significant impacts related to geology and soils associated with Project construction. Off-site activities (i.e., sediment disposal) would not cause or contribute to geology and soils impacts. There would be no cumulative impact related to geology and soils.

Greenhouse Gas Emissions

As discussed in Section 3.7, based on the very conservative approach to the analysis of GHG emissions, the Project would not exceed to SCAQMD annual threshold for a cumulative global climate change impact. The analysis of GHG emissions is inherently cumulative because the mobile emissions (i.e., vehicle operation) are based on the cumulative traffic generation calculated in the Revised TIS, which considers all related projects.

Hazards and Hazardous Materials Impacts related to hazards and hazardous materials are typically limited to the site on which that impact is occurring; there are no related projects located near the Project site. The nearest related project to the Project site (St. Ephraim Cathedral) is located approximately 0.3 miles to the northwest. As discussed in Section 3.8, construction of the Project would not involve handling hazardous materials beyond those typical on construction sites, including oil and grease, solvents, diesel fuel, and other chemicals in vehicles, trucks, and heavy equipment, and these would be managed in accordance with applicable regulations (RR HAZ-1 and RR HYD-1). It is reasonable to assume any related project handling common or other hazardous materials would also do so in compliance with regulatory requirements. On-site soil and soil vapor testing determined there are no constituents of concern present in concentrations that exceed the applicable threshold, such that excavation of these materials would represent a hazard to the populations surrounding the site or the haul routes. At a distance of 0.3 miles (the nearest related project to the on-site activities), there would be no potential for cumulative impacts in the event construction activities occur at the same time. Finally, the analysis under Threshold 3.7(c) determined that construction of the Project would not involve TAC emissions in quantities that could be considered hazardous in the vicinity (1/4-mile) of any school. For these reasons, there would be no cumulative impact related to hazard or hazardous materials.

Hydrology and Water Quality

The geographic area for consideration of cumulative impacts to hydrology and water quality includes all related projects listed in Table 3-24. As discussed in Section 3.9, construction of the Project would result in no impacts or less than significant impacts related to surface water quality, groundwater quality, groundwater recharge, drainage patterns, and flooding and inundation. The Project is, itself, the construction of expanded storm water infrastructure, and the environmental effects of the Project are assessed in this Recirculated IS/MND, and there would be no significant impacts with implementation of mitigation. Because of this and the distance to the nearest related

project (approximately 0.3 mile), there would be no cumulative impact related to hydrology and water quality.

Noise

Cumulative impacts related to noise can only occur when two projects are near enough that the individual noise levels combine to a higher noise level, as the effects of noise attenuation reduce noise levels with distance. As noted previously, one project is located within ½-mile of the Project site (St. Ephraim Cathedral), situated approximately 0.3 miles to the northwest. The St. Ephraim Cathedral project was processed under an Initial Study/Mitigated Negative Declaration and, as such, this project also would result in no significant and unavoidable impacts with mitigation. The St. Ephraim project identified noise impacts to adjacent residential properties from operation of the church (City of Los Angeles 2011). As noted above, this related project remains unconstructed. The construction-related noise impacts of the Project would be limited to the site and the immediately adjacent vicinity due to the effects of noise attenuation. As such, this impact would not be cumulatively considerable. Noise generated by haul truck traffic is already addressed on a cumulative level in Section 3.12, because the estimated noise generation on the haul routes is based on cumulative trip generation as calculated as part of the Revised TIS, which considers all related projects. Off-site vehicular noise, including traffic generated by all related projects, is addressed in Threshold 3.12(a). As discussed in Section 3.12, for all routes and all segments analyzed, the Project's noise generation related to truck traffic would not exceed the applicable threshold. Therefore, there would be no cumulative impact related to noise.

Transportation and Traffic

Impacts generated by haul truck traffic is already addressed on a cumulative level. As discussed in Section 3.16, the traffic impact identified at Intersections 14, 46, 49, 50, 54, and 56, as shown in Column (5) of Tables 3-25 through 3-28, would be reduced to a less than significant level with implementation of MM TRA-1. This column (5) of the tables presents the Year 2020 Cumulative with Project and MM TRA-1 Scenario, and as such considers the traffic from all related projects. However, the impact identified at Intersection 6 (San Fernando Road/Brandford Street) for Alternative 2 (Use of Boulevard Pit Only and Sunshine Canyon Landfill) would remain significant. Therefore, MM TRA-2 commits the LACFCD and its Contractor to prohibiting the use of direct haul trucks to the Boulevard Pit exclusively. With implementation of MM TRA-2, there would be a less than significant impact at this intersection (Intersection 6). These conclusions represent the Cumulative (2020) with Project conditions. There would be less than significant cumulative impacts with mitigation related to traffic.

Tribal Cultural Resources

The geographic area for consideration of cumulative impacts to tribal cultural resources includes all related projects listed in Table 3-24. As discussed in Section 3.17, there are no known tribal cultural resources on the Project site and no significant impact was identified. As a voluntary measure, the County would implement MM TRC-1. The exposure of historic and archaeological resources – which include Native American resources – during ground-disturbing activities is addressed by adherence to Section 21083.2(g) of the *California Public Resources Code* (RR CUL-1). All related projects preparing an MND or EIR pursuant to CEQA would also be subject to AB 52; and any related projects that involve a General Plan amendment or zone change would also be subject to Senate Bill (SB) 18, which also involves consultation with Native American tribes. Because there are regulatory measures to appropriately handle any unanticipated cultural resources as well as consult with affected tribes regarding potential tribal resources, and it is reasonable to assume that measures would also be in place for the related projects pursuant to the CEQA process, there would be no cumulative impact related to tribal cultural resources.

Utilities and Service Systems

The geographic area for consideration of cumulative impacts to utilities and service systems includes all related projects listed in Table 3-24. As discussed in Section 3.18, construction of the Project would result in no impacts or less than significant impacts related to wastewater treatment, water supplies, and solid waste. The Project is, itself, the construction of expanded storm water infrastructure, and the environmental effects of the Project are assessed in this Recirculated IS/MND, and there would be no significant impacts with implementation of mitigation. Because of this and the distance to the nearest related project (approximately 0.3 mile), there would be no cumulative impact related to utilities and service systems.

In summary, construction of the Project would not result in impacts that are individually limited but cumulatively considerable. As discussed above, there is no potential contribution from Project operation to long-term cumulative impacts, and long-term operation of the Pacoima Spreading Grounds with Project implementation would remain the same as the existing condition.

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Less than Significant Impact with Mitigation. As shown in the analysis in Sections 3.1 through 3.17 above, the Project would not have environmental effects that could cause substantial adverse effects on human beings, either directly or indirectly. The most likely adverse effect on humans as a result of large-scale earthmoving is due to fugitive dust and diesel particulate emissions, a type of TAC. Dispersion modeling was performed for these pollutant types and concluded there would not be a significant risk to human health at the nearest receptors and, therefore, at all surrounding receptors, with implementation of MM AQ-1 and MM AQ-2. As discussed in Section 3.8, a Phase II ESA was conducted in the headworks area that indicated lead concentrations in shallow soil samples at locations S-2 and S-3 exceeded the applicable action threshold. The LACDPW delineated the extent of impacted soils for eventual exaction and disposal, and the delineated area would be fenced off prior to initiation of Project construction to ensure that lead adsorbed to by soil particles is not inadvertently released into the environment to potentially affect the construction crew or surrounding residents and other receptors. There would be no adverse effects related to lead. Potential adverse noise impacts would be reduced to a less than significant level with implementation of MM NOI-1. The Project would not displace any homes or businesses or divide an established community and would result in greater long-term water conservation.

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