INITIAL STUDY/
MITIGATED NEGATIVE DECLARATION

PROPOSED NORTH HOLLYWOOD CENTRAL GROUNDWATER TREATMENT ACTION

PREPARED BY

LA DWP Los Angeles Department of Water & Power
Environmental Affairs
111 North Hope Street, Room 1044
Los Angeles, California 90012

WITH ASSISTANCE FROM

DUDEK
38 North Marengo Avenue
Pasadena, California 91101

AUGUST 2018

PRINTED ON 30% POST-CONSUMER RECYCLED MATERIAL.

TABLE OF CONTENTS

APPENDICES

FIGURES

TABLES

INTENTIONALLY LEFT BLANK

ACRONYMS AND ABBREVIATIONS

Acronym/Abbreviation	Definition
AB	Assembly Bill
ADT	average daily traffic
AFY	acre-feet per year
ANSI	American National Standards Institute
AOP	advanced oxidation process
AQMP	Air Quality Management Plan
ARARs	applicable or relevant and appropriate requirements
BAT	best available technology
BMP	development of Best Management Practices
CAAQS	California Ambient Air Quality Standards
CAL/OSHA	Department of Industrial Relations, Division of Occupational Safety and Health
CARB	California Air Resources Board
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act of 1980
CERCLA	Response, Compensation, and Liability Act of 1980
CFR	Code of Federal Regulations
CFS	feet per second
CFS/GPM	Design Flow Rate
CH_4	methane
CHRIS	California Historical Resources Information System
CMA	Critical Movement Analysis
CMP	Congestion Management Program
CNDDB	California Natural Diversity Database
CO	carbon monoxide
CO_2	carbon dioxide
COC	contaminant of concern
CRHR	California Register of Historical Resources
CRPR	California Rare Plant Rank
DCP	Department of City Planning
DDW	Division of Drinking Water
EIR	Environmental Impact Report
EO	Executive Order
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FS	feasibility study

Acronym/Abbreviation	Definition
GHG	quality and greenhouse gas
GPM	gallons per minute
GSIS	Groundwater System Improvement Study
GWP	global warming potential
H_2O_2	hydrogen peroxide
HMI	Human Machine Interface
I-	Interstate
IPCC	Intergovernmental Panel on Climate Change
IRP	Integrated Resource Plan
ITE	Institute of Transportation Engineers
LACM	Museum of Los Angeles County
LADCP	LA Department of City Planning
LADOT	Los Angeles Department of Transportation
LADWP	Los Angeles Department of Water and Power
LARWQCB	Los Angeles Regional Water Quality Control Board
LASAN	Los Angeles Bureau of Sanitation
LOS	unacceptable level of service
LPGAC	liquid phase granular activated carbon
LST	localized significance threshold
MCL	maximum contamination level
MCP	Master Control Panel
MND	Mitigated Negative Declaration
MOU	Memorandum of Understanding
MPH	Posted Speed Limit
MT	metric tons
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NDMA	N-nitrosodimethylamine
NF_3	nitrogen trifluoride
NHOU	North Hollywood Operable Unit
NHPS	North Hollywood Pump Station
NL	notification level
NO_2	nitrogen dioxide
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
O_3	ozone
OEHHA	Office of Environmental Health Hazard Assessment

Acronym/Abbreviation	Definition
OH	hydroxyl radicals
OPR	Office of Planning and Research
PCE	tetrachloroethylene
PM_{10}	particulate matter with an aerodynamic diameter less than or equal to 10 microns
$PM_{2.5}$	particulate matter with an aerodynamic diameter less than or equal to 2.5 microns
PRIMP	Paleontological Resources Impact Mitigation Program
RAO	remedial action objective
RCNM	Roadway Construction Noise Model
RI	remedial investigation
RPZ	Runway Protection Zones
RSA	Regional Statistical Area
RT	Rinaldi-Toluca
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCCIC	South Central Coastal Information Center
SDWA	Safe Drinking Water Act
SF_6	sulfur hexafluoride
SFB	Fernando Groundwater Basin
SLF	Sacred Lands File
SO_2	sulfur dioxide
SR-	State Route
SRA	Source-Receptor Area
SVP	Society of Vertebrate Paleontology
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	Toxic Air Contaminant
TBC	to be considered
TCE	trichloroethylene
TWLTL	two-way-left-turn lane
UAIZ	Urban Agriculture Incentive Zone
µg/L	micrograms per liter
ULARA	Upper Los Angeles River Area
USEPA	United States Environmental Protection Agency
USGS	United States Geological Survey
UV	ultraviolet

Acronym/Abbreviation	Definition
V/C	volume to capacity
VMT	vehicle miles traveled
VOC	volatile organic compounds

1 INTRODUCTION

1.1 Project Overview

The Los Angeles Department of Water and Power (LADWP) proposes to implement a response action to address a regional plume of certain hazardous substances in groundwater that has migrated and continues to migrate to the Rinaldi-Toluca (RT) Well Field (Proposed North Hollywood Central Groundwater Treatment Action, also referred to herein as the proposed project or project). The hazardous substances include 1,4-dioxane and certain volatile organic compounds (VOCs), collectively termed herein as Contaminants of Concern (COCs). LADWP has curtailed the use of several groundwater production wells in the RT Well Field due to the presence and/or imminent threat of COCs at the wells. Under current conditions, the beneficial uses of groundwater in the vicinity of the RT Well Field will continue to be impaired, and other LADWP wells may also be affected in the future by the continued spread of these contaminants.

LADWP's response action would include implementing a pumping plan to draw the contaminant plumes toward remediation wells and away from other production wells. The groundwater produced by the remediation wells would receive effective treatment and monitoring in accordance with California State Water Resources Control Board (SWRCB) Division of Drinking Water (DDW) requirements. If selected, the response action would be capable of achieving the remedial action objectives (RAOs) for the project, which include the following: protect human health and the environment by reducing the potential for exposure to COCs in groundwater at concentrations exceeding numerical or risk-based cleanup goals in compliance with Applicable or Relevant and Appropriate Requirements (ARARs) and To Be Considered (TBCs), limit the migration of COCs in groundwater in the vicinity of the RT Well Field at concentrations that prevent the beneficial use of the San Fernando Basin (SFB), remove COCs from groundwater in the vicinity of the RT Well Field to maintain the beneficial uses of the SFB and restore the aquifer to the extent practicable, and restore LADWP's capability to operate its existing RT Well Field consistent with historical and planned use of the RT Well Field in a flexible manner. The treatment equipment to be installed to remove the COCs would be located on property owned by LADWP at the North Hollywood Pump Station (NHPS), which is located approximately 0.6 miles south of the well field. Certain RT wells, identified as remediation wells, would be connected to the proposed treatment equipment via a dedicated well collector pipeline. The treatment would employ an advanced oxidation process (AOP) involving the injection of hydrogen peroxide into the extracted well water followed by exposure to ultraviolet (UV) light. The hydrogen peroxide-UV treatment process would convert the 1,4-dioxane and the VOCs into benign constituents. In addition, liquid phase granular activated carbon (LPGAC) filtration would be used to remove any excess hydrogen peroxide remaining in the water after the AOP treatment. The treated water would then be disinfected and pumped to the potable water distribution system.

Construction of the proposed project would begin in early 2019 and take approximately 2.5 years to complete, including a 3-month commissioning period.

1.2 California Environmental Quality Act

The California Environmental Quality Act (CEQA) applies to proposed projects initiated by, funded by, or requiring discretionary approvals from state or local government agencies. The proposed North Hollywood Central Groundwater Treatment Action constitutes a project as defined by CEQA (California Public Resources Code, Section 21065). LADWP would implement and operate the proposed project and, as a municipal utility, is acting as the CEQA lead agency. LADWP would fund the proposed project, but would also seek funding from other available sources, which may include State Proposition 1 funds.

An Initial Study has been prepared by LADWP as the lead agency in accordance with CEQA guidelines to evaluate potential environmental effects and to determine whether an Environmental Impact Report, a Negative Declaration, or a Mitigated Negative Declaration (MND) should be prepared for the proposed project. The Initial Study has also been prepared to satisfy CEQA requirements of other agencies that may provide approvals, permits, and/or funding for the proposed project.

In accordance with CEQA Guidelines, Section 15369.5, an MND is "prepared for a project when an initial study has identified potentially significant effects on the environment, but (1) revisions in the project plans or proposals made by, or agreed to by, the applicant before the proposed negative declaration and initial study are released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effect on the environment would occur, and (2) there is no substantial evidence in light of the whole record before the lead agency that the project, as revised, may have a significant effect on the environment." The Initial Study for the proposed project determined that the project could cause some potentially significant impacts on the environment, but as shown in the environmental analysis contained herein, those potentially significant impacts would be reduced to less than significant levels through the implementation of mitigation measures. Consequently, the analysis contained herein concludes that an MND should be prepared for the proposed project.

This MND is composed of four sections. Section 1 provides a general overview of the project, CEQA requirements related to the project, the need for and purpose of the project, and the general approach to the RT Well Field remediation. Section 2 provides a description of the environmental setting and the proposed project components, their construction, and operation. Section 3 includes the CEQA Initial Study checklist, which provides an assessment of potential environmental impacts and identifies mitigation measures to reduce potentially significant impacts to less than significant. Section 4 provides a list of LADWP staff and consultants involved in preparing the MND. The MND also includes several appendices that contain technical reports or memoranda related to air quality and greenhouse gas (GHG) emissions, biological resources, noise, and traffic.

1.3 Project Purpose and Need

There are 11 groundwater extraction well fields in the SFB that have been used or are currently being used to produce potable water supplies for the cities of Los Angeles, Burbank, and Glendale. LADWP operates eight of these well fields (Figure 1-1). Between 2012 and 2016, local groundwater provided approximately 14% of the total water supply for the City of Los Angeles (City). Since 1970, local groundwater has provided as much as 30% of total supply during extended dry periods when imported water has been less available (LADWP 2018). In accordance with the 2015 City of Los Angeles Urban Water Management Plan, the City plans to reduce the purchase of imported water by 50% by 2025 and obtain 50% of its potable water from local sources by 2035. The primary source of local water for the City is groundwater, and the City's primary source of groundwater is the SFB.

However, in many areas of the SFB, past improper handling and disposal of chemical compounds used as solvents and additives in various manufacturing and industrial processes have created contamination plumes in the groundwater aquifer. In some areas, these plumes are widespread, and because they migrate downgradient in the aquifer, a number of LADWP's well fields have become contaminated. This has led to the inactivation of progressively more wells as the contamination migrates through the groundwater aquifers. Approximately half of the LADWP wells in the SFB have been shut down, the majority due to contamination, thereby reducing LADWP's total pumping capacity from the SFB.

Since groundwater monitoring efforts first detected concentrations of certain contaminants in the SFB in the 1980s, United States Environmental Protection Agency (USEPA), LADWP, the cities of Glendale and Burbank, and other agencies, such as DDW and the Los Angeles Regional Water Quality Control Board (LARWQCB), have joined in efforts to identify and remediate the contamination. Though some progress has been made in identifying, containing, and removing contaminants, full containment and/or removal have not been achieved, and some contaminant plumes continue to expand. If effective remediation and cleanup measures are not put in place, then various contaminants found in the SFB will continue to spread and to degrade LADWP's groundwater supply, thus requiring more wells to be removed from service. Without treatment, this contamination will reduce LADWP's ability to extract groundwater from the SFB, thereby compromising its ability to provide water to the City.

The proposed project is intended to implement a response action in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) and USEPA guidelines to address a regional plume of hazardous substances in groundwater that has migrated and continues to migrate to the RT Well Field.

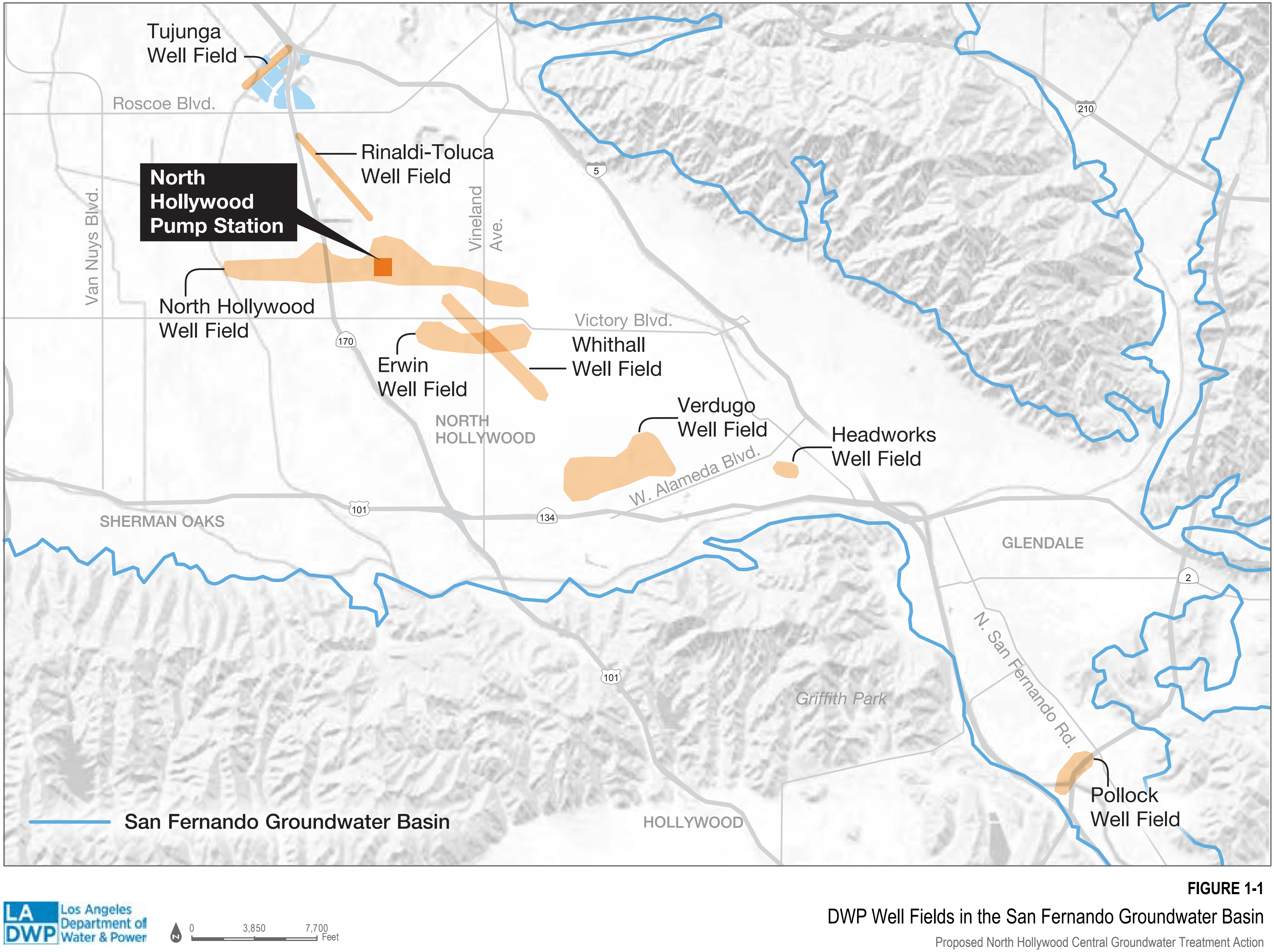
1.4 Approach to SFB and RT Well Field Remediation

In 1986, USEPA placed four areas in the eastern SFB on the National Priorities List for sites affected by releases of hazardous substances, pollutants, and contaminants. Since that time, USEPA has selected several response actions to address the release of hazardous substances located in certain portions of the basin. LADWP is working in concert with USEPA and the LARWQCB to identify parties responsible for and implement response actions to the contamination in the SFB.

LADWP is also investigating the feasibility of implementing other response actions to address releases of hazardous substances into the groundwater basin that are not currently being addressed by USEPA. LADWP plans to conduct any such response actions in compliance with the requirements of the NCP. The NCP provides organizational structure and procedures for responding to releases and threatened releases of, among other things, hazardous substances, pollutants, and contaminants. For a remedial action, as defined in CERCLA, the NCP involves preparation of a remedial investigation (RI) and feasibility study (FS) and various public participation steps, including the publication of a Proposed Plan, which describes the recommended remedial action. Following a public comment period and public meeting, a response action may be selected and approved, which would be documented in a decision document.

Previous RIs conducted by USEPA have served to delineate the nature and extent of contamination in specific areas of the SFB. Further investigations, implementation of treatment systems, and groundwater quality monitoring are ongoing to address the contamination identified by these studies. In early 2015, LADWP completed the SFB Groundwater System Improvement Study (GSIS), which was a 6-year study characterizing contamination in the basin. Twenty-five new monitoring wells were drilled in support of the GSIS. These new wells, along with a network of more than 70 previously existing wells, are being used to characterize the basin's groundwater quality and develop plans for remediation facilities to remove contamination from various well fields in the SFB.

Primary areas of concern include the RT, Tujunga, North Hollywood, and Pollock well fields. Due to the specific nature and extent of the contamination in these various areas, LADWP has decided on a discrete remedial action approach that consists of analyzing and developing facilities for localized treatment at specific sites. Thus, response actions vary by individual well fields and contamination plumes across the SFB. LADWP has identified the North Hollywood Central Groundwater Treatment Action as a discrete interim remedial action, which is limited in scope to addressing the release of COCs in groundwater that has migrated and continues to migrate to the RT Well Field. The interim remedial action that makes up the proposed project focuses on the RT wells, with 1,4-dioxane and VOCs as the COCs.



P:\300.Environmental\10649 LADWP On-Call Services\03 Task Orders\31_North Hollywood Central MND\03 GIS_Graphics\GIS_RMaps\Graphics

LA DWP Los Angeles Department of Water & Power

FIGURE 1-1

DWP Well Fields in the San Fernando Groundwater Basin

Proposed North Hollywood Central Groundwater Treatment Action

INTENTIONALLY LEFT BLANK

Consistent with NCP requirements, LADWP has prepared the Interim RI/FS for the proposed North Hollywood Central Groundwater Treatment Action and related documents and a corresponding North Hollywood Central Groundwater Treatment Action Proposed Plan. Building on prior work by LADWP, USEPA, and others, the Interim RI/FS presents a conceptual site model and LADWP's understanding of the groundwater basin's physical characteristics, the nature and extent of 1,4-dioxane and VOC contamination, fate and transport characteristics of the 1,4-dioxane and VOCs, and the contaminants' risk to human health as it relates to the RT wells. The Interim RI/FS investigated a variety of remedial alternatives, including different treatment scenarios, various means of managing contaminated water in the vicinity of the RT Well Field, and options for obtaining water from alternative sources. The Proposed Plan identifies the capture of the plumes through the pumping of certain RT wells (i.e., the remediation wells) and treating the pumped water via AOP using hydrogen peroxide and UV light, followed by LPGAC, as the recommended remedial action for addressing the COCs at the RT Well Field. Pursuant to CEQA, the proposed project reflecting this recommended remedial action has been evaluated for its potential environmental impacts in this MND. The Interim RI/FS, including the alternatives and the Proposed Plan, will be reviewed and finalized concurrently with the MND. LADWP will consider public comments on the Interim RI/FS, Proposed Plan, and the MND prior to making a decision on the proposed project.

State and federal regulatory agencies are overseeing other response actions in the vicinity of the RT Well Field, which are intended to address the source area for the COCs and/or the regional contamination plumes to the east and downgradient of the RT Well Field. Those actions have the potential to enhance the effectiveness of the proposed project by reducing the future migration of 1,4-dioxane, VOCs, and other chemicals towards the RT Well Field, but they do not obviate the need to address the impacts that already exist at or near the well field. None of these actions would address the releases of 1,4-dioxane and VOCs that are currently affecting the RT Well Field and the resulting impairment of beneficial uses of the groundwater resources at the field that will continue for many years. LADWP will continue to monitor the status of these other potential actions and work with the agencies and other stakeholders, and will adjust the remedial action for the RT Well Field as appropriate based on new information as it develops.

References

LADWP (Los Angeles Department of Water and Power). 2018. San Fernando Groundwater Basin Remediation Program. January 2018.

INTENTIONALLY LEFT BLANK

2 PROJECT DESCRIPTION

2.1 Environmental Setting

Rinaldi-Toluca Well Field

The RT Well Field is one of LADWP's eight production well fields in the SFB. It consists of 15 wells that are located within an approximately 150-foot-wide LADWP high-voltage power line corridor east of the Hollywood Freeway (SR-170) in the Sun Valley community of Los Angeles (Figure 2-1 and Figure 2-2). Following the power line corridor, the well field runs from northwest to southeast for approximately 1.25 miles, from north of Strathern Street to south of Saticoy Street (Figure 2-3). The power line corridor contains four 230-kilovolt (kV) transmission lines suspended in pairs on two separate steel lattice transmission towers. In addition, two 35-kV sub-transmission lines suspended from a single wood pole are located in the corridor. Other uses within the corridor in the area of the well field include commercial nursery operations and paved vehicle storage lots. The power line corridor is zoned PF-1XL (Public Facilities) and has a City of Los Angeles General Plan land use designation of Public Facilities. It is bounded primarily by single-family residential uses but also by some recreation, commercial, and light manufacturing uses.

The current pumping capacity of the RT Well Field, based on the 2017 Well Status Reports, is approximately 104 cubic feet per second (CFS), which equates to approximately 46,700 gallons per minute (GPM). The combined flow from the well field is collected in a 60-inch-diameter pre-stressed concrete pipeline that is routed along the power line corridor to the LADWP Lankershim Yard, which is located approximately 0.3 miles south of the southernmost RT well. At the Lankershim Yard, the well water is injected with chlorine at the RT Chlorination Station. From Lankershim Yard, the chlorinated water is transmitted through the 60-inch collector pipeline to NHPS, which is located approximately 0.25 miles to the south of Lankershim Yard. This pipeline segment between Lankershim Yard and NHPS provides the disinfection contact time and disinfection residual required to meet water quality regulations.

North Hollywood Pump Station

The primary treatment components of the proposed project would be located at NHPS. NHPS is located at 11805 Vanowen Boulevard in the North Hollywood community of Los Angeles. The NHPS property is bounded by Vanowen Street to the south, Hinds Avenue to the west, Dehougne Street to the north, and Morella Avenue to the east. NHPS essentially encompasses this entire block, with the exception of two residential parcels located at the southwest corner of Dehougne Street and Morella Avenue (i.e., the northeast corner of the block). The NHPS property is approximately 3.5 acres in size. LADWP also owns an approximately 0.2-acre parcel on the northeast corner of Vanowen Street and Morella Avenue, across from NHPS to the east. This property is currently being used to support the installation of the replacement River Supply Conduit trunk line (Figure 2-4).

Existing facilities at NHPS include the sump, forebay, and pump station; a chlorination station; an ammoniation station; and a fluoridation station. Water from several LADWP well fields, including the RT Well Field, is collected at

NHPS. At NHPS, chlorinated water is chloraminated with the addition of ammonia. The water then enters the NHPS sump and forebay and continues to pipelines supplying potable water to various parts of the City. These existing facilities occupy the approximately 2.25-acre southernmost portion of the NHPS property. The remainder of the property, which is the site for the proposed project facilities at NHPS, is currently used for parking and temporary trailer and storage container space.

The NHPS property includes several zoning and General Plan land use designations. The parcels fronting Vanowen Street, where the hydroelectric generators are located, are zoned R3-1 (Multiple Dwelling Zone) and have a land use designation of Public Facilities. The two parcels located at the southeastern corner of Hinds Avenue and Dehougne Street are zoned RD1.5-1 (Restricted Density Multiple Dwelling Zone) and have a land use designation of Low Medium II Residential; one of these parcels is vacant, and the other contains unoccupied residential structures. The balance of the NHPS property, located between Hinds and Morella Avenues, where the existing water treatment and distribution facilities are located, is zoned PF-1XL (Public Facilities) and has a land use designation of Public Facilities.

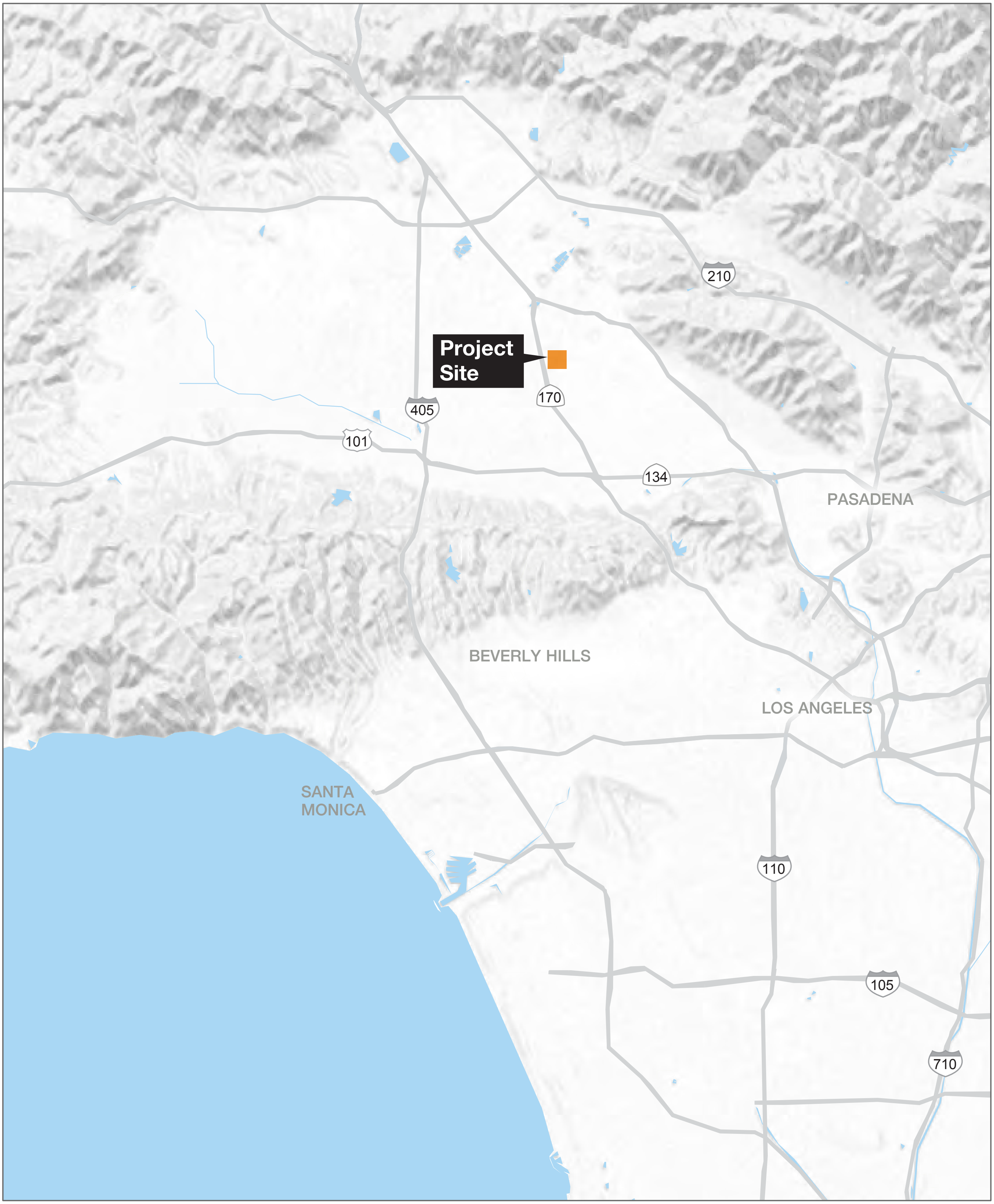
Uses immediately adjacent to NHPS (along Vanowen Street, Hinds Avenue, Dehougne Street, and Morella Avenue) consist primarily of multi-family residential with some single-family residential units. This pattern generally reflects the uses in the broader area surrounding NHPS, with some light industrial and community commercial and service functions farther to the north and east from NHPS.

2.2 Contamination at the RT Well Field

Monitoring has revealed that 1,4-dioxane, trichloroethylene (TCE), and tetrachloroethylene (PCE) are present in the groundwater at the RT Well Field. As discussed previously, this contamination is attributable to past improper handling and disposal of chemical compounds that are used in various manufacturing and industrial processes. Because the monitored levels of these contaminants at the wells sometimes exceed regulatory limits, the use of certain RT wells has been curtailed or suspended.

The COCs of concern at the RT wells are 1,4-dioxane TCE and PCE. The USEPA and DDW have established a maximum contamination level (MCL) for TCE and PCE of 5 micrograms per liter (μg/L) (also expressed as 1 part per billion (ppb)). MCLs define an upper limit for a substance allowed in drinking water. Monitoring data have indicated that the concentration of TCE and PCE has exceeded 5 μg/L at numerous RT wells.

Currently, there is no federal or state MCL established for 1,4-dioxane in drinking water. However, DDW has established a notification level (NL) for 1,4-dioxane of 1 μg/L. NLs are health-based advisory levels, and an NL exceedance prompts certain requirements and recommendations from DDW. LADWP has identified the NL as a preliminary cleanup level for 1,4-dioxane. As a point of reference, the USEPA has set the cleanup level for 1,4-dioxane at the North Hollywood Operable Unit at the DDW NL. Monitoring data have indicated that the concentration of 1,4-dioxane has exceeded 1 μg/L at several of the RT wells.



P:\300.Environmental\10649 LADWP On-Call Services\03 Task Orders\31_North Hollywood Central MND\03 GIS_Graphics\GIS_RMaps\Graphics

LA DWP Los Angeles Department of Water & Power

FIGURE 2-1

Regional Map

Proposed North Hollywood Central Groundwater Treatment Action

INTENTIONALLY LEFT BLANK

P:\300.Environmental\10649 LADWP On-Call Services\03 Task Orders\31_North Hollywood Central MND\03 GIS_Graphics\GIS_RMaps\Graphics

LA DWP Los Angeles Department of Water & Power

FIGURE 2-2

Vicinity Map

Proposed North Hollywood Central Groundwater Treatment Action

INTENTIONALLY LEFT BLANK

P:\300.Environmental\10649 LADWP On-Call Services\03 Task Orders\31_North Hollywood Central MND\03 GIS_Graphics\GIS_RMaps\Graphics

SOURCE: Google Earth, accessed 4/13/18

0 400 800
Feet

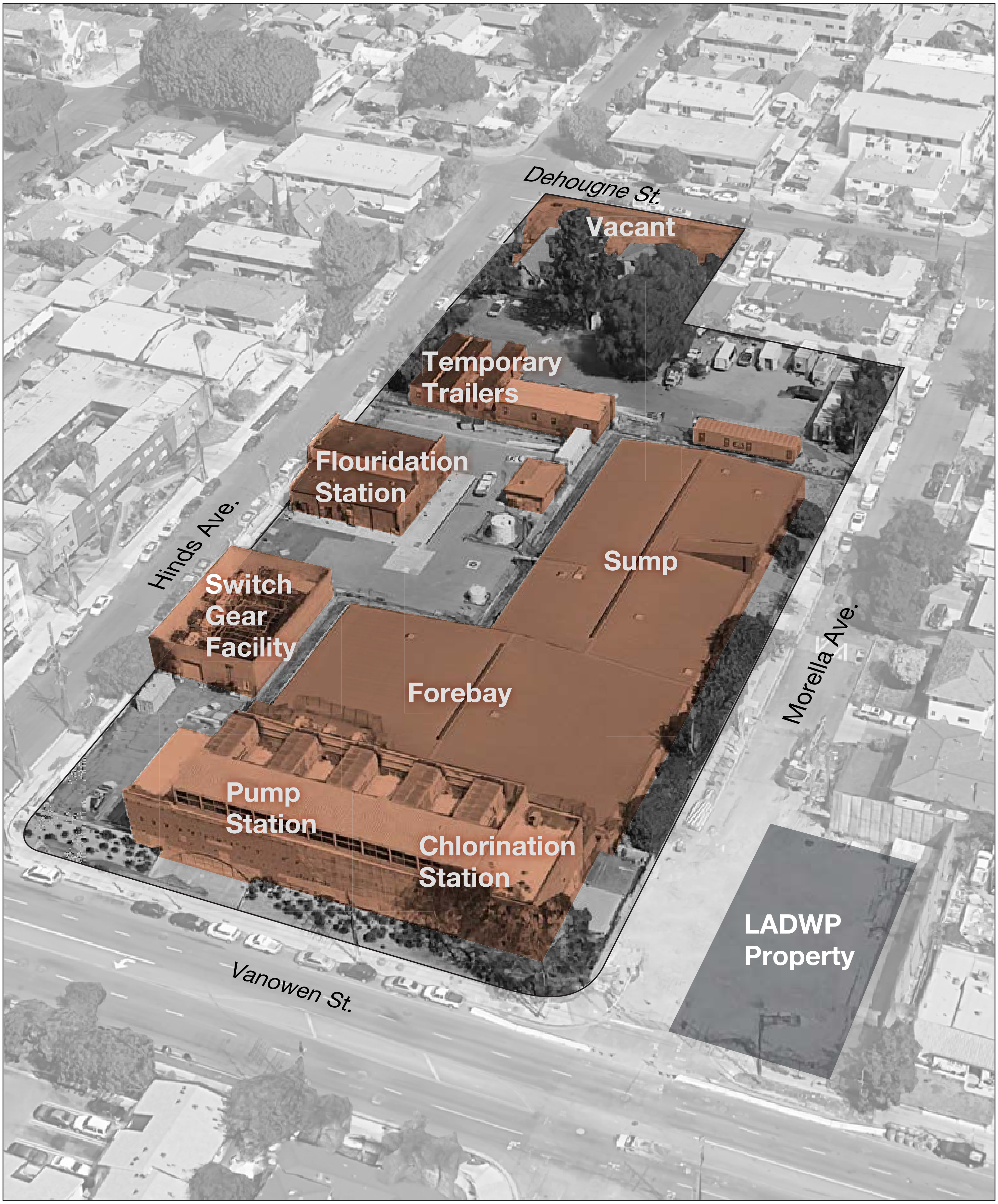
FIGURE 2-3

Rinaldi-Toluca Well Field

Proposed North Hollywood Central Groundwater Treatment Action

INTENTIONALLY LEFT BLANK

P:\300.Environmental\10649 LADWP On-Call Services\03 Task Orders\31_North Hollywood Central MND\03 GIS_Graphics\GIS_RMaps\Graphics



SOURCE: Google Earth, 4/13/2018

FIGURE 2-4

North Hollywood Pump Station (Existing)

Proposed North Hollywood Central Groundwater Treatment Action

INTENTIONALLY LEFT BLANK

Monitoring data within and surrounding the well field and fate and transport modeling results of the groundwater flow and contamination were used to help determine which of the RT wells require pumping and treatment to achieve the RAOs. According to the results of the groundwater modeling, the southernmost RT wells (RT-13, RT-11, RT-01, RT-14, and RT-15, listed from north to south) play an important role in intercepting the COCs, and they have been identified as remediation wells under the proposed project.

Groundwater modeling determined that continuous operation of these wells and treatment of the well water is required to capture the identified contamination plumes and remove contaminants from the water. Once the system is in operation, LADWP would monitor the conditions and adjust the remedial pumping as appropriate. The flow rate of the five remediation wells, based on the sum of their pumping capacities, is approximately 38.2 CFS.

For more detailed information regarding the groundwater monitoring program, determination of contamination levels, fate and transport modeling, identification of the remediation wells, and the proposed treatment plan, refer to the Interim RI/FS, which is incorporated in this MND by reference.

2.3 Proposed Facilities

To reduce the identified COCs in the water from the RT Wells to below the applicable NL and MCLs, the following facilities are proposed. An overview of the proposed project in its entirety is included in Figure 2-5, and Figure 2-6 shows where remediation and untreated flows would enter the NHPS site.

Remediation Facilities and Equipment at NHPS

The remediation facilities and equipment that would be installed at NHPS consist of a pre-filtration system, hydrogen peroxide storage, a hydrogen peroxide injection vault, a UV reactor building, Liquid Phase Granular Activated Carbon vessels, a wastewater tank and sewer connection, a disinfection contact tank, and ancillary facilities such as a storage room and a workshop. An overview of the proposed changes to the NHPS is provided in Figure 2-6, and each of the proposed facilities are described in further detail below.

Pre-Filtration System

Water from the five remediation wells, which would be conveyed to NHPS through a new collector line installed as part of the project, would first pass through a pre-filtration system consisting of sand separators and cartridge filters to remove sand and other small particles from the water (Figure 2-7). The sand separator equipment would remove particles through centrifugal force in order to prevent clogging of the cartridge filters. A standby sand separator unit, in addition to four main sand separator units, would be provided for maintenance switchovers. After the sand separators, the water would enter the cartridge filter system. The cartridges have a 90% efficiency for removal of particles as small as 0.5 microns. A standby cartridge filter unit, in addition to five main cartridge filter units, would be provided for maintenance switchovers. All sand separator and cartridge filter units would operate in parallel, and pipe and valve manifolds would be provided to allow any unit to be taken off line as needed.

Hydrogen Peroxide Storage

Hydrogen peroxide at 27.5% concentration would be stored in four 12-foot-diameter, 9,000-gallon aboveground tanks (Figure 2-7). The tanks would be located beneath a shade structure. At 27.5% concentration, hydrogen peroxide is classified as a Class 1 oxidizer, which is the lowest class in terms of combustion hazard. A Class 1 oxidizer can slightly increase the burning rate of combustible materials, but it does not cause spontaneous ignition when it comes in contact with such materials. Nonetheless, to provide additional safeguards, the hydrogen peroxide facilities at NHPS would be designed based on the criteria for a Class 2 oxidizer, which includes hydrogen peroxide up to 52% concentration. The storage facility would also include a truck off-loading area where the hydrogen peroxide would be transferred to the tanks. The tanks and the truck off-loading area would be protected by a spill and leak containment system with sump pumps and emergency shut-off for the transfer pumps. The tanks would also be protected with temperature sensors, level sensors, and leak sensors with an emergency shut-off and alarms. The storage facility would include an emergency eyewash and shower station.

Hydrogen Peroxide Injection Vault

After the water exits the pre-filtration system, it would enter an aboveground hydrogen peroxide injection vault, which would be fed from the hydrogen peroxide storage tanks (Figure 2-8). The injection vault would include metering pumps and diffusers (one main and one standby) to distribute the hydrogen peroxide throughout the water circulating through the vault. Leak and flood sensors and alarms, as well as analyzers to measure the hydrogen peroxide concentration of the water exiting the vault, would also be provided.

Ultra-Violet Reactor Building

After exiting the hydrogen peroxide injection vault, the water would be directed to the UV reactor building. The building would contain three main UV reactor trains and one standby train for maintenance switchovers. Each reactor would contain 384 low-pressure, high-output lamps. Each reactor would have a local control panel with a Human Machine Interface (HMI) located adjacent to the reactor. Analyzers (one main and one backup) would be used to determine the UV transmittance of the influent water for process control and monitoring and would include an alarm to alert operators to changes in water quality (Figure 2-8).

Liquid Phase Granular Activated Carbon

Some hydrogen peroxide residual would remain in the water that exits the UV reactor building. Liquid Phase Granular Activated Carbon (LPGAC) would be used to remove this residual from the water. The LPGAC system would consist of 23 main vessels and 1 standby vessel for maintenance switchovers. Each vessel would be approximately 10 feet in diameter, 20 feet in height, and 20,000 gallons in capacity (Figure 2-8). Hydrogen peroxide analyzers (one main and one backup) would be provided to measure the hydrogen peroxide concentration in the water as it exits the LPGAC vessels.

P:\300.Environmental\10649 LADWP On-Call Services\03 Task Orders\31_North Hollywood Central MND\03 GIS_Graphics\GIS_RMaps\Graphics

LA DWP Los Angeles Department of Water & Power

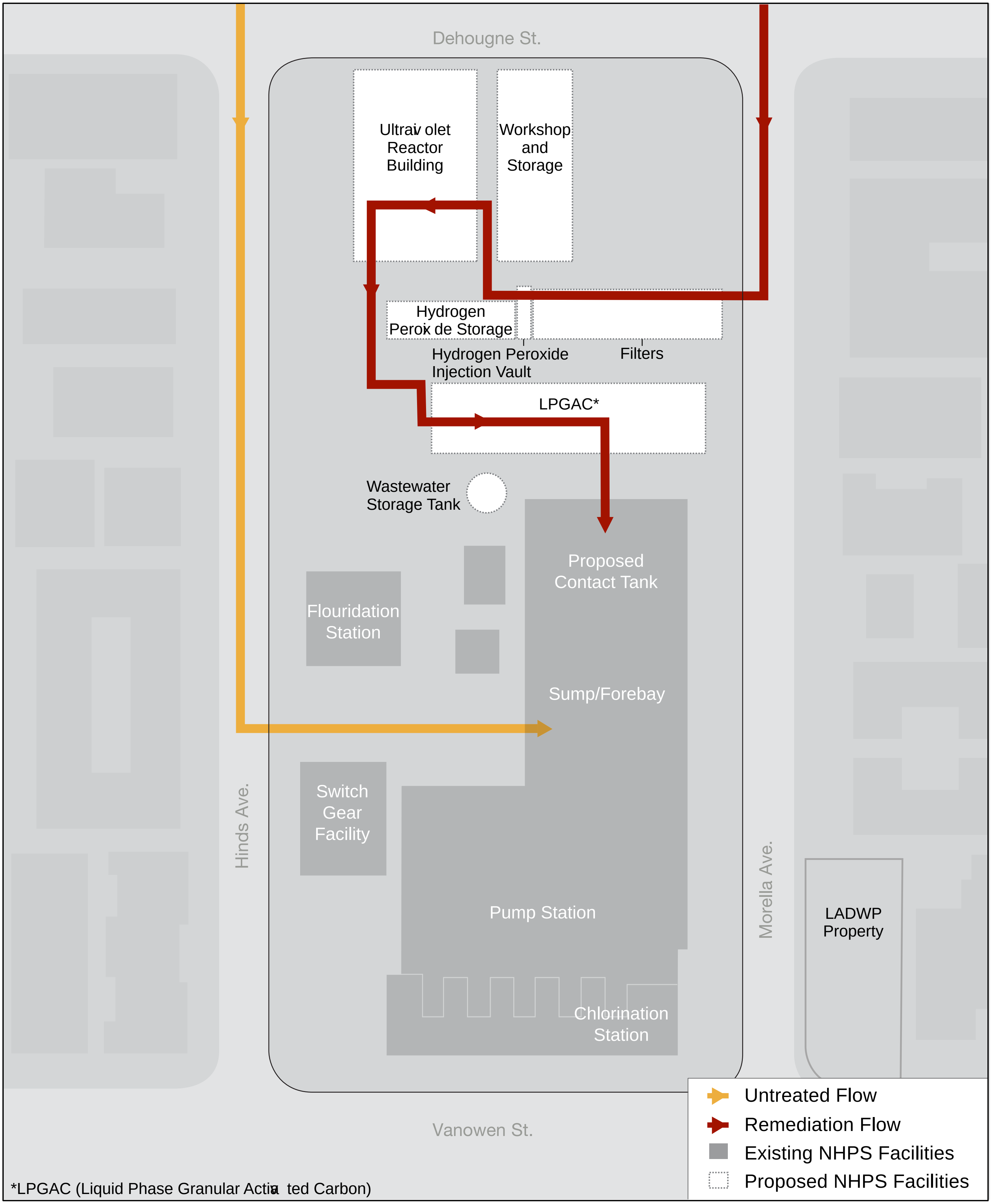
N 0 400 800 Feet

FIGURE 2-5

Project Overview

Proposed North Hollywood Central Groundwater Treatment Action

INTENTIONALLY LEFT BLANK



*LPGAC (Liquid Phase Granular Activated Carbon)

P:\300 Environmental\10549 LADWP On-Call Services\03 Task Orders\31_North Hollywood Central MND\03 GIS_Graphics\GIS_RMaps\Graphics

LA DWP Los Angeles Department of Water & Power

0 50 100 Feet

FIGURE 2-6

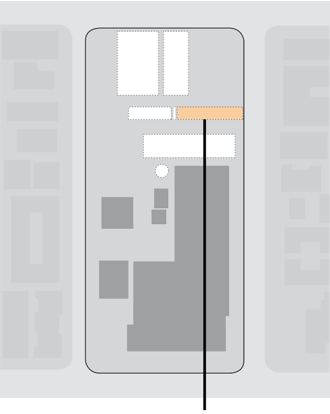
North Hollywood Pump Station (Proposed)

Proposed North Hollywood Central Groundwater Treatment Action

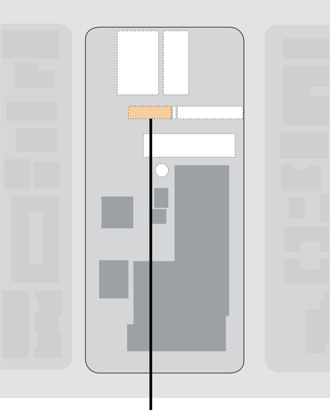
INTENTIONALLY LEFT BLANK

Typical Pre-Filtration Unit

Existing and Proposed Facilities at North Hollywood Pump Station



Location of Proposed Pre-Filtration Units



Location of Proposed Hydrogen Peroxide Storage Tanks

Typical Hydrogen Peroxide Storage Tank

P:\300.Environmental\10649 LADWP On-Call Services\03 Task Orders\31_North Hollywood Central MND\03 GIS_Graphics\GIS_RMaps\Graphics

SOURCE: NHC-SOW-DRAFT-NOVEMBER 2017

LA DWP Los Angeles Department of Water & Power

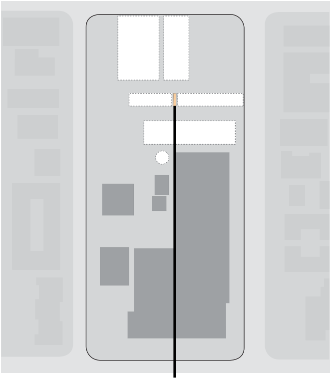
FIGURE 2-7

Typical Pre-Filtration Unit and Typical Hydrogen Peroxide Tank

INTENTIONALLY LEFT BLANK

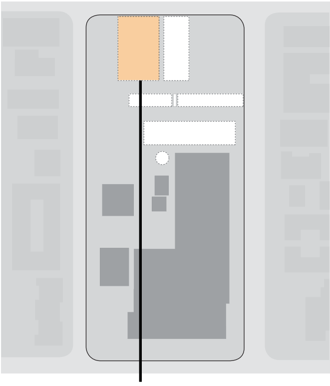
Typical Hydrogen Peroxide Injection Unit

Existing and Proposed Treatment Facilities at North Hollywood Pump Station



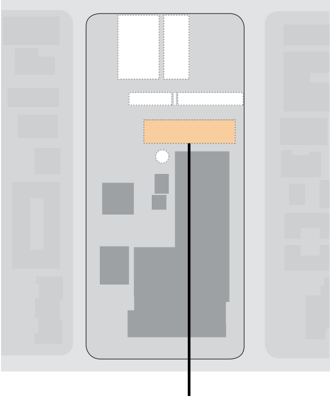
Location of Proposed Hydrogen Peroxide Injection Unit

Typical UV Reactor



Location of Proposed UV Reactor Building

Typical Liquid Phase Granular Activated Carbon Vessels



Location of Proposed Liquid Phase Granular Activated Carbon Vessels

P:\300 Environmental\10649 LADWP On-Call Services\03 Task Orders\31_North Hollywood Central MND\03 GIS_Graphics\GIS_RMaps\Graphics

SOURCE: NHC-DSOW-DRAFT November 2017

FIGURE 2-8

LA DWP Los Angeles Department of Water & Power

Typical Hydrogen Peroxide Injection Unit, Ultraviolet Reactor and Liquid Phase Granular Activated Carbon Vessels

Proposed North Hollywood Central Groundwater Treatment Action

INTENTIONALLY LEFT BLANK

to provide monitoring and alarm the operator when the design limit is exceeded. Nitrate analyzers would also monitor nitrate concentration in the water as it enters and exits the LPGAC vessels. Chlorine injection equipment and hose bibs would be provided to flush and disinfect each vessel when required. The LPGAC facility would also include an emergency eyewash and shower station.

Wastewater Tank and Sewer Connection

To maintain system efficiency, LPGAC vessel backflushing would be required and would produce wastewater that would be discharged to the local sewer system. Each vessel would be backflushed every 2 to 3 weeks on a rotating basis. This procedure would produce approximately 12,000 gallons of wastewater per vessel. Several vessels may be backflushed in a single day. Approximately every 3 years, the LPGAC vessels would also require backwashing during the change-out of the carbon medium. This procedure would produce approximately 24,000 gallons of wastewater per vessel. Only one vessel would be removed from service at a time for change-out and backwashing. The wastewater from backflushing and backwashing would be temporarily stored in a new on-site 60,000-gallon wastewater tank and discharged to the sewer system at a rate that would not exceed the available capacity of the existing sewer line in Lankershim Boulevard, which has been determined by City of Los Angeles Bureau of Sanitation to be 500 GPM. While it is not anticipated that the tank would reach capacity based on the backflushing and/or backwashing operations, at 500 GPM, a full tank could be drained in approximately 2 hours.

A new 6-inch-diameter sewer lateral connecting to the existing sewer line in Lankershim Avenue would be required. The sewer lateral would be routed north in Morella Avenue for approximately 900 feet and then east on Hart Street for approximately 600 feet to Lankershim Avenue. It would be installed in the same trench as the proposed collector line required to connect the RT remediation wells to NHPS (see below under Remediation Wells Collector Line).

Disinfection Contact Tank

Because the remediation well water would be transferred directly to the proposed treatment facilities at NHPS and not mixed with the other RT well water, it would bypass the RT Chlorination Station, where it would have otherwise received disinfection treatment. To provide disinfection for the treated water after it exits the LPGAC, a portion of the NHPS sump would be converted to a chlorine contact tank. The water exiting the LPGAC would be injected with chlorine supplied by the existing NHPS chlorine gas system and then discharged into the contact tank. The tank would provide sufficient disinfection contact time and disinfection residual required to meet DDW water quality regulations.

Additional NHPS Facilities

The following facilities would also be constructed at NHPS as part of the proposed project.

Storage Room

- Spare parts for repair and maintenance of equipment

Control Room

- Plant Master Control Panel (MCP) with Master Programmable Logic Controllers with HMI
- UV MCP with Master Programmable Logic Controllers with HMI
- Uninterruptible power supply
- Incorporated into the Supervisory Control and Data Acquisition monitoring system; requires HMI for operator monitoring and adjustments of process control

Workshop

- Work area for operators, including workstations and desks
- Wash sink with potable water connection for cleaning equipment and tools
- Power supply for high-voltage equipment

Water Quality Lab

- Work area for water quality personnel
- Lab bench with wash sink, potable water supply, and power supply

Spent UV Lamp Room

- Temporary storage of used UV lamps

Site Security

- Fencing around the NHPS perimeter at the new treatment facilities
- Electronic access control
- Security alarms and cameras

RT Well Field Modifications and Facilities

Remediation Wells

To account for the head loss (i.e., loss of pressure) due to the proposed treatment process, the pumps of the five RT remediation wells would be re-sized and replaced to maintain the current design flow capacity of the wells. In addition, new controls would be required to allow remote monitoring and shut down of the remediation wells in the event of a failure in the treatment process at NHPS.

Well Purge Water Storage and Sewer Connection

The remediation wells may require occasional purging if idled for a period of time to reduce turbidity. Since the remediation wells are projected to be under continuous operation, well purging is anticipated to be an infrequent event. For each well, the purging procedure would produce approximately 110,000 gallons of wastewater. The purge water would be temporarily detained in wastewater storage tanks such that it could be discharged to the sewer system at a rate that would not exceed the available capacity of the existing sewer line in Laurel Canyon Boulevard, which has been determined by City of Los Angeles Bureau of Sanitation to be 500 GPM. At this rate, the wastewater tanks would be emptied in approximately 4 hours based on 110,000 gallons from one purging operation. Because of the location of the remediation wells relative to existing roads, development, and infrastructure, two sets of wastewater tanks would be installed: one for the northernmost wells (RT-13 and RT-11), and one for the southernmost wells (RT-01, RT-14, and RT-15). Although it is not anticipated that more than one well would be purged at one time, this storage would accommodate the simultaneous purging of a well feeding the northernmost tanks and a well feeding the southernmost tanks. These tanks would be placed in the power line corridor. New sewer laterals connecting the tanks to the existing sewer line in Laurel Canyon Boulevard would be required (Figure 2-5).

Remediation Wells Collector Line

Flow from the remediation wells (RT-13, RT-11, RT-01, RT-14, and RT-15) would need to be separated from the flow from the remainder of the RT wells. Therefore, the remediation wells would be permanently disconnected from the existing 60-inch RT Well Field collector line. The existing collector line would remain in service for the balance of the RT wells. A new 36-inch-diameter collector line would be installed to transfer water from the remediation wells to the NHPS treatment facilities. This line would follow the high-voltage power line corridor for approximately 1 mile until reaching the intersection of Lankershim Boulevard and Hart Street, where the line would turn west along Hart Street for approximately 600 feet and then south on Morella Avenue for approximately 900 feet to NHPS (Figure 2-5). As discussed above, the proposed 6-inch sewer lateral from NHPS would be installed in the same alignment along Morella Avenue and Hart Street. A new pipeline connection from the NHPS forebay to the replacement River Supply Conduit trunk line would be also constructed under the project. This would involve about 150 feet of pipeline within Morella Avenue just north of Vanowen Street.

2.4 Project Construction

Construction of the proposed project is scheduled to begin in early 2019, with an anticipated in-service date for the treatment facility in mid-2021. At NHPS, this would include approximately 27 months of active construction and a 3-month commissioning period during which little or no active construction would occur. Construction at the RT Well Field and along the route of the collector line would be shorter in duration.

Construction activities at all locations (i.e., NHPS, the RT Well Field, and along the collector line route) would generally occur on weekdays and, in accordance with City ordinances, between 7:00 a.m. and 6:00 p.m. Although not anticipated, if occasional Saturday work were required, in accordance with City ordinances, it would occur between

8:00 a.m. and 6:00 p.m. No construction work would occur on Sundays or national holidays. For the purposes of the environmental analysis contained in this MND, it has been assumed that 20 workdays would be available each month for construction on average. This would generally account for holidays and rain days that would fall on weekdays, during which no construction activity would occur. Temporary staging and laydown areas for construction materials and equipment would be necessary. These would be accommodated within NHPS as feasible, at the LADWP lot across from NHPS on the northeastern corner of Vanowen Street and Morella Avenue, within the LADWP power line corridor, and/or within open lots in the vicinity of the project site leased for this purpose. To minimize on-street parking in the surrounding neighborhood, worker vehicles would be accommodated within the power line corridor or within lots in the vicinity of the project site leased for this purpose.

As discussed above, the NHPS property is approximately 3.5 acres in size, and approximately 2.25 acres are occupied by existing permanent facilities. In order to accommodate the proposed treatment facilities described above, the two parcels located in the northeast corner of the NHPS block, which are not currently owned by LADWP, would need to be acquired as part of the proposed project. Each of these parcels is occupied by single-story multi-family dwelling containing three to five individual units. The total size of the two parcels is about 0.4 acres. The proposed project may necessitate the acquisition of properties by eminent domain. With the acquisition of these parcels, LADWP would own the entire block encompassed by Vanowen Street to the south, Morella Avenue to the east, Dehougne Street to the north, and Hinds Avenue to the west.

Construction tasks for the project can be grouped together in phases based on their general purpose, schedule, and similarities in the type of work conducted. The phases would generally be sequential in that some must precede or be preceded by others at a given location, but a certain amount of overlap between phases may occur as construction proceeds in different locations. As shown in Table 2-1, construction at NHPS would consist of several phases, including demolition, clearing and grubbing; excavation for structures; excavation for and installation of piping and conduit; pouring of concrete foundations for structures; construction of structures; and the installation of the treatment equipment. In addition, some project construction work would occur outside the NHPS property, including the installation of the proposed RT remediation well collector line (remediation well collector line) and work at the well field related to the remediation well pumps and the well purge water storage.

The phases described below and indicated in Table 2-1 establish a conceptual scenario of the general level and type of construction activities associated with the project to help facilitate the environmental analysis. The estimates of worker commute trips, delivery and haul truck trips, and equipment use represent important factors in relation to assessing the nature and extent of certain environmental impacts that may be created during construction of the project.

Based on the conceptual construction schedule, as presented in Table 2-1, the number of daily on-site workers at NHPS during project construction would briefly peak at approximately 40 workers during the excavation for and installation of the treatment facility piping and conduit. The number of workers would otherwise generally range from approximately 20 to 35 workers during the most active period of construction from months 4 through 19. The installation of the collector line from the RT Well Field to NHPS would require approximately 13 workers, and the work at the remediation wells themselves would require 12 or fewer workers. In addition, a total of approximately 10 supervisory and office staff would be present at the various sites throughout project construction.

The average number of daily off-site truck trips related to work at NHPS would generally remain low throughout project construction, ranging from one to five round-trips per day. The work at the RT Well Field and along the well collector line route would also generate minimal truck trips related to the delivery of equipment and pipeline segments and related to excavation and backfilling where the collector line would be located within public streets. These truck trips would generally be distributed throughout the work day and not concentrated during a particular portion of the day.

Construction of the project would require the operation of various pieces of heavy equipment, including front-end loaders, bulldozers, backhoes, cranes, and concrete pump trucks. The type and level of use of this equipment would vary across the phases of work, with an estimated daily peak of about seven pieces of equipment at NHPS occurring during the excavation and backfilling for the structures and on-site pipelines. An average of approximately two to three pieces of equipment would be operating daily at the RT Well Field and along the collector line route.

The average number of workers, off-site truck trips, and equipment across the various phases and months of the proposed project is indicated in Table 2-1.

NHPS Construction

Mobilization

Mobilization would involve preparing the site for construction prior to the actual project-related construction activities. This would include activities such as removing temporary trailers and storage units from the site, securing the site, delivering construction equipment, and establishing field offices and other facilities necessary for construction to proceed. Mobilization would last about 1 month and require approximately five workers and minimal equipment and daily truck trips.

Demolition, Clearing, and Grubbing

Clearing and grubbing would involve the removal of vegetation from the project site, including stumps and roots that would interfere with construction of the project. This would include the removal of several large trees from the site. This phase would also include demolition of the existing residential structures located on the parcels in the northwest corner of the NHPS block (currently owned by LADWP) and the parcels in the northeast corner of the block, which would be acquired by LADWP as part of the proposed project. This phase would last about 1 month and require approximately eight workers per day, eight off-site truck round-trip per day, and an average of five pieces of equipment, including brush and stump chippers, dump trucks, a front-end loader, and a backhoe.

Table 2-1. Construction Schedule

Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
North Hollywood Pump Station																														
Mobilization	▨																													
Demolition, Clearing, and Grubbing		▨																												
Structural Excavation			▨	▨	▨																									
Pipeline Installation					▨	▨	▨	▨	▨																					
Conduit Installation								▨	▨	▨	▨																			
Structural Foundations										▨	▨	▨	▨	▨	▨															
Structure Development																▨	▨	▨	▨											
Equipment Installation																				▨	▨	▨	▨	▨	▨	▨	▨			
Commissioning																												▨	▨	▨
Average Daily Workers	5	8	16	21	34	32	43	37	24	31	26	27	29	26	31	32	37	34	20	5	5	5	5	5	5	5	5	5	5	5
Average Daily Truck Round-Trips	1	8	4	4	4	1	1	1	1	5	5	5	5	5	5	1	2	2	2	2	1	1	1	1	1	1	1	0	0	0
Average Daily Equipment Units	1	5	4	6	6	3	6	6	4	3	3	3	3	3	3	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0
Remediation Wells Collector Line																														
				▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨						
Average Daily Workers	0	0	0	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	7	7	0	0	0	0	0	0
Average Daily Truck Round-Trips	0	0	0	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	2	2	0	0	0	0	0	0
Average Daily Equipment Units	0	0	0	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	2	2	0	0	0	0	0	0
RT Well Field																														
													▨	▨	▨	▨	▨	▨	▨	▨	▨									
Average Daily Workers	0	0	0	0	0	0	0	0	0	0	0	0	5	5	5	5	5	13	13	8	5	0	0	0	0	0	0	0	0	0
Average Daily Truck Round-Trips	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2	2	2	2	2	2	2	0	0	0	0	0	0	0	0	0
Average Daily Equipment Units	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2	2	2	4	4	2	2	0	0	0	0	0	0	0	0	0
Office and Supervisory Personnel																														
Office and Supervisory Personnel	8	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	8	8	8	8	5	5	5

Structural Excavation

Preliminary geotechnical analysis of NHPS has determined that areas beneath the treatment facilities (the pre-filtration system, hydrogen peroxide storage, injection facility, UV reactor building, and the LPGAC system) should be over-excavated. This would entail the excavation and recompaction of approximately 15,000 cubic yards of soil on site. It is estimated that approximately 10% of this soil may be unsuitable as structural backfill and would be hauled off site. The remainder of the excavated soil would be stockpiled in the NHPS sump and forebay, which would be temporarily drained and removed from service. The soil would then be returned to the excavated areas and recompacted in vertical lifts to provide a solid foundation beneath the facilities. The structural excavation would take approximately 3 months to complete. An average of about 20 workers per day would be required. Because most of the excavated soil would stay on site, minimal off-site truck trips would be necessary. Several pieces of equipment would be required, including front-end loaders, backhoes, compactors, dump trucks, a bulldozer, and a water truck.

Pipeline Installation

The treatment facility would require the installation of 36-inch-diameter pipelines to conduct the remediation well water through the pre-filtration system, hydrogen peroxide injection facility, UV reactors, and LPGAC system, finally discharging into the contact tank. This would include the installation of meters, valves, and manifolds to enable control of flow to individual apparatus within the treatment equipment. The pipeline installation would entail excavation of trenches, placement of the pipeline, and backfilling and compaction of the trenches. The installation would take approximately 5 months to complete. Based on the conceptual project construction schedule, it would overlap with the structural excavation phase. An average of about 30 workers per day would be required. Because the excavated soil would stay on site and be returned to the pipeline trenches, few off-site truck trips would be necessary other than the delivery of pipe sections and fittings. Several pieces of equipment would be required, including front-end loaders, backhoes, dump trucks, a bulldozer, and a water truck; however, these would not represent additional pieces of on-site equipment since they would also be required for the structural excavation phase.

Conduit Installation

To enable the delivery of power to the individual pieces of treatment equipment, electrical conduit would be installed. The conduit installation would entail excavation of trenches, placement of the conduit, and backfilling and compaction of the trenches. The installation would take approximately 4 months to complete. Based on the conceptual project construction schedule, this phase would overlap with the pipeline installation phase. An average of approximately five workers per day would be required. Because the excavated soil would stay on site and be returned to the conduit trenches, minimal off-site truck trips would be necessary. Several pieces of equipment would be required, including a bulldozer, a front-end loader, a backhoe, dump trucks, a bulldozer, and a water truck; however, these would not represent addition pieces of on-site equipment since they would also be required for the pipeline installation phase.

Structural Foundations

The construction of the concrete foundations for the treatment facilities would involve placing reinforcing steel and pouring concrete. This process would take approximately 6 months to complete. Based on the conceptual project construction schedule, it would overlap with the conduit installation phase. It would require 30 or fewer workers per day. Concrete and reinforcing steel truck deliveries would average four per day. Equipment required for the foundation construction would include cranes (for the placement of the steel), concrete pumps, and gas-powered concrete vibrators.

Structure Development

The hydrogen peroxide injection vault and UV reactors would be located in enclosed buildings, and the hydrogen peroxide storage tanks would be located under a shade structure. Construction of these structures would involve the erection of framing, concrete or galvanized steel walls, and roofing. Erecting the structures would take approximately 4 months to complete. This phase would require an average of approximately 30 workers per day, the use of a lattice boom crane to lift and place materials, and relatively few daily truck trips to deliver building materials.

Equipment Installation

The equipment installation phase would involve the delivery, placement, and connection of the various treatment equipment, including the sand separators and cartridge filters, the hydrogen peroxide storage tanks, the hydrogen peroxide injectors, the UV reactors, and the LPGAC vessels. This equipment would be delivered to the site largely preassembled. This phase would also include the installation of ancillary equipment such as meters, alarms, analyzers, control panels, and HMIs, as well as equipment and furnishings for the control building, lab, and workshop. The equipment installation would take approximately 8 months to complete. Based on the conceptual project construction schedule, this phase would overlap with the structures phase. It would require fewer than eight workers per day; relatively few daily truck trips to deliver the equipment, although some large loads would be required; and the use of a truck crane to lift and place the equipment.

Contact Tank and Wastewater Tank

To provide for chlorine disinfection of the treated water after it exits the LPGAC vessels, a wall would be installed within the existing NHPS sump to create a segregated contact tank. A series of baffles would be installed within the tank to control the flow of water through the tank such that sufficient contact time is achieved. The contact tank would be connected to the sump by a new outlet line. In addition, the existing ammoniation and fluoridation stations would be connected via piping to the contact tank outlet to provide injection of ammonia and fluoride to chloraminate and fluoridate the water prior to distribution. The construction of the contact tank would require temporarily draining the sump and forebay.

To temporarily store the wastewater from the backflushing and backwashing operations before the wastewater is discharged into the sewer line, a 60,000-gallon steel tank would be erected on site. The tank would be approximately 25 feet in diameter and less than 20 feet in height. It would consist of prefinished components that would be manufactured off site and shipped to the site for assembly.

Construction of the contact tank and wastewater tank would occur during the equipment installation phase and would require relatively few workers, truck trips, and pieces of equipment.

RT Well Field Construction

Construction at the RT Well Field would include the replacement of the well head pumps and installation of new well controls at the five remediation wells. A total of twelve 20,000-gallon portable wastewater storage tanks would be placed in two separate locations in the power line corridor near the remediation wells (six near wells RT-13 and RT-11 and six near wells RT-01, RT-14, and RT-15). To connect the remediation wells to the tanks, 16-inch-diameter dedicated purge lines would be constructed within the corridor. To drain the tanks to the existing sewer line in Laurel Canyon Boulevard, new 6-inch-diameter sewer laterals would be installed via open-trench construction in Saticoy Street (approximately 700 linear feet) and Valerio Street (approximately 350 linear feet). Installation of the sewer laterals would require temporary lane closures, but it is anticipated that two-way traffic would be maintained during construction. The work at the RT Well Field would take approximately 9 months to complete and would require a peak of about 12 workers per day, and minimal equipment and daily truck trips.

Remediation Wells Collector Line Construction

The new remediation wells collector line would be installed primarily with an open-trench technique. The open trench would be 11 feet wide to install the 36-inch-diameter pipe. This width includes 2 feet on either side of the trench required to install shoring necessary to stabilize the trench walls during construction. Approximately 1 mile of the 1.25-mile pipeline route would be located within the LADWP power line corridor. Within the corridor, excavated material would be stockpiled adjacent to the trench, and after pipeline sections are installed, the material would be used as backfill. To avoid impacts to traffic, jacking beneath major road crossings along the corridor may be employed. The line would also need to be jacked beneath the Southern Pacific Railroad line. This procedure would require launching and receiving pits at either end of the jacking segment beneath the road. These pits would be located within the LADWP corridor.

Once the pipeline alignment reaches the intersection of Lankershim Boulevard and Hart Street, it would leave the LADWP power line corridor, and the open-trench construction would be conducted within the road surface along Hart Street and Morella Avenue, terminating at NHPS. Because of the width of the trench and the required construction access and safety zones adjacent to the trench, the portions of Hart Street and Morella Avenue under active construction would need to be temporarily closed to traffic. This work would be completed in smaller segments of several hundred feet to maintain as much access along the roads, at intersections, and to driveways as possible.

When practical, portions of the roadway under construction may also be reopened during non-work hours by removing barriers and placing steel plates over open trenches.

Excavated material would be loaded into dump trucks and hauled off site. After a sufficient length of trench is excavated and shored, a pipe section would be placed in the trench and joined to a preceding section of pipe. The 6-inch sewer lateral connecting the NHPS wastewater tank to the existing sewer line in Lankershim Boulevard would also be installed in this trench. Once three to four sections of pipe are installed in the trench, that portion of the trench would be backfilled to just below grade level with soil-cement slurry. After the pipe has been installed and the trench backfilled, the construction zone barriers would be removed, and the road surface would be repaved.

The pipeline installation is anticipated to take approximately 21 months to complete. On a daily basis, it would require an average of approximately 13 construction workers. The installation work would require the use of a backhoe and loader. A pavement cutter, compactor, and street sweeper would also be employed when necessary. An average of three daily truck round-trips would be required, but ten or more trips may be required when excavation and backfilling is occurring within the road right-of-way.

After completion of the remediation well collector line, the remediation wells would be physically disconnected from the existing well collector line and connected to the new remediation collector line.

System Commissioning

Before delivery of water to the potable system can begin, the proposed treatment facility would go through a testing and commissioning phase. Commissioning of the water treatment facility would consist primarily of testing equipment to ensure proper function, production, and water quality. System commissioning would require approximately 3 months to complete. The commissioning phase would occur between active construction and full facility operations and would require approximately five on-site personnel and no construction equipment.

2.5 Project Operations

Overview

The proposed project is intended achieve the RAOs and meet the Cleanup Goals for the project. The RAOs include protect human health and the environment by reducing the potential for exposure to COCs in groundwater at concentrations exceeding numerical or risk-based cleanup goals in compliance with ARARs and TBCs, limit the migration of COCs in groundwater in the vicinity of the RT Well Field at concentrations that prevent the beneficial use of the SFB, remove COCs from groundwater in the vicinity of the RT Well Field to maintain the beneficial uses of the SFB and restore the aquifer to the extent practicable, and restore LADWP's capability to operate its existing RT Well Field consistent with historical and planned use of the RT Well Field in a flexible manner. The Cleanup Goals are based on the MCLs for VOCs and the NL for 1,4-dioxane.

The proposed project is intended to draw contaminant plumes towards remediation wells and away from other production wells. The intent is to leave nearby non-remedy groundwater production wells off for a period of time until the remediation wells draw the contaminant plumes away from the nearby production wells. After the contaminant plumes are drawn away from the nearby production wells, these wells are expected to be able to be reactivated and operated without capturing the groundwater contaminant plumes. Human health and the environment would be protected by capturing and removing COCs from groundwater in the RT Well Field in compliance with ARARs and TBCs to maintain the beneficial uses of the SFB and restore the aquifer to the extent practicable. The beneficial use of the RT Well Field would be restored in accordance with the Los Angeles Regional Water Quality Control Board Basin Plan (LARWQCB 1994), which conforms to the State of California Antidegradation Policy (i.e., SWRCB Resolution 68-16 [SWRCB 1968]) and SWRCB 92-49.

There are three main elements related to the operation of the project as determined by the Interim RI/FS: a groundwater pumping plan for capture and control of the 1,4-dioxane, TCE, and PCE plumes at the RT Well Field; a treatment plan for removal of contaminants from the pumped water, consistent with applicable regulations and requirements and in a manner that protects public health and the environment; and a groundwater monitoring and compliance plan for ensuring that plume control is being achieved and that treated water meets all necessary state and federal drinking water standards. These components are discussed below.

Groundwater Pumping Plan

The Interim RI/FS provides details about the planned pumping of wells in the RT Well Field to support the proposed remedial action. The modeling conducted as part of the Interim RI/FS simulates a remedial action alternative that uses existing wells to achieve the RAOs. Achieving the RAOs is consistent with the long-term strategies outlined in the 2015 Los Angeles Urban Water Management Plan intended to "meet the City's water needs while maximizing local resources and minimizing the need to import water." The pumping plan establishes how various wells would be pumped in order to effectively contain and reduce groundwater contamination at impacting the RT Well Field. Based on groundwater flow simulations and fate/transport modeling, the various wells at the RT Well Field would operate as follows under the Proposed Plan.

Remediation Wells

The five remediation wells (RT-13, RT-11, RT-01, RT-14, and RT-15) are the southernmost wells in the RT Well Field and are the most affected by 1,4-dioxane, TCE, and PCE contamination. Continued pumping of these wells without treatment would pose a risk to drinking water quality. Nevertheless, it has also been determined through the Interim RI/FS groundwater modeling that the remediation wells are critical to effectively intercepting the contamination plumes in the area of the RT Well Field. Because of the existing level of contamination, the remediation wells would not be operated prior to project construction or during construction. However, after completion of the proposed project treatment system, the remediation wells would be operated continuously at full pumping capacity to contain the spread and migration of the contamination, reduce the size of the plumes, and remove contaminant mass from the groundwater basin. LADWP will continue to monitor groundwater conditions and will evaluate over time whether a reduction in pumping would be feasible to enhance operational flexibility and to coordinate this action with the other planned response actions.

Preferred/Secondary Wells

The preferred/secondary wells (RT-09, RT-08, RT-07, RT-06, RT-05, RT-04, RT-03, RT-02, RT-10, and RT-12) are located north of the remediation wells. Based on historical water quality data and analysis of future water quality conditions, the groundwater produced by these northern 10 wells would not be expected to contain COCs at concentrations exceeding MCLs and NLs. The northern 10 wells would be designated as preferred wells or secondary wells, whose pumping would be managed to avoid capture of contaminated groundwater. The groundwater produced by the preferred/secondary wells would bypass treatment.

Table 2-2 illustrates how the RT wells would be operated under the proposed pumping plan.

Table 2-2. RT Well Field Pumping Plan

Type of Well	Well Numbers[a]	Current Operation	During Project Construction	Future Operation[b]	
		Current–2018	*2019–2021*	*2021–2023*	*2023–Future*
Remediation	RT-13, RT-11, RT-01, RT-14, RT-15	None	None	Continuously at full pumping capacity	Continuously at full pumping capacity
Preferred/ Secondary	RT-09, RT-08, RT-07, RT-06, RT-05, RT-04, RT-03, RT-02, RT-10, RT-12	During higher demand periods	During higher demand periods	None	During higher demand periods

Notes:

[a] Wells listed in order from north to south within each well category.

[b] LADWP would be monitoring future conditions and adjusting pumping as appropriate.

Treatment Plan

1,4-dioxane is currently on the USEPA Contaminant Candidate List as a contaminant not subject to any promulgated or proposed national primary drinking water regulations, and a best available technology (BAT) for treatment is yet to be determined. The current BAT for removal of TCE and PCE is LPGAC or air stripping with packed tower aeration, but these methods have proven ineffective at removing 1,4-dioxane. However, AOP treatment has been demonstrated to be successful at removing 1,4-dioxane with up to greater than 99% effectiveness. AOP treatment has also been proven to remove TCE and PCE from water to below the established MCLs. Therefore, as determined in the Interim RI/FS, AOP is the recommended treatment technology under the proposed remedial action.

AOP is a treatment process that removes organic contaminants by oxidation through chemical reactions with hydroxyl radicals, which are powerful oxidizers. Using the hydroxyl radicals, contaminants in water are rapidly converted into benign inorganic compounds. For the proposed project, the AOP mechanism would involve the use of hydrogen peroxide and UV light. The water from the remediation wells would first be directed through a pre-filtration system to remove sand and small particles. After pre-filtration, the water would be injected with hydrogen peroxide (27.5% concentration) and then flow through the UV reactors. Exposure to UV light breaks down hydrogen peroxide molecules (H_2O_2) into two hydroxyl radicals (OH). The hydroxyl radicals would then oxidize 1,4-dioxane, TCE, and PCE in the water, breaking them down into benign byproducts.

Table 2-3 indicates the preliminary criteria for the proposed treatment system utilizing AOP based on the expected maximum contamination level of the influent water and the combined flow rate of the remediation wells under continuous operation over a 20-year period.

Table 2-3. Treatment Criteria

Contaminant	MCL or NL (µg/L)	Maximum contaminant level (µg/L)	Safety Factor	Design Influent (µg/L)	Design Effluent (µg/L)	Design Flow Rate (CFS/GPM)
1,4-Dioxane	1.00	6.50	2.0	13.00	0.25	38.2 / 17,145
TCE	5.00	25.00	2.0	50.00	0.50	
PCE	5.00	5.00	2.0	10.00	0.50	

Groundwater Monitoring

In addition to the standard water quality monitoring and testing conducted by LADWP related to the delivery of potable water within its service area, the proposed project would provide additional water quality monitoring and compliance actions consisting of a combination of anticipated permit stipulations and LADWP water quality due diligence actions. The Groundwater Monitoring and Compliance Plan would include the follow components.

The DDW Extremely Impaired Source Water Quality Surveillance Plan

In accordance with the DDW's Policy Memorandum 97-005, this plan would be developed and implemented to provide early warning if unexpectedly high concentrations and/or new contaminants are encountered within the capture zone of the well field. Early warning provides an opportunity to take appropriate actions if required to reduce the risks posed to production wells by unexpected changes in groundwater quality.

Remedial Action Progress Monitoring Plan

This plan would be developed and implemented to monitor the COC contaminant plumes to evaluate progress towards achieving the RAOs and meeting the Cleanup Goals. This data generated from the implementation of this plan would be used to coordinate the response action with actions being implemented by others, and to adjust pumping as is appropriate under the circumstances.

Operation and Maintenance

As discussed above, after commissioning, the treatment system for the remediation wells is expected to operate continuously to achieve the RAOs and meet the Cleanup Goals. The treatment facility could be operated to meet all requirements established through the NCP process, DDW permitting process, and in accordance with applicable public health standards associated with the delivery of potable water.

The proposed project would require minimal operation and maintenance activities and few on-site personnel, even assuming the remediation wells are operated full time at capacity. The dosing for the hydrogen peroxide would be approximately 16–20 parts per million (16–20 milligrams/liter) in the water entering the UV reactors. The hydrogen peroxide dose would be determined by many factors, including 1,4-dioxane and VOC levels, competition of other scavengers for the hydroxyl radicals, water quality, and flow rate. However, the total capacity of the hydrogen peroxide storage tanks would be sufficient to provide about 30 days of operational storage. To ensure an adequate supply is always available for operations, the four storage tanks would all be refilled approximately every month on a rotating basis. The refilling of one tank would require one truck round-trip and two personnel. Hydrogen peroxide would be transferred from the truck off-loading area to the storage tanks.

The UV reactor lamps are expected to last approximately 15,000 hours. Assuming that the lamps in the main reactors were running continuously, the lamps would need to be changed about every 20 months. Lamp replacement would require about one truck round-trip per day and two personnel for about 1 week. Because the lamps contain mercury, they would be temporarily stored on site in the spent UV lamp storage room and then returned to the manufacturer for recycling.

The carbon medium in the 24 LPGAC vessels would need to be replaced about once every 3 years, assuming full time operation of the remediation wells. During this replacement process, the carbon medium in one to two vessels would be replaced every week until the change-out of all vessels was completed over a 3- to 6-month period. The spent carbon medium would be removed and transported by truck to a recycling facility. The vessels would be disinfected, loaded with fresh carbon medium, and backwashed. This would require three workers and approximately two to four truck trips per week.

The backwashing operation would require about 24,000 gallons of water per vessel or about 576,000 gallons for the change-out of all the vessels. In addition, the regular backflushing of the LPGAC vessels would require 12,000 gallons per vessel. Because each vessel would be backflushed every 2 to 3 weeks, the backflushing operation would require 7 million gallons of water annually. This water would be provided by the NHPS supplies. Based on the anticipated maximum number of backwashing and backflushing operations per year, the total annual water consumption for the project would be about 24 acre-feet, equivalent to the annual needs of about 72 households in the LADWP service area.

The wastewater produced during backwashing and backflushing would be temporarily detained in an on-site wastewater tank and released to the existing sewer system at a rate that would not exceed the available capacity in the sewer lines. Well purging would also produce about 122,000 gallons of wastewater that would also be temporarily detained on site and released at a controlled rate to the sewer system. However, even assuming that the remediation wells operate continuously, the requirement for well purging is anticipated to be very infrequent.

The water from the LPGAC would be injected with chlorine supplied by the existing NHPS chlorine gas system, which has the capacity to support the proposed project flows. Two replacement chlorine cylinders (900 pounds each) would be delivered to NHPS by truck every 2 to 3 days.

2.6 Discretionary Approvals Required for the Project

Numerous approvals and/or permits would be required to implement the proposed project. This MND would be used to facilitate granting of such approvals and permits by various state and local agencies having jurisdiction over one or more aspects of the project. These approvals and permits may include, but may not be limited, to the items listed below.

LADWP is the lead agency for the proposed project pursuant to CEQA Guidelines, Section 15367. The proposed project would require the following discretionary approvals from LADWP:

- Adoption of this MND by the City of Los Angeles Board of Water and Power Commissioners with a finding that it complies with CEQA
- Selection of the interim remediation action, as set forth in a decision document, following the publication of the Proposed Plan, Interim RI/FS, and related documents, the holding of a public comment period and public meeting, and consideration of public comment, consistent with the NCP

Approvals from other regulatory agencies or entities may also be required as follows:

- State Water Resources Control Board, Division of Drinking Water (DDW)
    - Amendment of the existing Domestic Water Supply Permit for operation of new treatment facilities
- State Water Resources Control Board (SWRCB)
    - Approval of partial funding from public sources, such as the Proposition 1 funds (Funding would be provided in full or in part through an agreement with the State Water Resources Control Board using funds from Proposition 1. The contents of this document do not necessarily reflect the views and policies of the foregoing, nor does mention of trade names or commercial products constitute endorsement or recommendation for use.)
    - Notice of Intent to comply with the General Construction Activity NPDES Permit (Order No. 2009-0009-DWQ, as amended by Order No. 2010-0014-DWQ, NPDES No. CAS000002)
- California Department of Industrial Relations, Division of Occupational Safety and Health (CAL/OSHA), Mining and Tunneling Unit
    - Permit for construction of trenches or excavations 5 feet or deeper that will be entered by construction workers

  - Tunnel classifications for construction operations covered under Section 8400 through 8469, Tunnel Safety Orders, of the California Code of Regulations.
- Southern Pacific Railroad: Easement for pipeline installation under the railroad
- Los Angeles Regional Water Quality Control Board
  - Notice of Intent to comply with the General National Pollutant Discharge Elimination System (NPDES) Permit for Discharges of Groundwater from Construction and Project Dewatering to Surface Waters (Order No. R4-2013-0095, NPDES No. CAG994004)

References

LARWQCB (Los Angeles Regional Water Quality Control Board). 1994. *Los Angeles Regional Water Quality Control Board Basin Plan*.

SWRCB (State Water Resources Control Board). 1968. Resolution 68-16, Statement of Policy with Respect to Maintaining High Quality of Waters in California.

3 INITIAL STUDY CHECKLIST

The following discussion of potential environmental effects was completed in accordance with Section 15063(d)(3) of the CEQA Guidelines (14 CCR 15000 et seq.) to determine if the proposed project may have a significant effect on the environment.

1. **Project title:**

Proposed North Hollywood Central Groundwater Treatment Action

2. **Lead agency name and address:**

Los Angeles Department of Water and Power
Environmental Affairs
111 North Hope Street, Room 1044
Los Angeles, California 90012

3. **Contact person and phone number:**

Nadia Parker
Environmental Planning and Assessment
Los Angeles Department of Water and Power
213.367.1745

4. **Project location:**

- North Hollywood Pump Station (11805 Vanowen Boulevard, Los Angeles, California 91605)
- Rinaldi-Toluca Well Field (located within an approximately 150-foot-wide Los Angeles Department of Water and Power high-voltage power line corridor east of the Hollywood Freeway in Los Angeles, California)
- Roadway rights-of-way near the North Hollywood Pump Station and the Rinaldi-Toluca Well Field (specifically, Morella Avenue, from Vanowen Street to Hart Street; Hart Street, from Morella Avenue to Lankershim Boulevard; and, several hundred feet along Valerio Street and Saticoy Street, near their intersections with Lauren Canyon Boulevard)

5. **Project sponsor's name and address:**

Los Angeles Department of Water and Power
111 North Hope Street
Los Angeles, California 90012

6. **City Council Districts:**

District 2

7. Neighborhood Council Districts:

North Hollywood Northeast Neighborhood Council

8. General plan designation:

- North Hollywood Pump Station General Plan Designation: Public Facilities; Low Medium II Residential
- Rinaldi-Toluca Well Field General Plan Designation: Public Facilities
- Roadway rights-of-way General Plan Designation: Morella Avenue (Local Street, Standard); Hart Street (Collector); Valerio Street (Local Street, Standard); Saticoy Street (unidentified [i.e., no designation])

9. Zoning:

- North Hollywood Pump Station Zoning Designations: PF-1VL (Public Facilities); R3-1 (Multiple Dwelling Zone); RD1.5-1 (Restricted Density Multiple Dwelling Zone)
- Rinaldi-Toluca Well Field Zoning Designation: PF-1VL (Public Facilities)
- Roadway rights-of-way Zoning Designation: Morella Avenue (Local Street, Standard); Hart Street (Collector); Valerio Street (Local Street, Standard); Saticoy Street (unidentified [i.e., no designation])

10. Description of project:

Refer to Section 2 of this Initial Study

11. Surrounding land uses and setting:

Refer to Section 2.1 of this Initial Study

12. Other public agencies whose approval is required:

- State Water Resources Control Board
- California Department of Industrial Relations, Division of Occupational Safety and Health
- Southern Pacific Railroad
- Los Angeles Regional Water Quality Control Board

13. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, has consultation begun?

LADWP has initiated consultations pursuant to Public Resources Code, Section 21080.3.1, with the following seven tribes: Fernandeno Tataviam Band of Mission Indians, the Gabrieleno Band of Mission Indians – Kizh

Nation, Gabrieleno/Tongva San Gabriel Band of Mission Indians, Gabrielino/Tongva Nation, Gabrielino Tongva Indians of California Tribal Council, Gabrielino-Tongva Tribe, and the San Fernando Band of Mission Indians. Additional discussion about tribal consultation conducted for this project can be found in Section 3.17.

Note: Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process (see Public Resources Code, Section 21083.3.2). Information may also be available from the California Native American Heritage Commission's Sacred Lands File per Public Resources Code, Section 5097.96, and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that Public Resources Code, Section 21082.3(c), contains provisions specific to confidentiality.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact," as indicated by the checklists on the following pages.

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

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 ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Charles C. Holloway	7/23/2018
Signature	Date

EVALUATION OF ENVIRONMENTAL IMPACTS

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an Environmental Impact Report (EIR) is required.
4. "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less-Than-Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analyses," as described in (5) below, may be cross-referenced).
5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
    a. Earlier Analysis Used. Identify and state where they are available for review.
    b. Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
    c. Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
7. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
9. The explanation of each issue should identify:
   a. The significance criteria or threshold, if any, used to evaluate each question; and
   b. The mitigation measure identified, if any, to reduce the impact to less than significance.

3.1 Aesthetics

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
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?	☐	☐	☒	☐

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

No Impact. Scenic vistas generally refer to views of expansive open space areas or other natural features, such as mountains, undeveloped hillsides, large natural water bodies, or coastlines. Less commonly, certain urban settings or features, such as a striking or renowned skyline, may also represent a scenic vista. Under CEQA, scenic vistas also generally, although not exclusively, refer to views that are accessible to broader segments of the public, rather than those available to a limited number of private entities. A significant effect to scenic vistas could occur if the proposed project were to obstruct or compromise a vista or if it were to degrade or remove a scenic resource that can be observed from a vista.

The components of the proposed project would be spread among several locations: the North Hollywood Pump Station (NHPS), pipeline alignments, and the RT Well Field. The NHPS is located within the North Hollywood–Valley Village Community Plan, a land use plan adopted by the City of Los Angeles for the North Hollywood community. This plan does not designate any scenic vistas or other visual resources in the community plan area (City of Los Angeles 1996). At NHPS, the proposed project would involve installation and operation of groundwater treatment equipment. The NHPS is an existing LADWP facility, which is currently used for water treatment and distribution purposes. The NHPS does not contain any scenic resources, and there are no scenic resources in the vicinity of the site. Distant views of the Verdugo Mountains are available from some of the roadways surrounding the NHPS block, particularly from eastbound travel lanes along the east–west trending Vanowen the Dehougne Streets. (The Verdugo Mountains are approximately 4 miles northeast of the NHPS.) However, views of the mountains are confined to the linear corridors created by these roadways and are not generally observed to the north or south of these roadways, due to existing intervening development and landscaping. As such, installation of new equipment and structures at NHPS would not have the potential to adversely affect views of the distant mountains.

The proposed pipelines would be located underground and, therefore, would not permanently affect views. Temporary, minor effects may occur during construction as a result of construction equipment, construction fencing, and trenching activities within the rights-of-way of the affected roadways (Hart Street and Morella Avenue), as well as within the LADWP power line corridor. While the presence of equipment and fencing may temporarily compromise existing, distant views of mountains that are provided along the affected roadway corridors and along the LADWP power line corridor, the equipment and fencing would be present in each work area for a limited time. As such, installation of the proposed pipelines would not have the potential to adversely affect views of the distant mountains.

The proposed remediation wells are located within the Sun Valley–La Tuna Canyon Community Plan, a land use plan adopted by the City of Los Angeles for the Sun Valley community. This plan calls for the preservation of existing views of hillside and mountainous areas (City of Los Angeles 1999). The remediation wells are not located within a hillside area or a mountainous area; rather, they are located within an existing power line corridor, which is surrounded by flat topography and dominated by urban development. As such, proposed activities involving the remediation wells would not have the potential to affect or visually degrade any hillside or mountainous areas associated with scenic vistas that can be viewed from surrounding areas.

Proposed activities involving the remediation wells would consist of improvements to the existing well pumps and installation of 12-foot tall purge water storage tanks. The proposed purge water storage tanks would be low in profile (approximately 12 feet in height), especially compared to the surrounding transmission lines and steel lattice towers that are situated throughout the power line corridor. The tanks would also be limited in massing, occupying a minor portion of the corridor's width. For these reasons, installation of the proposed purge water storage tanks within the power line corridor would not have the potential to adversely affect the distant views of the mountains. No impact would occur to scenic vistas as a result of the proposed project.

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 officially designated State Scenic Highway is a portion of State Highway 2 that extends through the San Gabriel Mountains, beginning just north of the City of La Cañada Flintridge (Caltrans 2011). The portion of State Highway 2 that is officially designated as a State Scenic Highway is located approximately 12 miles northeast of the project site. Due to this distance, the project site is not within the viewshed of this State Scenic Highway.

The City's land use plans also designate certain roadways within the City as Scenic Highways. The land area that is visible from and normally contiguous to Scenic Highways are called "Scenic Corridors." The City-designated Scenic Highway that is nearest to the project is Sunland Boulevard (City of Los Angeles 2012). The designated scenic segment of Sunland Boulevard is approximately 2 miles northeast of the proposed purge water storage tanks and 2.4 miles northeast of the NHPS. The proposed project would not be visible from the scenic segment of Sunset Boulevard, due to intervening distance and urban development that lies between the project site and this roadway. As such, development of the project would not have the potential to affect views that can be observed from a City-designed scenic highway.

Therefore, no impact on scenic resources within a state (or local) scenic highway would occur as a result of the proposed project.

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

Less-Than-Significant Impact. Under current conditions, the NHPS is owned by LADWP and is developed with existing water treatment and distribution facilities. The proposed project would involve the addition of more water treatment facilities to the NHPS site. The new facilities would be consistent with the current industrial appearance of the NHPS and would be a maximum of 36 feet in height, which is generally consistent with the heights of the existing NHPS facilities. As such, the proposed project would not substantially alter or degrade the appearance of the NHPS and its surroundings.

Three parcels that are currently developed with residential structures and one vacant parcel located to the north of the existing NHPS facilities would be converted to public facilities use as part of the proposed project. Specifically, these areas of the site would be used for the UV reactor building, storage rooms, and work rooms, all of which range from one to two stories in height. Conversion of these parcels from residential and vacant land uses to public facilities use would change their appearance. However, the new facilities that would be constructed on these parcels would be consistent in appearance, function, and size with the existing facilities that are on the majority of the block on which the NHPS is located. The residential parcels in the northern section of the NHPS block are outliers relative to the rest of this block. Converting these parcels to public facilities use would be consistent with the appearance of the adjacent uses and would, in fact, bring those parcels into consistency with the adjoining parcels to the south. As such, while the appearance of these parcels would change after project implementation, the visual character and quality of the parcels and their surroundings would not be substantially degraded.

The proposed pipelines would be located underground and, therefore, would not permanently affect visual character or quality of the area. Temporary, minor effects may occur during construction as a result of construction equipment, construction fencing, and trenching activities within the rights-of-way of the affected roadways (namely, Hart Street and Morella Avenue), as well as within the LADWP power line corridor. While the presence of equipment and fencing may temporarily compromise the existing visual character and quality of the affected roadways and the power line corridor, the equipment and fencing would be present in each work area for a limited time. Once construction is complete, the affected roadways would be consistent with existing conditions in their visual character and quality. For these reasons, while the appearance of the pipeline alignments would be temporarily altered during construction, the visual character and quality of the alignments and the surroundings would not be substantially degraded.

As described under Section 3.1(a), proposed activities involving the remediation wells would consist of improvements to the existing well pumps and installation of purge water storage tanks. These activities would take place within the existing LADWP power line corridor, between 0.6 miles and 1 mile northwest of the NHPS. The remediation well improvements would occur at existing well pumps and would not substantially alter the appearance of the wells over existing conditions. Installation of the purge water storage tanks would introduce a new visual element to the power line corridor. The purge water storage tanks would be installed near the power line corridor's intersections with Saticoy Street, Runnymede Street, Valerio Street, and Laurel Canyon Boulevard. Approximately twelve 20,000-gallon tanks would be installed. The proposed purge water storage tanks would be low in profile (approximately 12 feet in height), especially compared to the surrounding transmission lines and steel lattice towers that are situated throughout the power line corridor. The tanks would also be limited in massing, occupying a minor portion of the corridor's width. Furthermore, under existing conditions, the power line corridor is developed with four 230 kV transmission lines suspended on two separate steel lattice transmission towers. In addition, two 35 kV sub-transmission lines suspended from a single wood pole are located in the corridor. There are also groundwater well pumps situated along the corridor, which consist of aboveground piping surrounded by chain-link fencing. As such, the power line corridor already contains numerous public utilities. As such, the proposed purge water storage tanks would be consistent with existing uses within the corridor and would not be visually prominent due to their size and the surrounding transmission towers and lines. Additionally, the corridor is surrounded with fencing, walls, and landscaping in locations along its alignment, which would help screen the new tanks from public view. For these reasons, installation of the purge water storage tanks would not substantially degrade existing the character or quality of the power line corridor or its surroundings.

In summary, while portions of the proposed facilities would be visible from surrounding public areas and would therefore change the appearance of the NHPS and the power line corridor, the proposed equipment would be consistent with the existing appearance of the NHPS and the power line corridor as areas used for public utility purposes. Furthermore, the new structures would be consistent with the size of the existing facilities. For these reasons, the existing visual character of the site and its surroundings would not be substantially degraded by the proposed project. Impacts from the proposed project to visual character and quality would be less than significant.

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. Lighting levels on the proposed project site would not be substantially altered by the project. Security lighting is already provided at the NHPS for the existing facilities. Although some additional directed facility security lighting would be provided by the project, it would not create a substantial new source of light relative to the existing condition. No new lighting would be associated with the improvements at the RT Well Field or with the new pipelines.

The proposed equipment would consist of a variety of building materials ranging from non-reflective surfaces to surfaces that may result in a limited source of glare (i.e., galvanized steel). However, none of the new equipment is expected to generate a continuous, significant source of glare. As such, both lighting and glare impacts from the proposed project would be less than significant.

References

Caltrans (California Department of Transportation). 2011. California Scenic Highway Mapping System. Last updated September 7, 2011. Accessed March 23, 2018. http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/index.htm.

City of Los Angeles. 1996. *North Hollywood – Valley Village Community Plan*. Updated May 14, 1996. Accessed April 16, 2018. http://planning.lacity.org/complan/valley/nhlpage.htm.

City of Los Angeles. 1999. *Sun Valley – La Tuna Canyon Community Plan*. Adopted August 13, 1999. Accessed March 8, 2018. https://planning.lacity.org/complan/valley/svypage.htm.

City of Los Angeles. 2012. *General Plan Land Use Map – Sun Valley-La Tuna Canyon Community Plan*. Last updated June 13, 2012. Accessed March 23, 2018. https://planning.lacity.org/complan/valley/svypage.htm.

3.2 Agriculture and Forestry Resources

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.				
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?	☐	☐	☐	☒

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 is not located on Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as mapped by the Farmland Mapping and Monitoring Program (FMMP 2016). Therefore, the proposed project would not convert Farmland to non-agricultural uses, and no impact would occur.

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

No Impact. The project site is not under a Williamson Act contract (DOC 2016), and no effects would occur related to conflicts with Williamson Act contracts. The project site is currently zoned PF-1VL (Public Facilities); R3-1 (Multiple Dwelling Zone); and RD1.5-1 (Restricted Density Multiple Dwelling Zone) and is located within an Urban Agriculture Incentive Zone (UAIZ). The UAIZ was established by the City to encourage agriculture in urban areas through reductions in property taxes for qualifying properties used for agricultural purposes for at least 5 years. A property owner can submit a UAIZ application to the City, and if the property qualifies, a UAIZ contract can be issued for tax reductions (City of Los Angeles 2017, 2018).

The NHPS property is used by LADWP for water treatment and distribution purposes and is not accessible to the general public. As such, urban agricultural activities would not be suitable within this property. While the NHPS is located within a broader UAIZ, it is not suitable for agricultural purposes due to the current function.

Therefore, there would be no impacts related to conflicts with existing agricultural zoning.

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. No forest land, timberland, or Timberland Production areas (as defined in California Public Resources Code, Sections 12220(g), 4526, and 51104(g)), are located within or adjacent to the project site. Therefore, the proposed project would not conflict with existing zoning for forest land, timberland, or Timberland Production areas, and no impact would occur.

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

No Impact. As discussed in Section 3.2(c), no forest land is located on the project site; no forest land would be lost or converted by the proposed project, and no impact would occur.

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 is surrounded primarily by single- and multi-family residential, as well as some recreational uses, commercial uses, and light manufacturing uses. The project site is highly urbanized. No Farmland or forest land exists in the vicinity of the project site. As such, the proposed project would not result in changes to the existing environment that could result in conversion of Farmland or forest land to non-agricultural or non-forest uses. No impact would occur.

References

City of Los Angeles. 2017. Applications - Urban Agriculture Incentive Zone (UAIZ). September 20, 2017. Accessed April 11, 2018. https://planning.lacity.org/Forms_Procedures/7836.pdf.

City of Los Angeles. 2018. "City of Los Angeles Urban Agriculture Incentive Zone Application Process." Accessed April 11, 2018. https://planning.lacity.org/ordinances/docs/UrbanAgriculture/adopted/flowchart.pdf.

DOC (California Department of Conservation). 2016. *Los Angeles County Williamson Act FY 2015/2016*. [map]. 1:120,000. Sacramento, California: California Department of Conservation, Division of Land Resource Protection. 2016. Accessed March 8, 2018. http://www.consrv.ca.gov/dlrp/lca/Pages/Index.aspx.

FMMP (Farmland Mapping and Monitoring Program). 2016. Los Angeles County Important Farmland 2016. [map]. 1:120,000. Sacramento, California: Farmland Mapping and Monitoring Program. Published July 2017. Accessed March 8, 2018. http://www.conservation.ca.gov/dlrp/fmmp/Pages/LosAngeles.aspx.

3.3 Air Quality

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations.				
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 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?	☐	☐	☒	☐

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

Less-Than-Significant Impact. The proposed project site is located within the South Coast Air Basin (Basin), which includes the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties and all of Orange County, and is within the jurisdictional boundaries of the South Coast Air Quality Management District (SCAQMD). The project site is located in the community of North Hollywood in the City of Los Angeles.

The SCAQMD administers the Basin's Air Quality Management Plan (AQMP), which is a comprehensive document outlining an air pollution control program for attaining the California Ambient Air Quality Standards (CAAQS) and National Ambient Air Quality Standards (NAAQS). The most recently adopted AQMP for the Basin is the 2016 AQMP (SCAQMD 2017). The 2016 AQMP focuses on available, proven, and cost-effective alternatives to traditional strategies while seeking to achieve multiple goals in partnership with other entities seeking to promote reductions in greenhouse gases (GHGs) and toxic risk, as well as efficiencies in energy use, transportation, and goods movement (SCAQMD 2017).

The purpose of a consistency finding with regard to the AQMP is to determine if a project is consistent with the assumptions and objectives of the regional air quality plans and if it would interfere with the region's ability to comply with federal and state air quality standards. The SCAQMD has established criteria for determining consistency with the currently applicable AQMP in Chapter 12, Sections 12.2 and 12.3, of the SCAQMD CEQA Air Quality Handbook. These criteria are as follows (SCAQMD 1993):

- **Consistency Criterion No. 1:** Whether the project would result in an increase in the frequency or severity of existing air quality violations, cause or contribute to new violations, or delay timely attainment of the ambient air quality standards or interim emission reductions in the AQMP.
- **Consistency Criterion No. 2:** Whether the project would exceed the assumptions in the AQMP or increments based on the year of project buildout and phase.

To address the first criterion, project-generated criteria air pollutant emissions have been estimated and analyzed for significance and are addressed under Section 3.3(b). Detailed results of this analysis are included in Appendix A, Air Quality and Greenhouse Gas Emissions Calculations. As presented in Section 3.3(b), construction and operation of the project would not generate criteria air pollutant emissions that exceed the SCAQMD's thresholds, and it would therefore be consistent with Criterion No. 1.

The second criterion regarding the project's potential to exceed the assumptions in the AQMP or increments based on the year of project buildout and phase is primarily assessed by determining consistency between the project's land use designations and its potential to generate population growth. In general, projects are considered consistent with, and not to conflict with or obstruct implementation of, the AQMP if the growth in socioeconomic factors is consistent with the underlying regional plans used to develop the AQMP (per Consistency Criterion No. 2 of the SCAQMD CEQA Air Quality Handbook). The SCAQMD primarily uses demographic growth forecasts for various socioeconomic categories (e.g., population, housing, employment by industry) developed by the Southern California Association of Governments (SCAG) for its Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) (SCAG 2016). This document, which is based on general plans for cities and counties in the Basin, is used by SCAQMD to develop the AQMP emissions inventory (SCAQMD 2017).[1] The SCAG 2016 RTP/SCS, and associated Regional Growth Forecast, are generally consistent with the local plans; therefore, the 2016 AQMP is generally consistent with local government plans.

The proposed project consists of the treatment of potable groundwater wells at the RT Well Field due to the presence of COCs in the groundwater. This would assist in the restoration of beneficial uses of the groundwater basin and restore LADWP's capability to operate its existing RT Well Field consistent with historical use and future need. As such, since the proposed project is not anticipated to result in population growth or generate an increase in employment that would conflict with existing employment population projections, it would not conflict with the 2016 AQMP or exceed the assumptions in the 2016 AQMP. Accordingly, the project is consistent with the SCAG RTP/SCS forecasts used in the SCAQMD AQMP development.

In summary, based on the considerations presented for the two criteria, impacts relating to the project's potential to conflict with or obstruct implementation of the applicable AQMP would be less than significant.

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

Less-Than-Significant Impact. A quantitative analysis was conducted to determine whether proposed construction and operational activities for the proposed project might result in emissions of criteria air pollutants that may cause exceedances of the NAAQS or CAAQS, or contribute to existing nonattainment of ambient air quality standards. Criteria air pollutants include ozone (O_3), nitrogen dioxide (NO_2), carbon monoxide (CO), sulfur dioxide (SO_2), particulate matter with an aerodynamic diameter less than or equal to 10 microns (PM_{10}), particulate matter with an aerodynamic diameter less than or equal to 2.5 microns ($PM_{2.5}$), and lead. Pollutants that are evaluated herein include VOCs and oxides of nitrogen (NO_x), which are important because they are precursors to O_3, as well as CO, sulfur oxides (SO_x), PM_{10}, and $PM_{2.5}$.

---

[1] Information necessary to produce the emissions inventory for the Basin is obtained from the SCAQMD and other governmental agencies, including the California Air Resources Board, Caltrans, and SCAG. Each of these agencies is responsible for collecting data (e.g., industry growth factors, socioeconomic projections, travel activity levels, emission factors, emission speciation profile, and emissions) and developing methodologies (e.g., model and demographic forecast improvements) required to generate a comprehensive emissions inventory. SCAG incorporates these data into its Travel Demand Model for estimating/projecting vehicle miles traveled and driving speeds. SCAG's socioeconomic and transportation activities projections in their 2016 RTP/SCS are integrated in the 2016 AQMP (SCAQMD 2017).

Regarding NAAQS and CAAQS attainment status,[2] the Basin is designated as a nonattainment area for federal and state O_3 standards, and federal and state $PM_{2.5}$ standards (CARB 2017; USEPA 2018a). The Basin is also designated as a nonattainment area for state PM_{10} standards; however, it is designated as an attainment area for federal PM_{10} standards. The Basin is designated as an attainment area for federal and state CO standards, federal and state NO_2 standards, and state SO_2 standards. Although the Basin has been designated as nonattainment for the federal rolling 3-month average lead standard, it is designated attainment for the state lead standard.[3]

Construction of the proposed project would result in emissions of criteria air pollutants for which CARB and the USEPA have adopted ambient air quality standards (i.e., the NAAQS and CAAQS). Projects that emit these pollutants have the potential to cause or contribute to violations of these standards. The SCAQMD CEQA Air Quality Handbook, as revised in March 2015, sets forth quantitative emission significance thresholds for criteria air pollutants, which, if exceeded, would indicate the potential for a project to contribute to violations of the NAAQS or CAAQS. Table 3.3-1 lists the SCAQMD Air Quality Significance Thresholds set forth in the SCAQMD CEQA Air Quality Handbook (SCAQMD 2015).

A project would result in a substantial contribution to an existing air quality violation of the NAAQS or CAAQS for O_3, which is a nonattainment pollutant, if the project's construction or operational emissions would exceed the SCAQMD VOC or NO_x thresholds shown in Table 3.3-1. These emission-based thresholds for O_3 precursors are intended to serve as a surrogate for an "ozone significance threshold" (i.e., the potential for adverse O_3 impacts to occur) because O_3 itself is not emitted directly, and the effects of an individual project's emissions of O_3 precursors (VOCs and NO_x) on O_3 levels in ambient air cannot be determined through air quality models or other quantitative methods.

---

[2] An area is designated as in attainment when it is in compliance with the NAAQS and/or the CAAQS. These standards are set by the U.S. Environmental Protection Agency (USEPA) and California Air Resources Board (CARB), respectively, for the maximum level of a given air pollutant that can exist in the outdoor air without unacceptable effects on human health or the public welfare. Attainment = meets the standards; attainment/maintenance = achieve the standards after a nonattainment designation; nonattainment = does not meet the standards.

[3] The phase out of leaded gasoline started in 1976. Since gasoline no longer contains lead, the project is not anticipated to result in impacts related to lead; therefore, it is not discussed in this analysis.

Table 3.3-1. SCAQMD Air Quality Significance Thresholds

Criteria Pollutants Mass Daily Thresholds		
Pollutant	*Construction*	*Operation*
VOC	75 lb/day	55 lb/day
NO_x	100 lb/day	55 lb/day
CO	550 lb/day	550 lb/day
SO_x	150 lb/day	150 lb/day
PM_{10}	150 lb/day	150 lb/day
$PM_{2.5}$	55 lb/day	55 lb/day
Lead[a]	3 lb/day	3 lb/day
Toxic Air Contaminants (TACs) and Odor Thresholds		
TACs[b] (including carcinogens and noncarcinogens)	Maximum incremental cancer risk ≥ 10 in 1 million Cancer burden > 0.5 excess cancer cases (in areas $\geq$ 1 in 1 million) Chronic and acute hazard index ≥ 1.0 (project increment)	
Odor	Project creates an odor nuisance pursuant to SCAQMD Rule 402	

Source: SCAQMD 2015.

Notes: SCAQMD = South Coast Air Quality Management District; lb/day = pounds per day; VOC = volatile organic compound; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter; TAC = toxic air contaminant; NO_2 = nitrogen dioxide; ppm = parts per million; $\mu g/m^3$ = micrograms per cubic meter

[a] The phase-out of leaded gasoline started in 1976. Since gasoline no longer contains lead, the proposed project is not anticipated to result in impacts related to lead; therefore, it is not discussed in this analysis.

[b] TACs include carcinogens and non-carcinogens.

The following discussion quantitatively evaluates project-generated construction and operational emissions and impacts that would result from implementation of the proposed project.

Construction Emissions

Proposed demolition and construction activities would result in the temporary addition of pollutants to the local airshed caused by on-site sources (i.e., off-road construction equipment and dust) and off-site sources (i.e., on-road trucks and worker vehicle trips). Construction emissions can vary substantially from day to day, depending on the level of activity; the specific type of operation; and for dust, the prevailing weather conditions. Therefore, an increment of day-to-day variability exists.

As discussed in detail below, implementation of the project would generate criteria air pollutant emissions from off-road equipment, vehicle travel, and material handling. Internal combustion engines used by construction equipment, trucks, and worker vehicles would result in emissions of VOCs, NO_x, CO, PM_{10}, and $PM_{2.5}$. PM_{10} and $PM_{2.5}$ emissions would also be generated by earthmoving necessary to clear and grade the project site, material handling for truck loading/unloading activity, on-road vehicles traveling on paved roads, and from brake and tire wear. The project would be required to comply with SCAQMD Rule 403 to control dust emissions generated during any dust-generating activities. Standard construction practices that would be employed to reduce fugitive dust emissions include watering of the active dust areas up to three times per day, depending on weather conditions.

It is anticipated that construction and demolition activities would not include application of architectural coatings, such as exterior application/interior paint and other finishes, or application of asphalt pavement. Accordingly, associated VOC off-gassing emissions from coatings and asphalt are not estimated herein.

Construction assumptions were developed based on the current best available project information, details of which are included in Table 2-1. Construction details were identified on a monthly basis. Although not all of the activities identified in the same month would occur simultaneously, for the purposes of estimating emissions, it was conservatively assumed that all construction activities (i.e., equipment operation, truck trips, worker trips, and material handling) identified within a given month would occur within the same 8-hour day (with equipment operating for a maximum of 8 hours per day). This overall approach to the construction scenario assumptions would result in maximum daily emissions that reflect a level of intensity that is not anticipated to occur. In addition to inherent limitations during any construction process associated with equipment and personnel availability and site constraints, concurrent maximum construction at each active site within each month is not anticipated. Nonetheless, because the level of intensity on any given day is speculative, this analysis assumes the worst-case day for each area within each month.

Construction Schedule

A detailed depiction of expected construction schedules—including information regarding phasing, equipment used during each phase, trucks, and worker vehicles—is provided in Appendix A and summarized in Section 2.4, Project Construction, of this Initial Study/MND.

Emissions Estimation Methodology and Assumptions

Emissions from the construction phase of the project were estimated using a spreadsheet-based model and emissions factors from the CARB Mobile Source Emissions Inventory Model (EMFAC, version 2017), CARB Off-Road Emissions Inventory Model (OFFROAD, version 2011) as incorporated into the California Emissions Estimator Model (CalEEMod, version 2016.3.2), and USEPA AP-42 factors. Emission calculation equations and assumptions were primarily derived from CalEEMod.

A summary of the emissions calculation methodology is provided below for off-road equipment, on-road vehicle travel, and fugitive dust associated with earthwork and material handling.

Equipment Emissions

Operation of heavy construction equipment generates criteria air pollutant emissions from fuel combustion. Consistent with CalEEMod assumptions, all off-road construction equipment was assumed to be diesel-fueled. Because the equipment is assumed to be diesel, there are no starting or evaporative emissions associated with the equipment, as these are de minimis for diesel-fueled equipment; as such, only running exhaust emissions from off-road equipment are estimated.

A pound-per-hour emissions rate was generated for each piece of equipment for each year of construction based on the equipment-specific emissions factor (in grams per brake-horsepower-hour); the average equipment horsepower; and average load factor,[4] derived from the CalEEMod 2016.3.2 database, which incorporates OFFROAD2011 factors. All pieces of equipment were conservatively assumed to operate for 8 hours per day, 5 days per week. Daily emissions were estimated by multiplying the equipment-specific emissions factor by the number of pieces of equipment and the hours of operation in 1 day.

Vehicle Emissions

Exhaust

The emissions factors for trucks and worker vehicles were determined using CARB's motor vehicle emissions inventory program, EMFAC2017.[5] EMFAC2017 can generate emissions factors, expressed in grams per mile, for the fleet in a class of motor vehicles within a county for a particular study year. For this analysis, the South Coast portion of Los Angeles County and calendar years 2019, 2020, and 2021 were selected based on the project's construction schedule. Vehicle emission factors accounted for aggregated model years and speeds of 5 to 15 miles per hour (mph) for on-site water trucks, as well as aggregated speeds and model years for off-site vehicles.

A composite, or weighted-average, emissions factor was developed for project vehicle types if more than one vehicle category in EMFAC is anticipated to be representative of the project vehicle. The composite emissions factor represents the weighted average emissions rate of the South Coast portion of Los Angeles County vehicle fleet, which was weighted based on vehicle miles traveled (VMT) in the EMFAC inventory. Vehicle emission factors were developed for haul trucks, which reflect a composite of heavy-heavy duty trucks and medium-heavy duty trucks, and for worker vehicles, which are based on a composite of light-duty automobiles and light-duty trucks. The vehicle exhaust emission factors developed for each project vehicle were then multiplied by the VMT for each trip to estimate exhaust emissions associated with vehicle travel to and from the project site. Each truck and worker was estimated to generate two one-way trips (one round-trip). Although it is reasonable to assume that not all worker trips would drive separately to the site, this analysis conservatively assumes single-occupancy-vehicle worker trips. The average distance traveled by each truck was assumed to be 20 miles per one-way trip, and the average distance traveled by each worker was assumed to be 15 miles per one-way trip.

---

[4] The load factor is the ratio of the actual output to the maximum output of a piece of equipment. The load factor is equipment-type-specific and does not vary with horsepower (hp) (e.g., the load factors of a 125-hp dozer and a 500-hp dozer are the same).

[5] Available online at https://www.arb.ca.gov/emfac/.

Brake and Tire Wear

As vehicles are driven, particulate matter is generated from degradation of brakes and tires. Brake and tire wear PM_{10} and $PM_{2.5}$ emissions were calculated by multiplying the EMFAC2017 emission factors for brake wear or tire wear for each vehicle class and the total VMT traveled by that vehicle class.

The VMT assumed is the same used for vehicle trips. Brake and tire wear PM_{10} and $PM_{2.5}$ emissions were estimated in the vehicle emissions spreadsheet model and added to other vehicle sources of PM_{10} and $PM_{2.5}$ (i.e., exhaust and paved road dust) to present total PM_{10} and $PM_{2.5}$ associated with truck and worker trips.

Paved Road Dust

Vehicles that drive on paved roads generate fugitive dust by dispersing the silt from the roads. Paved road dust PM_{10} and $PM_{2.5}$ emission factors were developed pursuant to the CalEEMod road dust equation and based on road surface silt loading factors from CalEEMod and particle size multipliers from AP-42 Section 13.2.1, Paved Roads (USEPA 2011). Emissions were calculated by multiplying the paved road dust emission factors by the VMT.

The VMT assumed is the same used for vehicle trips and brake and tire wear. Paved road PM_{10} and $PM_{2.5}$ emissions were added to exhaust and brake and tire wear PM_{10} and $PM_{2.5}$ emissions to present total vehicle-related PM_{10} and $PM_{2.5}$ emissions.

Earthwork and Material Handling Activities

Fugitive PM_{10} and $PM_{2.5}$ emissions associated with earthwork and material handling activities were estimated based on equations and factors included in CalEEMod. Daily disturbed area for the project was based on the operation of two dozers during the clearing and fine grading phases of construction, assuming each dozer would pass over 0.5 acres in an 8-hour work day based on the CalEEMod default. It is assumed that the particulate emissions from the earthwork activities would be controlled by watering of the active dust areas up to three times per day, depending on weather conditions, per SCAQMD Rule 403. Accordingly, emission factors for controlled sources were used for emission estimates.

Estimated Maximum Daily Emissions

Estimated maximum daily construction criteria air pollutant emissions from all on-site and off-site emission sources is provided in Table 3.3-2 for years 2019, 2020, and 2021.

Table 3.3-2. Estimated Maximum Daily Construction Emissions

Year	VOC	NO_x	CO	SO_x	PM_{10}[a]	$PM_{2.5}$[a]
	Pounds per Day					
2019	6.05	64.36	36.10	0.10	2.99	2.35
2020	6.03	62.60	36.59	0.10	2.76	2.39
2021	0.54	6.17	3.33	0.01	0.28	0.23
Maximum Daily Emissions	**6.05**	**64.36**	**36.59**	**0.10**	**2.99**	**2.39**
SCAQMD threshold	*75*	*100*	*550*	*150*	*150*	*55*
Threshold exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

Source: SCAQMD 2015.

Notes: VOC = volatile organic compound; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter; SCAQMD = South Coast Air Quality Management District.

See Appendix A for detailed results.

[a] PM_{10} and $PM_{2.5}$ represents total particulate matter, which includes exhaust, brake wear, tire wear, paved road dust, and fugitive dust from earth moving and material handling. These estimates reflect control of fugitive dust required by SCAQMD Rule 403.

As shown in Table 3.3-2, daily construction emissions would not exceed the SCAQMD significance thresholds for VOC, NO_x, CO, SO_x, PM_{10}, or $PM_{2.5}$ during construction in all construction years. Therefore, construction impacts of the project would be less than significant.

Operational Emissions

Following the completion of construction activities, the proposed project would only generate criteria pollutant emissions from on-road worker vehicles and delivery trucks associated with routine maintenance and inspection of the treatment equipment. The minimal operational activities would consist of refilling of the hydrogen peroxide tank (once per month), replacement of the UV lamps (once every 20 months), carbon replacement (once every three years per LPGAC vessel), and chlorine cylinder replacement (15 deliveries per month). For the worst-case air pollutant scenario, it was assumed that all activities would overlap on the same day. The emissions estimation methodology for on-road vehicle emissions detailed above for construction was also applied to operations, specifically for year 2021. Detailed assumptions of estimated daily worker and haul truck trips are provided in Appendix A. See also Section 2.5, Project Operations.

Table 3.3-3 summarizes the daily emissions of criteria pollutants that would be generated by intermittent maintenance of the proposed project and compares these emissions to the SCAQMD thresholds of significance.

Table 3.3-3. Estimated Maximum Daily Operational Emissions

Source	VOC	NO_x	CO	SO_x	PM_{10}[a]	$PM_{2.5}$[a]
	Pounds per Day					
On-Road Vehicles	0.09	2.26	0.84	0.01	0.14	0.07
Maximum Daily Emissions	**0.09**	**2.26**	**0.84**	**0.01**	**0.14**	**0.07**
SCAQMD threshold	*55*	*55*	*550*	*150*	*150*	*55*
Threshold exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

Source: SCAQMD 2015.

Notes: VOC = volatile organic compound; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter; SCAQMD = South Coast Air Quality Management District
See Appendix A for detailed results.

[a] PM_{10} and $PM_{2.5}$ represents total particulate matter, which includes exhaust, brake wear, tire wear, and paved road dust.

As shown in Table 3.3-3, the minimal increase in emissions associated with routine maintenance of the proposed project would not exceed the SCAQMD thresholds for VOC, NO_x, CO, SO_x, PM_{10}, or $PM_{2.5}$. Therefore, impacts would be considered less than significant for project operational emissions.

c) Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is 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. Air pollution is largely a cumulative impact. The nonattainment status of regional pollutants is a result of past and present development, and the SCAQMD develops and implements plans for future attainment of ambient air quality standards. Based on these considerations, project-level thresholds of significance for criteria pollutants are used in the determination of whether a project's individual emissions would have a cumulatively considerable contribution on air quality. If a project's emissions would exceed the SCAQMD significance thresholds, it would be considered to have a cumulatively considerable contribution. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant (SCAQMD 2003).

As discussed in Section 3.3(b), the Basin has been designated as a federal nonattainment area for O_3 and $PM_{2.5}$ and a state nonattainment area for O_3, PM_{10}, and $PM_{2.5}$. The nonattainment status is the result of cumulative emissions from various sources of air pollutants and their precursors within the Basin, including motor vehicles, off-road equipment, and commercial and industrial facilities. Proposed construction and operational activities of the project would generate VOC and NO_x emissions (which are precursors to O_3) and emissions of PM_{10} and $PM_{2.5}$. However, as indicated in Tables 3.3-2 and 3.3-3, project-generated construction and operational emissions would not exceed the SCAQMD emission-based significance thresholds for VOC, NO_x, PM_{10}, or $PM_{2.5}$.

Cumulative localized impacts would potentially occur if a construction project were to occur concurrently with another off-site project. Construction schedules for potential future projects near the project site are currently unknown; therefore, potential construction impacts associated with two or more simultaneous projects would be considered speculative.[6] However, future projects would be subject to CEQA and would require air quality analysis and, where necessary, mitigation. Criteria air pollutant emissions associated with construction activity of future projects would be reduced through implementation of control measures required by the SCAQMD. Cumulative

---

[6] The CEQA Guidelines state that if a particular impact is too speculative for evaluation, the agency should note its conclusion and terminate discussion of the impact (14 CCR 15145).

PM_{10} and $PM_{2.5}$ emissions would be reduced because all future projects would be subject to SCAQMD Rule 403 (Fugitive Dust), which sets forth general and specific requirements for all construction sites in the SCAQMD.

Therefore, the project would not result in a cumulatively considerable increase in emissions of nonattainment pollutants, and impacts would be less than significant.

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

Less-Than-Significant Impact. Localized project impacts are assessed below.

Sensitive Receptors

Sensitive receptors are those individuals more susceptible to the effects of air pollution than the population at large. People most likely to be affected by air pollution include children, the elderly, and people with cardiovascular and chronic respiratory diseases. According to the SCAQMD, sensitive receptors include residences, schools, playgrounds, childcare centers, long-term healthcare facilities, rehabilitation centers, convalescent centers, and retirement homes (SCAQMD 1993).

The two multi-family residential buildings located on the northeast corner of the NHPS block would be acquired and demolished as part of the project, which is accounted for in the emissions estimates presented herein. Project construction would occur at the NHPS block, with additional activity at the remediation wells and along the pipeline alignments. Residential land uses are located in close proximity to each of these project areas. Notably, the most intensive construction would occur at the NHPS block, which has proximate single-family and multi-family residences located approximately 20 meters away (across Dehougne Street to the north, across Morella Avenue to the east, and across Hinds Avenue to the west).

Localized Significance Thresholds

The SCAQMD recommends a localized significance threshold (LST) analysis to evaluate localized air quality impacts to sensitive receptors in the immediate vicinity of the project site as a result of construction activities. The impacts were analyzed using methods consistent with those in the SCAQMD's *Final Localized Significance Threshold Methodology* (2009). The project is located within the Source-Receptor Area (SRA) 7 (East San Fernando Valley). This analysis applies the SCAQMD LST values for a 1-acre site within SRA 7 with a receptor distance of 25 meters given that daily disturbed area for the project was based on the operation of two dozers during the clearing and fine grading phases of construction, assuming each dozer would pass over 0.5 acres in an 8-hour work day based on the CalEEMod default.[7]

---

[7] Although receptors would be about 20 meters from the project boundary, the SCAQMD recommends that projects with boundaries closer than 25 meters to the nearest receptors should use the LSTs for receptors located at 25 meters (SCAQMD 2008).

Project construction activities would result in temporary sources of on-site criteria air pollutant emissions associated with construction equipment exhaust and material handling activities. According to the *Final Localized Significance Threshold Methodology*, "off-site mobile emissions from the project should not be included in the emissions compared to the LSTs" (SCAQMD 2009). Trucks and worker trips associated with project construction are not expected to cause substantial air quality impacts to sensitive receptors along off-site roadways since emissions would be relatively brief in nature and would cease once the vehicles pass through the main streets. Therefore, off-site emissions from trucks and worker vehicle trips are not included in the LST analysis. The maximum daily on-site construction emissions generated during construction of the proposed project in each construction year are presented in Table 3.3-4 and compared to the SCAQMD localized significance criteria for SRA 7 to determine whether project-generated on-site construction emissions would result in potential LST impacts.

Table 3.3-4. Construction Localized Significance Thresholds Analysis

Year	NO_2	CO	PM_{10}	$PM_{2.5}$
	Pounds per Day (On-Site)[a]			
2019	61.02	31.48	2.79	2.23
2020	59.35	31.48	2.39	2.19
2021	5.69	2.29	0.22	0.20
Maximum Daily On-site Emissions	**61.02**	**31.48**	**2.79**	**2.23**
SCAQMD LST Criteria	*80*	*498*	*4*	*3*
Threshold Exceeded?	**No**	**No**	**No**	**No**

Source: SCAQMD 2009.

Notes: NO_2 = nitrogen dioxide; CO = carbon monoxide; PM_{10} = particulate matter; $PM_{2.5}$ = fine particulate matter; SCAQMD = South Coast Air Quality Management District; LST = localized significance threshold

See Appendix A for detailed results.

[a] Localized significance thresholds are shown for a 1-acre disturbed area corresponding to a distance to a sensitive receptor of 25 meters in SRA 7 (East San Fernando Valley). Although emissions would be generated by equipment operating at multiple construction sites (i.e., NHPS block, remediation wells, and pipeline alignments), the emissions were summed to show a worst-case exposure scenario.

As shown in Table 3.3-4, proposed construction activities would not generate emissions in excess of site-specific LSTs; therefore, localized project construction impacts would be less than significant.

CO Hotspots

Traffic-congested roadways and intersections have the potential to generate localized high levels of CO. Localized areas where ambient concentrations exceed federal and/or state standards for CO are termed CO "hotspots." CO transport is extremely limited and disperses rapidly with distance from the source. Under certain extreme meteorological conditions, however, CO concentrations near a congested roadway or intersection may reach unhealthy levels, affecting sensitive receptors. Typically, high CO concentrations are associated with severely congested intersections operating at an unacceptable level of service (LOS) (LOS E or worse is unacceptable). Projects contributing to adverse traffic impacts may result in the formation of a CO hotspot. Additional analysis of CO hotspot impacts would be conducted if a project would result in a significant impact or contribute to an adverse traffic impact at a signalized intersection that would potentially subject sensitive receptors to CO hotspots.

The Code of Federal Regulations, Title 40, Section 93.123(c)(5), Procedures for Determining Localized CO, PM10, and PM2.5 Concentrations (hot-spot analysis), states that "CO, PM10, and PM2.5 hot-spot analyses are not required to consider construction-related activities, which cause temporary increases in emissions. Each site which is affected by construction-related activities shall be considered separately, using established 'Guideline' methods. Temporary increases are defined as those which occur only during the construction phase and last five years or less at any individual site" (40 CFR 93.123). While project construction would involve on-road vehicle trips from trucks and workers during construction, construction activities would last approximately 2.5 years and, thus, are considered temporary. As a result, the proposed construction activities would not require a project-level construction hotspot analysis. Additionally, since the proposed project would result in minimal operational vehicular trips associated with routine maintenance, an operational CO hotspot evaluation is not required.

Accordingly, the proposed project would not generate traffic that would contribute to potential adverse traffic impacts that may result in the formation of CO hotspots. In addition, due to continued improvement in vehicular emissions at a rate faster than the rate of vehicle growth and/or congestion, the potential for CO hotspots in the Basin is steadily decreasing. Based on these considerations, the proposed project would result in a less-than-significant impact to air quality with regard to potential CO hotspots.

Toxic Air Contaminants

Toxic air contaminants (TACs) are defined as substances that may cause or contribute to an increase in deaths or in serious illness, or that may pose a present or potential hazard to human health. As discussed under the LST analysis, the nearest sensitive receptors to the proposed project are residences located approximately 20 meters from the proposed construction area. Health effects from carcinogenic air toxics are usually described in terms of cancer risk. The SCAQMD recommends an incremental cancer risk threshold of 10 in 1 million. "Incremental cancer risk" is the net increased likelihood that a person continuously exposed to concentrations of TACs resulting from a project over a 9-, 30-, and 70-year exposure period will contract cancer based on the use of standard Office of Environmental Health Hazard Assessment (OEHHA) risk-assessment methodology (OEHHA 2015). In addition, some TACs have non-carcinogenic effects. The SCAQMD recommends a Hazard Index of 1 or more for acute (short-term) and chronic (long-term) effects.[8] TACs that would potentially be emitted during construction activities associated with development of the proposed project would be diesel particulate matter.

---

[8] Non-cancer adverse health risks are measured against a hazard index, which is defined as the ratio of the predicted incremental exposure concentrations of the various non-carcinogens from the project to published reference exposure levels that can cause adverse health effects.

Diesel particulate matter emissions would be emitted from heavy equipment operations and heavy-duty trucks. Heavy-duty construction equipment is subject to a CARB Airborne Toxics Control Measure for in-use diesel construction equipment to reduce diesel particulate emissions. As described for the LST analysis, PM_{10} (representative of diesel particulate matter) exposure would be minimal. According to the OEHHA, health risk assessments, which determine the exposure of sensitive receptors to toxic emissions, should be based on a 30-year exposure period for the maximally exposed individual resident; however, such assessments should be limited to the period/duration of activities associated with the project. Thus, the duration of the proposed construction activities would only constitute a small percentage of the total 30-year exposure period. The construction period for the proposed project would total approximately 2.5 years, after which construction-related TAC emissions would cease. Due to this relatively short period of exposure and minimal particulate emissions on-site, TACs generated during construction would not result in concentrations causing significant health risks.

Operation of the proposed project would not result in any non-permitted direct emissions (e.g., those from a point source such as diesel generators) or result in a substantial increase in diesel vehicles (i.e., delivery trucks) over existing baseline conditions. The typical operational on-road worker and delivery trucks would be associated with refilling of the hydrogen peroxide tank (once per month), replacement of the UV lamps (once every 20 months), carbon replacement (once every three years per LPGAC vessel), and chlorine cylinder replacement (15 deliveries per month).

Overall, the project would not result in substantial TAC exposure to sensitive receptors in the vicinity of the proposed project, and impacts would be less than significant.

Health Impacts of Criteria Air Pollutants

Construction of the proposed project would generate criteria air pollutant emissions; however, the project would not exceed the SCAQMD mass-emission thresholds.

The Basin is designated as nonattainment for O_3 for the NAAQS and CAAQS. Thus, existing O_3 levels in the Basin are at unhealthy levels during certain periods. The health effects associated with O_3 are generally associated with reduced lung function. Because the proposed project would not involve construction and operational activities that would result in O_3 precursor emissions (VOC or NO_x emissions) that would exceed the SCAQMD thresholds, as shown in Tables 3.3-2 and 3.3-3, the project is not anticipated to substantially contribute to regional O_3 concentrations and its associated health impacts.

In addition to O_3, NO_x emissions contribute to potential exceedances of the NAAQS and CAAQS for NO_2. Exposure to NO_2 and NO_x can irritate the lungs, cause bronchitis and pneumonia, and lower resistance to respiratory infections. Project construction and operations would not exceed the SCAQMD NO_x threshold, as shown in Tables 3.3-2 and 3.3-3, and existing ambient NO_2 concentrations are below the NAAQS and CAAQS. Thus, project construction and operations is not expected to result in exceedances of the NO_2 standards or contribute to associated health effects.

CO tends to be a localized impact associated with congested intersections. In terms of adverse health effects, CO competes with oxygen, often replacing it in the blood, reducing the blood's ability to transport oxygen to vital organs. The results of excess CO exposure can include dizziness, fatigue, and impairment of central nervous system functions. CO hotspots were discussed previously as a less-than-significant impact. Thus, the proposed project's CO emissions would not contribute to the health effects associated with this pollutant.

The Basin is designated as nonattainment for PM_{10} under the CAAQS and nonattainment for $PM_{2.5}$ under the NAAQS and CAAQS. Particulate matter contains microscopic solids or liquid droplets that are so small that they can get deep into the lungs and cause serious health problems. Particulate matter exposure has been linked to a variety of problems, including premature death in people with heart or lung disease, nonfatal heart attacks, irregular heartbeat, aggravated asthma, decreased lung function, and increased respiratory symptoms such as irritation of the airways, coughing, or difficulty breathing (USEPA 2018b). As with O_3 and NO_x, the proposed project would not generate emissions of PM_{10} or $PM_{2.5}$ that would exceed the SCAQMD's thresholds. Accordingly, the proposed project's PM_{10} and $PM_{2.5}$ emissions are not expected to cause any increase in related regional health effects for this pollutant.

In summary, the proposed project would not result in a potentially significant contribution to regional concentrations of non-attainment pollutants, and would not result in a significant contribution to the adverse health impacts associated with those pollutants. Impacts would be less than significant.

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

Less-Than-Significant Impact. The occurrence and severity of potential odor impacts depend on numerous factors. The nature, frequency, and intensity of the source; wind speed and direction; and the sensitivity of receiving location each contribute to the intensity of the impact. Although offensive odors seldom cause physical harm, they can be annoying, cause distress among the public, and generate citizen complaints.

Odors would be potentially generated from vehicles and equipment exhaust emissions during construction of the proposed project. Odors produced during construction would be attributable to concentrations of unburned hydrocarbons from tailpipes of construction equipment. Such odors are temporary, dissipate relatively rapidly with distance, and generally occur at magnitudes that would not affect substantial numbers of people. Therefore, impacts associated with odors during construction would be considered less than significant.

Land uses and industrial operations typically associated with odor complaints include agricultural uses, wastewater treatment plants, food-processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding. As an existing groundwater treatment facility that would be expanded to provide groundwater remediation, the proposed project would not result in the creation of a land use that is commonly associated with odors. Therefore, project operations would result in an odor impact that would be less than significant.

References

CARB (California Air Resources Board). 2017. "Area Designation Maps/State and National." Last updated October 18, 2017. Accessed March 2018. http://www.arb.ca.gov/desig/adm/adm.htm.

OEHHA (Office of Environmental Health Hazard Assessment). 2015. Air Toxics Hot Spots Program Risk Assessment Guidelines – Guidance Manual for Preparation of Health Risk Assessments. February 2015. Accessed March 2018. http://www.oehha.ca.gov/air/hot_spots/2015/2015GuidanceManual.pdf.

SCAG (Southern California Association of Governments). 2016. 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy: A Plan for Mobility, Accessibility, Sustainability, and High Quality of Life. Adopted April 2016. Accessed March 2018. http://scagrtpscs.net/Documents/2016/final/f2016RTPSCS.pdf.

SCAQMD (South Coast Air Quality Management District). 1993. CEQA Air Quality Handbook.

SCAQMD. 2003. White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution. August 2003. Accessed March 2018. http://www.aqmd.gov/docs/default-source/Agendas/Environmental-Justice/cumulative-impacts-working-group/cumulative-impacts-white-paper.pdf?sfvrsn=2.

SCAQMD. 2008. Final Localized Significance Threshold Methodology. June 2003; revised July 2008. Accessed March 2018. http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/final-lst-methodology-document.pdf?sfvrsn=2.

SCAQMD. 2009. *Final Localized Significance Threshold Methodology*. Revised July 2009.

SCAQMD. 2015. "SCAQMD Air Quality Significance Thresholds." Originally published in CEQA Air Quality Handbook, Table A9-11-A. Revised March 2015. Accessed March 2018. http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf?sfvrsn=2.

SCAQMD. 2017. Final 2016 Air Quality Management Plan. March 16, 2017. Accessed October 2017. http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2016-air-quality-management-plan/final-2016-aqmp/final2016aqmp.pdf?sfvrsn=15.

3.4 Biological Resources

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, 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?	☐	☐	☐	☒
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 Wildlife 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?	☐	☐	☐	☒

A biological resources letter report was prepared to describe potential effects that could occur to biological resources as a result of the proposed project. The report is included in this Initial Study/MND as Appendix B. Preparation of this biological resources letter report involved a literature review and a biological reconnaissance-level site visit conducted on March 5, 2018. The area within the project site and a 500-foot buffer around the site were evaluated for the presence of special-status biological resources. The project site is located on City-owned land in the neighborhoods of Sun Valley and North Hollywood in the City of Los Angeles, Los Angeles County, California (Figure 3.4-1).

SOURCE: Bing Maps 2018

0 360 720 Feet

FIGURE 3.4-1

Biological Resources

Proposed North Hollywood Central Groundwater Treatment Action

INTENTIONALLY LEFT BLANK

The study area is within an urban environment. The project site is located along the RT Well Field alignment and NHPS, east of the Hollywood Freeway (State Route 170), south of Roscoe Boulevard, north of Vanowen Street, and southwest of the Interstate 5 (Figure 3.4-1). The RT Well Field alignment is dominated by non-native grassland and developed areas. It is also used as a nursery and supports minimal native vegetation. The NHPS is located on a paved lot, composed of existing LADWP facilities. The project site is primarily bordered by residential development. Surrounding land uses also include some recreation, commercial, and light manufacturing uses (Figure 3.4-1).

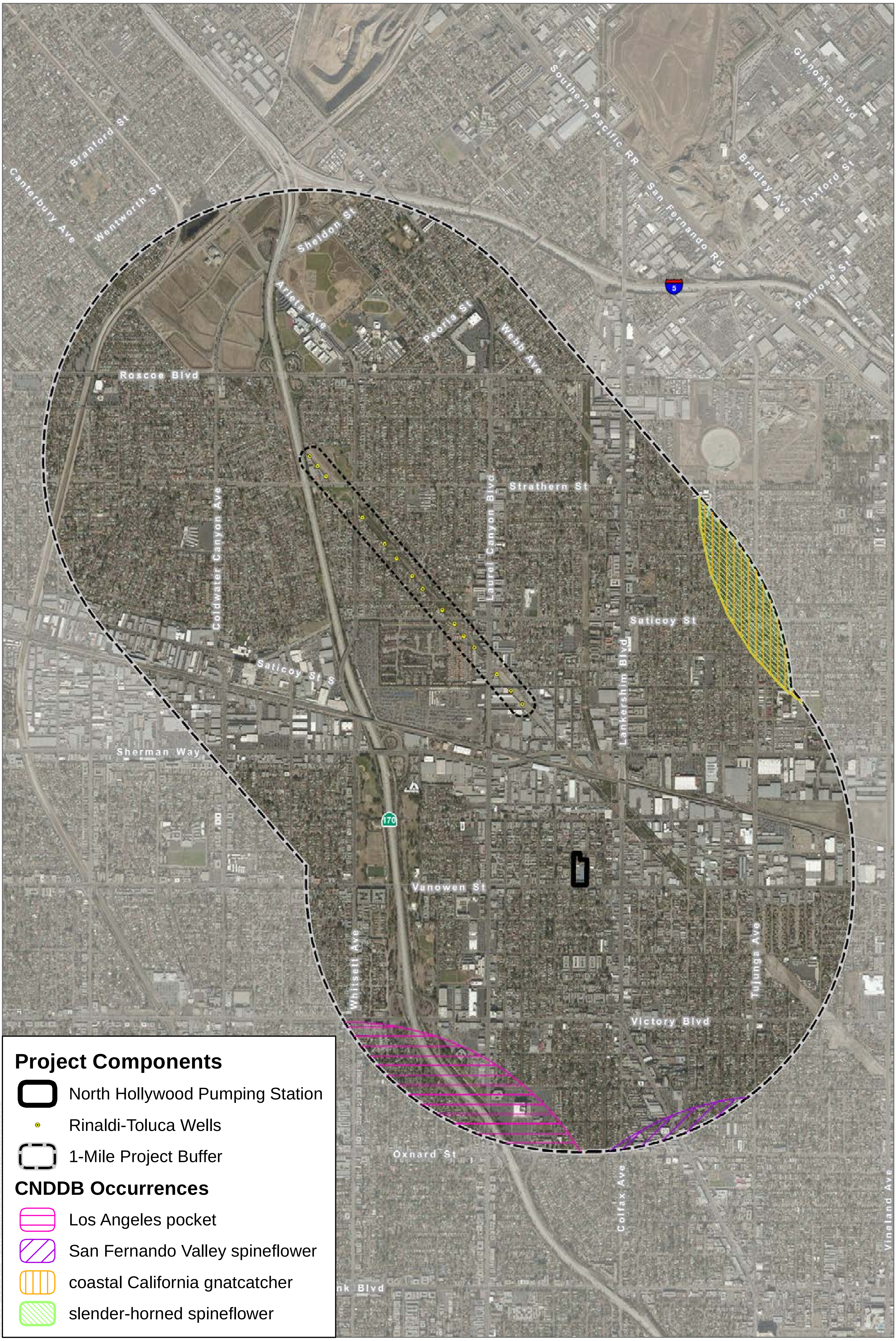
a) Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish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

No Impact.

No special-status plant or wildlife species were detected within the biological resources study area during the site visit. The proposed project occurs within the Van Nuys United States Geological Survey 7.5-minute quadrangle. A California Natural Diversity Database (CNDDB) and California Native Plant Society Inventory of Rare and Endangered Plants query were conducted for the Van Nuys United States Geological Survey 7.5-minute quadrangle and surrounding eight quadrangles (San Fernando, Sunland, Canoga Park, Topanga, Oat Mountain, Burbank, Beverly Hills, and Hollywood) (CDFW 2018; CNPS 2018), and a 1-mile buffer around the property was queried for United States Fish and Wildlife Service (USFWS) occurrence data (USFWS 2018). Figure 3.4-2 illustrates CNDDB and USFWS occurrence data within this 1-mile buffer of the project site. The query results identified 52 special-status plant species and 46 special-status wildlife species, and no special-status species have been documented to occur within the biological resources study area (CDFW 2018). The results of these queries are provided in Appendix B.

The majority of the plants observed on-site were non-native species, which is representative of the existing site conditions. According to a review of CNDDB (CDFW 2018), two special-status plants have been documented within 1 mile of the project site (Figure 3.4-2): slender-horned spineflower (*Dodecahema leptoceras*; federally endangered, state endangered, California Rare Plant Rank (CRPR) 1B.1) and San Fernando Valley spineflower (*Chorizanthe parryi* var. *fernandina*; federally proposed as threatened, state endangered, CRPR 1B.1). Slender-horned spineflower is an annual herb that blooms between April and June, and is typically associated with sandy soils in chaparral, cismontane woodland, and coastal scrub habitats. Slender-horned spineflower was documented approximately 1 mile east of the project site and is presumed extirpated based on the development in the area since its collection in 1906. San Fernando Valley spineflower is an annual herb that blooms between April and July and occurs within sandy coastal scrub and grassland habitats. San Fernando Valley spineflower was documented approximately 1 mile southwest of the project site and is likely extirpated from the area due to development. Based on the fact that the biological resources study area lacks suitable habitat (i.e., chaparral, cismontane woodland, and coastal scrub habitats) for slender-horned spineflower and has limited, isolated non-native grassland habitat to support San Fernando Valley spineflower, as well as they are likely extirpated from the area, these special-status plant species have a low potential to occur within the study area. The project site is dominated by developed land, with minimal disturbed, non-native weedy herbaceous species observed on site. Additionally, there is minimal native habitat adjacent to or within a 1-mile radius of the project site. Thus, the proposed project would not affect special-status plants. No impacts to special-status plants are anticipated to occur.

The majority of the wildlife species observed on site are adapted to urban environments. No special-status wildlife species were detected during the survey conducted in March 2018. Two special-status wildlife species have been documented within one-mile of the project (CDFW 2018; Figure 3.4-2): coastal California gnatcatcher (*Polioptila californica californica*; federally threatened, state species of special concern) and Los Angeles pocket mouse (*Perognathus longimembris brevinasus*; state species of special concern). One record for coastal California gnatcatcher occurs approximately 1 mile east of the project site and dates back to 1901 (CDFW 2017). Coastal California gnatcatcher is a songbird that is a year-round resident of scrub dominated plant communities in southern California into Baja California, Mexico. The site lacks suitable coastal scrub habitat to support this species; thus, coastal California gnatcatcher is not expected to occur within the study area. Los Angeles pocket mouse occurs within lower elevation grassland, alluvial sage scrub, and coastal sage scrub habitats in the coastal basins of southern California. The non-native grassland habitat within the project site is too limited and isolated to provide suitable habitat to support Los Angeles pocket mouse. Thus, there is a low potential for this species to occur within the study area. Due to lack of native habitats in the project site and the urban setting that dominates the surrounding study area, the site lacks native vegetation suitable to support special-status wildlife (Appendix B). No special-status wildlife species were determined to have a moderate or high potential to occur within the project site. No impacts to special-status wildlife are anticipated to occur.



SOURCE: Bing Maps 2018, CNDDB 2018

LA DWP Los Angeles Department of Water & Power

0 850 1,700 Feet

FIGURE 3.4-2

Special-Status Species Occurrences

Proposed North Hollywood Central Groundwater Treatment Action

INTENTIONALLY LEFT BLANK

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 Wildlife or U.S. Fish and Wildlife Service?***

No Impact. No riparian habitat or other sensitive vegetation communities have been identified within the study area; therefore, the proposed project would not affect any such habitats. No impact would occur.

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. No jurisdictional wetlands or non-wetland waters occur within the study area. Therefore, there would be no direct and/or indirect impacts to jurisdictional waters. No impact would occur.

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 Incorporated. The trees and shrubs within the study area have the potential to support nesting birds protected under the Migratory Bird Treaty Act (16 USC 703–712) and California Fish and Game Code, Sections 3503.5, 3503, and 3513. Thus, project construction would have the potential to result in significant impacts to birds and raptors, in the event that such species were to be nesting, foraging, or reproducing within the biological resources study area. Incorporation of Mitigation Measure (MM-) BIO-1, which requires focused avian surveys for construction occurring between February 15 and August 31, would ensure that any nesting birds, including raptors, present during construction are protected and would therefore reduce impacts to nesting birds below a level of significance.

The study area is not recognized as a wildlife corridor as per South Coast Wildlands (2008) or County of Los Angeles (Department of Regional Planning 2014). The site is largely developed and does not provide suitable connection to open space areas. Additionally, the study area lacks habitats that support native migratory fish and wildlife. The project site is within a heavily urbanized environment with minimal water sources; thus, does not provide suitable habitat for important nesting, feeding, and resting ground for migratory, resident and wintering bird species. Thus, providing minimal habitat to support resident and migratory birds and bats. Additionally, the long-term use of the area surrounding the project site would remain unchanged after construction.

The Rinaldi-Toluca Well Field alignment also includes a utility corridor, which traverses from northwest to southeast. The overall alignment connects with SR-170 along its northwestern extent and the northwestern portion of Griffith Park and adjacent Forrest Lawn along its southeastern extent. The alignment is within an urbanized portion of Los Angeles, so while it does not provide high quality habitat to support species movement and has limited potential to support "live in" habitat, it provides one of the few opportunities for wildlife to easily traverse through the heavily urbanized area. Thus, terrestrial species that are adapted to urban areas, such as coyote (*Canis latrans*), raccoon (*Procyon lotor*), and striped skunk (*Mephitis mephitis*), have the potential to use the general alignment for movement through the urban areas adjacent to the study area. Although project construction could temporarily affect the use of the project site itself by urban terrestrial wildlife, the overall long-term use of the area following construction would remain unchanged. Additionally, areas adjacent to the project site would be suitable for use by urban wildlife to move through or around the project site during construction. Construction would occur during the daytime and avoid nighttime lighting that could deter terrestrial wildlife from the area. For these reasons the project would not 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. MM-BIO-1 is as follows:

> ***MM-BIO-1: Nesting Bird Avoidance***
>
> If project construction occurs during the migratory bird nesting season (typically February 15 through August 31), a focused avian nesting survey of the project site and contiguous habitat area within 300 feet of ground disturbing activities (i.e., vegetation trimming and/or removal) for protected native birds (within 500 feet for raptors) shall be performed by a qualified wildlife biologist 72 hours prior to construction in accordance with the Migratory Bird Treaty Act (16 USC 703–712) and California Fish and Game Code, Sections 3503, 3503.5, and 3513. If an active bird nest is found, the nest shall be flagged and mapped on the construction plans along with an appropriate no disturbance buffer, which will be determined by the biologist based on the biology of the species (e.g., 300 feet for passerines and 500 feet for raptor and special-status species). The nest area shall be avoided until the nest is vacated and the juveniles have fledged, as determined by a qualified biologist. The nest area shall be demarcated in the field with flagging and stakes or construction fencing.

With the incorporation of MM-BIO-1 into the proposed project, potentially significant impacts would be reduced to a less-than-significant level.

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 City of Los Angeles Protected Tree Ordinance, as modified by Ordinance 177404, provides guidelines for the preservation of Southern California native tree species measuring 4 inches or more in cumulative diameter, as measured at 4.5 feet above the ground level at the base of the tree (City of Los Angeles 2006). Trees protected under this ordinance include all oak trees indigenous to California (excluding the scrub oak *Quercus dumosa*), Southern California black walnut (*Juglans californica* var. *californica*), California sycamore (*Platanus racemosa*), and California bay (*Umbellularia californica*). No City protected trees occur within the study area; therefore, the proposed project would not conflict with City's Protected Tree Ordinance. No impact would occur.

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. The Sun Valley–La Tuna Canyon Community Plan does not designate any portions of the Community Plan area as being within a habitat conservation plan (City of Los Angeles 1999). Furthermore, the project site is not within any of the regional conservation plans designated by the state (CDFW 2017). Therefore, the proposed project would not 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 would occur.

References

CDFW (California Department of Fish and Wildlife). 2017. *California Regional Conservation Plans* [map]. October 2017. Accessed March 8, 2018. https://www.wildlife.ca.gov/Conservation/Planning/NCCP.

CDFW. 2018. California Natural Diversity Database (CNDDB). RareFind 5.0 (Commercial Subscription). Sacramento, California: CDFW, Biogeographic Data Branch. Accessed March 2018. https://nrmsecure.dfg.ca.gov/cnddb/Default.aspx.

CNPS (California Native Plant Society, Rare Plant Program). 2018. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39). Accessed online on March 2018 at: http://www.rareplants.cnps.org.

City of Los Angeles. 1999. *Sun Valley – La Tuna Canyon Community Plan*. Adopted August 13, 1999. Accessed March 8, 2018. https://planning.lacity.org/complan/valley/svypage.htm.

City of Los Angeles. 2006. City of Los Angeles, Ordinance 177404, approved March 13, 2006. Effective April 23, 2006. Accessed March 2018. http://cityplanning.lacity.org/Code_Studies/Other/ProtectedTreeOrd.pdf.

Department of Regional Planning. 2014. Regional Habitat Linkages, Figure 9.2. Accessed online March 2018 at http://planning.lacounty.gov/assets/upl/project/gp_2035_2014-FIG_9-2_Regional_Wildlife_Linkages.pdf.

South Coast Wildlands. 2008. *South Coast Missing Linkages: A Wildland Network for the South Coast Region.* Accessed online on March 2018. http://www.scwildlands.org/reports/SCMLRegionalReport.pdf.

USFWS (United States Fish and Wildlife Service). 2018. "Critical Habitat and Occurrence Data". Accessed March 2018. https://ecos.fws.gov/ecp/.

3.5 Cultural Resources

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☐	☐	☒
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §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?	☐	☒	☐	☐

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

No Impact. A California Historical Resources Information System (CHRIS) records search of the project site and a 1.0-mile boundary was conducted at the South Central Coastal Information Center (SCCIC) on March 29, 2018. No previously recorded resources were identified within the project site as a result of the SCCIC records search. However, the SCCIC records search identified 47 previous studies and 7 previously recorded built environment resources within a 0.5-mile radius of the project site. One previous study overlaps the southern portion of the project site. Completed in 2010, study LA-10756 consists of a reconnaissance built environment investigation (McKenna 2010). No designated historic districts were identified as a result of the SCCIC records search nor the 2010 reconnaissance survey.

While some structures on the project site are historic in age, they would not be modified as part of the project. As such, no impacts to historical resources would occur.

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

Less-Than-Significant Impact with Mitigation Incorporated. In order to determine the archaeological sensitivity of the project site, background research was conducted for the site, involving a records search, Sacred Lands File search, and communication with local Native American groups. A CHRIS records search was conducted at the SCCIC on March 29, 2018, for the proposed project site and a surrounding radius of 1 mile. The CHRIS search included a review of the National Register of Historic Places (NRHP), the California

Register of Historical Resources (CRHR), the California Points of Historical Interest list, the California Historical Landmarks list, the Archaeological Determinations of Eligibility list, and the California State Historic Resources Inventory list. The records search also included a review of all available historic USGS 7.5- and 15-minute quadrangle maps.

No previously recorded resources were identified within the project site as a result of the SCCIC records search. However, the SCCIC records search identified 47 previous studies and 7 previously recorded built environment resources within a 0.5-mile radius of the project site. One previous study overlaps the southern portion of the project site. Completed in 2010, study LA-10756 consists of a reconnaissance built environment investigation (McKenna 2010). As a result of this investigation, McKenna concluded that the area should be considered highly sensitive for prehistoric archaeological resources.

As part of the process of identifying cultural resources within or near the project site, the Native American Heritage Commission (NAHC) was contacted to request a review of the Sacred Lands File (SLF) on March 7, 2018. The NAHC emailed a response the following day stating that the SLF search was returned with negative results. A Native American Tribal Consultation List was also provided in the NAHC response letter. Tribal groups on this list were contacted on April 4, 2018. This coordination was conducted for informational purposes only and does not constitute formal government-to-government consultation. One response was received from Chairperson Andrew Salas of the Gabrieleno Band of Mission Indians. Chairperson Salas stated that the project site is within the tribes Ancestral territory and requested that a Native American monitor representing their tribe be present during all ground disturbance.

No archaeological resources were identified within the project site as a result of the SCCIC records search, the SLF search, or Native American coordination.

All project activities would be limited to existing developed areas, roadways, and a transmission corridor, and the review of historic aerials and topographic maps indicate extensive development. No resources have been previously recorded within the project site and the likelihood of encountering archaeological resources is low due to previous disturbance. However, it is nonetheless possible that previously undiscovered intact archaeological deposits are present at subsurface levels and could be uncovered during ground-disturbing activities, thereby resulting in potentially significant impacts. As such, MM-CUL-1, as follows, is incorporated to address inadvertent discoveries during construction:

MM-CUL-1: Inadvertent Discovery of Archaeological Resources

In the event that archaeological resources (sites, features, or artifacts) are discovered during construction activities for the proposed project, all construction work occurring within 100 feet of the find shall immediately stop until a qualified archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards, can evaluate the significance of the find and determine whether or not additional study is warranted. Construction activities may continue on other parts of the construction site while evaluation and treatment at the discovery site take place. Depending upon the significance of the find under CEQA (14 CCR 15064.5(f); California PRC, Section 21082), the archaeologist may simply record the find and allow work to continue. If the discovery proves significant under CEQA, additional work, such as preparation of an archaeological treatment plan, testing, or data recovery, may be warranted. Work in the area may resume once evaluation and treatment of the resource is completed or the resource is recovered and removed from the site.

With the incorporation of MM-CUL-1 into the proposed project, potentially significant impacts would be reduced to a less-than-significant level.

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

Less-Than-Significant Impact with Mitigation Incorporated. The project site is located within sedimentary deposits of the San Fernando Valley, north of the Santa Monica Mountains, west of the Verdugo Mountains, southwest of the San Gabriel Mountains, southeast of the Santa Susana Mountains, east of the Simi Hills. The entire project site is mapped as surficial Quaternary alluvium, according to published mapping by Dibblee and Ehrenspeck (1991). These Holocene, or Recent, deposits presumably overlie older, Pleistocene, or “Ice-Age” deposits at an unknown depth (McLeod 2016; Dibblee and Ehrenspeck 1991).

Past excavation and trenching activities in the area surrounding the project site have encountered paleontological resources in older Quaternary alluvial deposits. According to the records search results received from the Natural History Museum of Los Angeles County (LACM), the closest fossil localities to the project site within Quaternary alluvial deposits are located east of the Sepulveda Dam Recreation Area, north of the Ventura Freeway (Highway 101). One of these localities yielded Pleistocene age mammals, including extinct peccary, camel, and bison remains at depths between 75 and 100 feet below the ground surface (bgs), fossil locality LACM 3822) (McLeod 2016). Additional localities to the south at shallower depths, between 14 and 20 feet bgs, yielded extinct horse and bison (LACM 3263 and 6208, respectively; McLeod 2016). Near the intersection of Lankershim Boulevard and Highway 134, during construction for the Metrorail Redline Universal City Tunnel, between 60 and 80 feet bgs, specimens of extinct camel (*Camelops hesternus*), bison (*Bison antiquus*), and ground sloth (*Glossotherium harlani*) were recovered (LACM 6970; McLeod 2016).

However, no paleontological resources were identified within the project site as a result of the institutional records search or desktop geological review. Furthermore, the project site is located within an area that has been previously developed and is likely underlain by fill materials, at least in part. As such, the project site is not anticipated to be underlain by unique geologic features.

The proposed project site has been heavily disturbed by urban development over the years, and depths of excavation for the project are not anticipated to exceed 15 feet. However, intact paleontological resources may be present below the original layer of fill material. Additionally, given the proximity of past fossil discoveries in the surrounding area and the underlying Pleistocene age alluvial deposits, the project site is moderately to highly sensitive for supporting paleontological resources. In the event that intact paleontological resources are located on the project site, ground-disturbing activities associated with construction of the proposed project, such as excavation and grading during site preparation, have the potential to destroy a unique paleontological resource or site. As such, MM-CUL-2, as follows, is incorporated into the proposed project during project construction:

> ***MM-CUL-2: Discovery of Paleontological Resources***
>
> Prior to commencement of any grading activity on-site, the applicant shall retain a qualified paleontologist, subject to the review and approval of the City of Los Angeles's Building Official, or designee. The qualified paleontologist shall attend the preconstruction meeting and be on-site during all rough grading and other significant ground-disturbing activities in previously undisturbed older Quaternary alluvial deposits, if encountered. These deposits may be encountered at depth below ground surface. In the event that paleontological resources (e.g., fossils) are unearthed during grading, the paleontology monitor will temporarily halt and/or divert grading activity to allow recovery of paleontological resources. The area of discovery will be roped off with a 50-foot radius buffer. Once documentation and collection of the find is completed, the monitor will remove the rope and allow grading to recommence in the area of the find. The paleontologist shall prepare a Paleontological Resources Impact Mitigation Program (PRIMP) for the proposed project. The PRIMP shall be consistent with the guidelines of the Society of Vertebrate Paleontology (SVP 2010).

With the incorporation of MM-CUL-2 into the proposed project, potentially significant impacts would be reduced to a less-than-significant level.

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

Less-Than-Significant Impact with Mitigation Incorporated. No prehistoric or historic burials were identified within the project site as a result of the records search. The proposed project would be constructed within previously excavated and disturbed areas. However, the possibility of encountering human remains within the project site exists. The discovery of human remains would require handling in accordance with Public Resources Code 5097.98, which states that in the event that human remains are discovered during construction, construction activity shall be halted and the area shall be protected until consultation and treatment can occur as prescribed by law. In the unexpected event that human remains are unearthed during construction activities, impacts would be potentially significant. As such, MM-CUL-3, as follows, is incorporated into the proposed project during project construction:

> ***MM-CUL-3: Inadvertent Discovery of Human Remains***
>
> In accordance with Section 7050.5 of the California Health and Safety Code, if human remains are discovered, the County Coroner shall be immediately notified of the discovery. No further excavation or disturbance of the project site or any nearby area reasonably suspected to overlie

adjacent remains shall occur until the County Coroner has determined, within 2 working days of notification of the discovery, the appropriate treatment and disposition of the human remains. Construction activities may continue on other parts of the construction site while evaluation and treatment at the discovery site take place. If the County Coroner determines that the remains are, or are believed to be, Native American, he or she shall notify the Native American Heritage Commission (NAHC) in Sacramento within 24 hours. In accordance with California Public Resources Code, Section 5097.98, the NAHC must immediately notify those persons it believes to be the most likely descendant from the deceased Native American. The most likely descendant shall complete their inspection within 48 hours of being granted access to the site. The designated Native American representative would then determine, in consultation with the Los Angeles Department of Water and Power, the disposition of the human remains. Work at the discovery site may resume after consultation with the most likely descendant and treatment of the remains and any associated resources has been concluded.

With the incorporation of MM-CUL-3 into the proposed project, potentially significant impacts would be reduced to a less-than-significant level.

References

Dibblee, T.W., and H.E. Ehrenspeck, ed., 1991, Geologic map of the San Fernando and Van Nuys (north 1/2) quadrangles, Los Angeles County, California: Dibblee Geological Foundation, Dibblee Foundation Map DF-33, scale 1:24,000.

McKenna et al. 2010. A Cultural Resources Overview and Preliminary Assessment of the Pacoima/Panorama City Redevelopment Plan Amendment/xpansion Project Area, Los Angeles County, California. On file at the South Coast Central Information Center.

McLeod, S.A. 2016. Vertebrate Paleontology Records Check for paleontological resources for the proposed North Hollywood West Wellhead Treatment Project, Dudek #8584-7-1, in the City of Los Angeles, Los Angeles County, project area. Unpublished records search results letter dated 7 June 2016.

SVP (Society of Vertebrate Paleontology). 2010. Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources. 11 p. Available; http://vertpaleo.org/PDFS/68/68c554bb-86f1-442f-a0dc-25299762d36c.pdf.

3.6 Geology and Soils

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
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 on- or off-site 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?	☐	☐	☐	☒

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.

No Impact. The project site is not located within an Alquist-Priolo Earthquake Fault Zone or City Fault Rupture Study Area and is not traversed by any known active fault. The nearest active faults include an unnamed fault, located approximately 2 miles south of the project site, at the closest point, and the Verdugo Fault, located approximately 4 miles northeast of the project site (CGS 1998, 2010; City of Los Angeles 1996, 2018; CC Carto 2017). As a result, fault rupture is not anticipated on the project site, and no impacts would occur.

ii) Strong seismic ground shaking?

Less-Than-Significant Impact. As with all areas in Southern California, the proposed project site is located in a seismically active region, within which are numerous known earthquake faults. As previously discussed in 3.6(a)(i), there are known earthquake faults approximately 2 and 4 miles from the project site. In addition, many other regional active faults are capable of producing severe seismically induced ground shaking at the site. As a result, the proposed project could be exposed to strong seismically induced ground shaking.

However, project structures would be designed and constructed in accordance with the latest version of the California Building Code and the City Building Code relative to seismic criteria. Preliminary geotechnical analysis of NHPS has determined that areas beneath the treatment facilities (the pre-filtration system, hydrogen peroxide storage, injection facility, UV reactor building, and the LPGAC system) should be over-excavated. This would entail the excavation of the soil beneath these facilities to a depth of approximately 8 feet. The soil would then be returned to the excavated areas and recompacted in vertical lifts to provide a solid foundation beneath the proposed facilities. Such engineering would reduce the potential for seismically induced settlement that would adversely impact the proposed project structures and personnel.

Design and construction in accordance with the latest version of the California Building Code and the City Building Code provides a measure of safety for people and structures exposed to potential substantial adverse effects involving seismic-related ground shaking. As a result, neither people nor structures would be exposed to potential substantial adverse effects, and impacts would be less than significant.

iii) Seismic-related ground failure, including liquefaction?

Less-Than-Significant Impact. The project site has not been identified as being susceptible to liquefaction (CGS 1998; City of Los Angeles 1996, 2018). However, as previously discussed in Section 3.6(a)(ii), the proposed project has the potential to be exposed to strong seismic ground shaking that could result in seismically induced ground failure. However, as stated in Section 3.6(a)(ii), unconsolidated soils beneath proposed structures would be over-excavated and recompacted to ensure that structural foundations are seated in competent soils. Project structures would be designed and constructed in accordance with the latest version of the California Building Code and the City Building Code relative to seismic criteria, which provides a measure of safety for people and structures exposed to potential substantial adverse effects involving seismic-related ground shaking. As a result, impacts would be less than significant.

iv) Landslides?

No Impact. The proposed project site and surrounding area is relatively flat and the site has not been mapped as a landslide hazard area (CGS 1998; City of Los Angeles 2018). Therefore, people or structures on the site would not be exposed to landslide hazards, and no impacts would occur.

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

Less-Than-Significant Impact. Construction of the proposed project would result in ground surface disturbance during grading and excavation that could create the potential for erosion to occur. Because the proposed project would involve construction on an area greater than 1 acre (including the NHPS construction area, remediation well collector line, and sewer laterals), it would require compliance with the General Construction Activity NPDES Permit (Order No. 2009-0009-DWQ, as amended by Order No. 2010-0014-DWQ, NPDES No. CAS000002), which requires the preparation of and compliance with a Stormwater Pollution Prevention Plan (SWPPP). The SWPPP must include erosion control measures such as covering exposed soil stockpiles, protecting the perimeter of the construction site with sediment barriers, and protecting storm drain inlets.

During operation, site conditions at the NHPS would be generally similar to existing conditions, with the exception of new water treatment equipment on the site. The presence of this equipment would not increase soil erosion or the loss of topsoil on the site. Adherence to existing regulations requiring stormwater management and erosion control during construction and operations (i.e., Los Angeles RWQCB Notice of Intent process and SWPPP) would ensure that soil erosion impacts would be less than significant.

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 on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

Less-Than-Significant Impact. The proposed project site is not located in an area identified as being susceptible to landslides or liquefaction (and associated lateral spreading). As discussed in Section 3.6(a)(ii), unconsolidated soils beneath proposed structures would be over-excavated and recompacted to ensure that structural foundations are seated in competent soils and would not be susceptible to subsidence, liquefaction, or collapse. Project structures would be designed and constructed in accordance with the latest version of the California Building Code and the City Building Code relative to seismic and other geotechnical criteria, which provides a measure of safety for people and structures exposed to potential substantial adverse effects involving various forms of ground failure. As a result, impacts would be less than significant.

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. Soil expansion occurs in clay-rich soil as a result of repeated cycles of wetting and drying. The soils expand when wet and contract when dry. Soil expansion can result in cracking and distress of structural foundations and supports. Such soil is not anticipated at the project site. However, soil sampling and testing for potentially expansive soils is standard protocol in geotechnical investigations, as required by the California Building Code and City Building Code. In the event that expansive soils are present, standard mitigating soils engineering includes removal of the upper layer of clay-rich soil and replacement with non-expansive soil prior to construction. All development in the City is required to comply with the California Building Code and City Building Code. As required by California Building Code, Chapters 16, 16A, 18, and 18A, for the construction of new buildings and/or structures, specific engineering design would be provided to minimize hazards to property caused by expansive soils. As a result, impacts would be less than significant.

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 proposed project does not include installation of septic tanks or alternative wastewater disposal systems. During project construction, sanitary waste would be handled by temporary portable chemical toilets. The waste from temporary facilities would be removed by a private contractor and disposed of an approved off-site location. During project operations, existing facilities at the NHPS would be used to handle sanitary waste. As such, no impacts would occur relative to the ability of on-site soils to support septic tanks or alternative wastewater disposal systems.

References

CC Carto (Chubb Custom Cartography). 2017. "Custom Vector Maps." Accessed March 16, 2018. https://www.cccarto.com/faults/la_faults/.

CGS (California Geological Survey). 1998. *Van Nuys Quadrangle Seismic Hazard Zones*, released February 1, 1999. Accessed March 16, 2018. http://gmw.conservation.ca.gov/SHP/EZRIM/Maps/VAN_NUYS_EZRIM.pdf.

CGS. 2010. *Fault Activity Map of California*. Geologic Data Map No. 6, Scale 1:750,000.

City of Los Angeles. 1996. Safety Element of the Los Angeles City General Plan. Accessed March 16, 2018. https://planning.lacity.org/cwd/gnlpln/saftyelt.pdf.

City of Los Angeles. 2018. Zimas "Seismic Hazards." Web Map Application. Accessed March 16, 2018. http://zimas.lacity.org/.

3.7 Greenhouse Gas Emissions

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
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?	☐	☐	☒	☐

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. Climate change refers to any significant change in measures of climate, such as temperature, precipitation, or wind patterns, lasting for an extended period of time (decades or longer). Earth's temperature depends on the balance between energy entering and leaving the planet's system, and many factors (natural and human) can cause changes in Earth's energy balance. The greenhouse effect is the trapping and build-up of heat in the atmosphere near Earth's surface (the troposphere). The greenhouse effect is a natural process that contributes to regulating Earth's temperature, and it creates a livable environment on Earth. Human activities that emit additional greenhouse gases (GHGs) to the atmosphere increase the amount of infrared radiation that gets absorbed before escaping into space, thus enhancing the greenhouse effect and causing Earth's surface temperature to rise. Global climate change is a cumulative impact; a project contributes to this impact through its incremental contribution combined with the cumulative increase of all other sources of GHGs. Thus, GHG impacts are recognized exclusively as cumulative impacts (CAPCOA 2008).

A GHG is any gas that absorbs infrared radiation in the atmosphere; in other words, GHGs trap heat in the atmosphere. As defined in California Health and Safety Code, Section 38505(g), for purposes of administering many of the state's primary GHG emissions reduction programs, GHGs include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF_6), and nitrogen trifluoride (NF_3) (see also CEQA Guidelines, Section 15364.5).[9] The three GHGs evaluated herein are CO_2, CH_4, and N_2O because these gases would be emitted during project construction and/or operations.

The Intergovernmental Panel on Climate Change developed the global warming potential (GWP) concept to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. The reference gas used is CO_2; therefore, GWP-weighted emissions are measured in metric tons of CO_2 equivalent (MT CO_2e). Consistent with CalEEMod Version 2016.3.2, this GHG emissions analysis assumed the GWP for CH_4 is 25 (i.e., emissions of 1 MT of CH_4 are equivalent to emissions of 25 MT of CO_2), and the GWP for N_2O is 298, based on the Intergovernmental Panel on Climate Change Fourth Assessment Report (IPCC 2007).

As discussed in Section 3.3, the project is located within the jurisdictional boundaries of the SCAQMD. In October 2008, the SCAQMD proposed recommended numeric CEQA significance thresholds for GHG emissions for lead agencies to use in assessing GHG impacts of residential and commercial development projects as presented in its *Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold* (SCAQMD 2008). This document, which builds on the previous guidance prepared by the California Air Pollution Control Officers Association, explored various approaches for establishing a significance threshold for GHG emissions. The draft interim CEQA thresholds guidance document was not adopted or approved by the Governing Board. However, in December 2008, the SCAQMD adopted an interim 10,000 MT CO_2e per-year screening level threshold for stationary source/industrial projects for which the SCAQMD is the lead agency (see SCAQMD Resolution No. 08-35, December 5, 2008). The 10,000 MT CO_2e per-year threshold, which was derived from GHG reduction targets established in Executive Order S-3-05, was based on the conclusion that the threshold was consistent with achieving an emissions capture rate of 90% of all new or modified stationary source projects.

The SCAQMD formed a GHG CEQA Significance Threshold Working Group to work with SCAQMD staff on developing GHG CEQA significance thresholds until statewide significance thresholds or guidelines are

---

[9] Climate-forcing substances include GHGs and other substances such as black carbon and aerosols. This discussion focuses on the seven GHGs identified in the California Health and Safety Code, Section 38505; impacts associated with other climate-forcing substances are not evaluated herein.

established. From December 2008 to September 2010, the SCAQMD hosted working group meetings and revised the draft threshold proposal several times, although it did not officially provide these proposals in a subsequent document. The SCAQMD has continued to consider adoption of significance thresholds for residential and general land use development projects. The most recent proposal issued by SCAQMD, issued in September 2010, uses the following tiered approach to evaluate potential GHG impacts from various uses (SCAQMD 2010):

Tier 1. Determine if CEQA categorical exemptions are applicable. If not, move to Tier 2.

Tier 2. Consider whether or not the proposed project is consistent with a locally adopted GHG reduction plan that has gone through public hearing and CEQA review, that has an approved inventory, includes monitoring. If not, move to Tier 3.

Tier 3. Consider whether the project generates GHG emissions in excess of screening thresholds for individual land uses. The 10,000 MT CO_2e per-year threshold for industrial uses would be recommended for use by all lead agencies. Under option 1, separate screening thresholds are proposed for residential projects (3,500 MT CO_2e per year), commercial projects (1,400 MT CO_2e per year), and mixed-use projects (3,000 MT CO_2e per year). Under option 2, a single numerical screening threshold of 3,000 MT CO_2e per year would be used for all non-industrial projects. If the project generates emissions in excess of the applicable screening threshold, move to Tier 4.

Tier 4. Consider whether the project generates GHG emissions in excess of applicable performance standards for the project service population (population plus employment). The efficiency targets were established based on the goal of Assembly Bill (AB) 32 to reduce statewide GHG emissions to 1990 levels by 2020. The 2020 efficiency targets are 4.8 MT CO_2e per-service population for project-level analyses and 6.6 MT CO_2e per-service population for plan-level analyses. If the project generates emissions in excess of the applicable efficiency targets, move to Tier 5.

Tier 5. Consider the implementation of CEQA mitigation (including the purchase of GHG offsets) to reduce the project efficiency target to Tier 4 levels.

To determine the project's potential to generate GHG emissions that would have a significant impact on the environment, the project's GHG emissions were compared to the SCAQMD recommended industrial quantitative threshold of 10,000 MT CO_2e per year. Per the SCAQMD guidance, construction emissions should be amortized over the operational life of the project, which is assumed to be 30 years (SCAQMD 2008). This impact analysis, therefore, sums the projected annual operational GHGs with the amortized construction emissions and compares the total to the proposed SCAQMD threshold of 10,000 MT CO_2e per year.

Construction Emissions

Construction of the project would result in GHG emissions primarily associated with the use of off-road construction equipment, on-road trucks, and worker vehicles. As described in Section 3.3, Air Quality, a spreadsheet model was used to calculate the annual GHG emissions. On-site sources of GHG emissions include off-road equipment; off-site sources include trucks and worker vehicles. As shown in Table 3.7-1, the estimated total GHG emissions during project construction would be approximately 1,300 MT CO_2e. Amortized over 30 years, construction GHG emissions would be approximately 43 MT CO_2e per year.

Operational Emissions

Operation of the proposed project would result in GHG emissions primarily through energy use (generation of electricity consumed by the proposed project). GHGs would also be generated by the infrequent motor vehicle trips to the project site for facility maintenance activities. As described in Section 3.3, Air Quality, a spreadsheet model was used to calculate the annual GHG emissions based on the operational on-road vehicles anticipated. The minimal on-road vehicle activity would consist of refilling of the hydrogen peroxide tank (once per month), replacement of the UV lamps (once every 20 months), carbon replacement (once every 3 years for each LPGAC vessel), and chlorine cylinder replacement (15 deliveries per month). GHGs from energy use were calculated based on total energy usage of the facility (approximately 7.79 million kWh/year) and indirect GHG emission factors from electricity generation for LADWP (adjusted for the Renewable Portfolio Standard). Detailed assumptions, including GHG emissions from electricity generation, and estimated daily worker and haul truck trips, are provided in Appendix A. Table 3.7-1 summarizes the GHG emissions that would be generated by development of the proposed project.

Table 3.7-1. Estimated Annual GHG Emissions

Source	CO_2e
	Metric Tons per Year
Operational On-Road Vehicles	26
Operational Electricity Usage	2,790
Total Operational GHGs	**2,815**
Construction – Year 2019	664
Construction – Year 2020	597
Construction – Year 2021	39
Total Construction GHGs	**1,300**
Construction GHGs Amortized Over 30 Years	43
Total Operational + Amortized Construction GHGs	**2,859**
SCAQMD Recommended Threshold	*10,000*
Exceeds Threshold?	**No**

Source: SCAQMD 2010.
Notes: GHG = greenhouse gas; CO2 = carbon dioxide; CH4 = methane; N2O = nitrous oxide; CO2e = carbon dioxide equivalent
See Appendix A for complete results.

As shown in Table 3.7-1, the project would result in approximately 2,815 MT CO_2e per year from operations, for 2,859 MT CO_2e per year when summed with the amortized construction GHG emissions. Estimated annual increased GHG emissions associated with development of the proposed project would not exceed the threshold of 10,000 MT CO_2e per year. Therefore, operational GHG impacts for the proposed project would be less than significant.

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. The City of Los Angeles has developed action plans to reduce GHG emissions and thereby reduce their jurisdiction's contribution to global climate change concerns. As detailed below, none of these plans are Qualified GHG Emissions Reduction Plans under CEQA per the requirements outlined in CEQA, Section 15183.5(D); therefore, no CEQA document can tier from these agency's plans. There is currently no local guidance that would be specifically applicable to the CEQA analysis of the project, and no mandatory GHG plans, policies, or regulations or finalized agency guidelines would apply to implementation of the project.

The City of Los Angeles adopted Green LA – An Action Plan to Lead the Nation in Fighting Global Warming (Green LA Climate Action Plan) in May 2007 that set forth the goal of reducing City GHGs by to 35% below 1990 levels by 2030 (City of Los Angeles 2007). The City of Los Angeles's Green LA Climate Action Plan GHG reductions are based on actions in key sectors, including energy, water, transportation, waste, Port of Los Angeles, airports, open space and greening, green economy, and adaptation strategies.

In April 2015, City of Los Angeles's first-ever Sustainable City pLAn was released. This plan sets the course for a cleaner environment and a stronger economy, with a commitment to equity as its foundation. The plan is made up of short term (by 2017) and longer term (by 2025 and 2035) targets in 14 categories that will advance the City of Los Angeles's environment, economy and equity (City of Los Angeles 2015). The plan sets GHG emissions reduction targets of 45% by 2025, 60% by 2035, and 80% by 2050, all against a 1990 baseline, and GHG efficiency targets for Los Angeles's economy of improvement by 55% in 2025 and 75% in 2035 from 2009 baseline levels[10] (City of Los Angeles 2015). The first annual Sustainable City pLAn report (2015–2016), determined that the City of Los Angeles's emissions are 20% below the 1990 baseline as of 2013, putting the City of Los Angeles nearly halfway to the 2025 pLAn reduction target of 45% (City of Los Angeles 2017).

In January 2017, LADWP approved the 2016 Power Integrated Resource Plan (IRP), which serves as a comprehensive 20-year roadmap that guides the LADWP Power System in its efforts to supply reliable electricity in an environmentally responsible and cost effective manner. One of the focuses of the 2016 IRP is

---

[10] GHG efficiency is the amount of GHG emissions emitted per dollar of economic productivity, which is assumed to be 44.5 MT CO_2e per million dollars of metro area gross domestic product in 2009 (City of Los Angeles 2015).

to reduce GHG emissions while ensuring reliable electric service and maintaining cost competitive rates by examining multiple strategies to reduce GHG emissions, including early coal replacement, an accelerated renewable portfolio standard, local solar, energy storage, and transportation electrification. The 2016 IRP identified accelerating transportation electrification as a potential to provide a significant opportunity to dramatically shift and reduce GHG emissions from the transportation sector. Notable updates in the 2016 IRP include a renewable portfolio standard goal of 55% by 2030 and 65% by 2036, the sale of LADWP's 21% share in coal-fired Navajo Generating Station, and completion of a reliability study titled, "Maximum Distribution Renewable Energy Penetration Study" (LADWP 2017). The IRP determined that a combination of these GHG strategies will reduce LADWP's GHG emissions to nearly 70% below 1990 levels over the next 20 years and over 85% below 1990 levels overall when considering GHG emissions absorbed from the transportation sector (LADWP 2017).

As discussed, neither the City of Los Angeles's Green LA Plan, the Sustainable City pLAn, nor the LADWP 2016 IRP, are qualified GHG emission reduction plans under CEQA; however, the proposed project would support these plans by restoring the beneficial uses of groundwater, thereby restoring LADWP's capability to operate its existing well fields consistent with historic levels to help respond to short-term variability in water supply and demand. These steps have the potential to reduce dependency on energy-intensive importation of water supplies from out of the region. As discussed in Section 1.3 of the Initial Study/MND, in accordance with the 2015 City of Los Angeles Urban Water Management Plan, the City plans to reduce the purchase of imported water by 50% by 2025 and obtain 50% of its potable water from local sources by 2035. The proposed project would support these goals.

The Climate Change Scoping Plan, approved by CARB in 2008 and updated in 2014 and 2017, provides a framework for actions to reduce California's GHG emissions and requires CARB and other state agencies to adopt regulations and other initiatives to reduce GHGs. The Scoping Plan is not directly applicable to specific projects, nor is it intended to be used for project-level evaluations.[11] Under the Scoping Plan, however, there are several state regulatory measures aimed at the identification and reduction of GHG emissions. CARB and other state agencies have adopted many of the measures identified in the Scoping Plan. Most of these measures focus on area source emissions (e.g., energy usage, high-GWP GHGs in consumer products) and changes to the vehicle fleet (hybrid, electric, and more fuel-efficient vehicles) and associated fuels, among others.

Regarding consistency with Senate Bill (SB) 32 (goal of reducing GHG emissions to 40% below 1990 levels by 2030) and Executive Order S-3-05 (goal of reducing GHG emissions to 80% below 1990 levels by 2050),

---

[11] The Final Statement of Reasons for the amendments to the CEQA Guidelines reiterates the statement in the Initial Statement of Reasons that "the Scoping Plan may not be appropriate for use in determining the significance of individual projects because it is conceptual at this stage and relies on the future development of regulations to implement the strategies identified in the Scoping Plan" (CNRA 2009).

there are no established protocols or thresholds of significance for that future-year analysis. However, CARB has expressed optimism with regard to both the 2030 and 2050 goals. It states in the *First Update to the Climate Change Scoping Plan* that "California is on track to meet the near-term 2020 GHG emissions limit and is well positioned to maintain and continue reductions beyond 2020 as required by AB 32" (CARB 2014). With regard to the 2050 target for reducing GHG emissions to 80% below 1990 levels, the *First Update to the Climate Change Scoping Plan* states the following (CARB 2014):

> This level of reduction is achievable in California. In fact, if California realizes the expected benefits of existing policy goals (such as 12,000 megawatts of renewable distributed generation by 2020, net zero energy homes after 2020, existing building retrofits under Assembly Bill 758, and others) it could reduce emissions by 2030 to levels squarely in line with those needed in the developed world and to stay on track to reduce emissions to 80% below 1990 levels by 2050. Additional measures, including locally driven measures and those necessary to meet federal air quality standards in 2032, could lead to even greater emission reductions.

In other words, CARB believes that the state is on a trajectory to meet the 2030 and 2050 GHG reduction targets set forth in AB 32, SB 32, and Executive Order S-3-05. This is confirmed in the *2017 Climate Change Scoping Plan Update*, which states (CARB 2017):

> The Proposed Plan builds upon the successful framework established by the Initial Scoping Plan and First Update, while also identifying new, technologically feasibility and cost-effective strategies to ensure that California meets its GHG reduction targets in a way that promotes and rewards innovation, continues to foster economic growth, and delivers improvements to the environment and public health, including in disadvantaged communities. The Proposed Plan is developed to be consistent with requirements set forth in AB 32, SB 32, and AB 197.

The project would not interfere with implementation of GHG reduction goals for 2030 or 2050 because the project would not exceed the SCAQMD's recommended threshold of 10,000 MT CO_2e per year. In addition, by remediating well fields and restoring the use of local water supplies, the project is consistent with the GHG emission reduction measures in the Scoping Plan and would not conflict with the state's trajectory toward future GHG reductions. Therefore, the project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. This impact would be less than significant.

References

California Health and Safety Code, Section 38505. Greenhouse Gas Definitions. Amended September 4, 2015.

CAPCOA (California Air Pollution Control Officers Association). 2008. CEQA & Climate Change: Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act. January 2008.

CARB (California Air Resources Board). 2014. "First Update to the AB 32 Scoping Plan." May 2014. Accessed March 2018. https://www.arb.ca.gov/cc/scopingplan/2013_update/first_update_climate_change_scoping_plan.pdf.

CARB. 2017. The 2017 Climate Change Scoping Plan Update. January 20, 2017. Accessed March 2018. https://www.arb.ca.gov/cc/scopingplan/2030sp_pp_final.pdf.

City of Los Angeles. 2007. Green LA – An Action Plan to Lead the Nation in Fighting Global Warming. May 2007. Accessed March 2018. http://environmentla.org/pdf/GreenLA_CAP_2007.pdf.

City of Los Angeles. 2015. Sustainable City pLAn. Office of the Mayor. Accessed March 2018. https://www.lamayor.org/sites/g/files/wph446/f/landing_pages/files/The%20pLAn.pdf.

City of Los Angeles. 2017. Sustainable City Plan First Annual Report 2015-2016. Accessed March 2018. https://www.lamayor.org/sites/g/files/wph446/f/landing_pages/files/Plan-annual%20update-online.pdf.

CNRA (California Natural Resources Agency). 2009. "Final Statement of Reasons for Regulatory Action: Amendments to the State CEQA Guidelines Addressing Analysis and Mitigation of Greenhouse Gas Emissions Pursuant to SB97." Sacramento, California: CNRA. December 2009. Accessed March 2018. http://resources.ca.gov/ceqa/docs/Final_Statement_of_Reasons.pdf.

IPCC (Intergovernmental Panel on Climate Change). 2007. IPCC Fourth Assessment Synthesis of Scientific-Technical Information Relevant to Interpreting Article 2 of the U.N. Framework Convention on Climate Change.

LADWP (Los Angeles Department of Water and Power). 2016. 2016 Power Integrated Resource Plan. December 2016. Accessed March 2018. https://www.ladwp.com/ladwp/faces/wcnav_externalId/a-p-doc?_adf.ctrl-state=12kf3loaxj_4&_afrLoop=270981639317446.

LADWP. 2017. *Maximum Distribution Renewable Energy Penetration Study*.

SCAQMD (South Coast Air Quality Management District). 2008. Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold. October 2008.

SCAQMD. 2010. "Greenhouse Gas CEQA Significance Threshold Stakeholder Working Group Meeting #15" [PowerPoint slides]. September 28, 2010. Accessed March 2018. http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/year-2008-2009/ghg-meeting-15/ghg-meeting-15-main-presentation.pdf?sfvrsn=2.

3.8 Hazards and Hazardous Materials

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
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 that 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 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?	☐	☐	☐	☒
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?	☐	☐	☐	☒

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

Less-Than-Significant Impact. Construction of the proposed project would include activities involving relatively small quantities of hazardous materials and petroleum products, such as gasoline, diesel fuel, oil, lubricants, paint, and solvents. Construction activities would be short-term in nature and the types of materials involved are not considered acutely hazardous. The handling of these materials is subject to federal, state, and local health and safety requirements. In addition, construction would be completed in accordance with a General Construction Activity NPDES Permit (Order No. 2009-0009-DWQ, as amended by Order No. 2010-0014-DWQ, NPDES No. CAS000002), which requires a SWPPP and development of Best Management Practices (BMPs) to address potential pollutants generated by the construction activities. Therefore, project construction would not create a significant hazard to the public or environment as a result of the routine transport, use, or disposal of hazardous materials during construction.

Long-term operation of the proposed project would involve the transport, use, and disposal of materials that could be potentially hazardous. These materials would consist primarily of hydrogen peroxide, UV lamps, and the carbon medium in the LPGAC vessel.

Hydrogen Peroxide

In the concentrations that would be required for the proposed project (27.5%), hydrogen peroxide is considered a hazardous material that is regulated at the federal and state level. As discussed in Section 2.3 of this Initial Study/MND, at 27.5% concentration, hydrogen peroxide is classified as a Class 1 oxidizer, which is the lowest class in terms of combustion hazard. A Class 1 oxidizer can slightly increase the burning rate of combustible materials, but it does not cause spontaneous ignition when it comes in contact with such materials. Nonetheless, to provide additional safeguards, the hydrogen peroxide facilities at NHPS would be designed based on the criteria for a Class 2 oxidizer, which includes hydrogen peroxide up to 52% concentration. These criteria primarily provide for greater safety distances around the hydrogen peroxide facilities.

Workers would be required to follow state and federal laws governing the handling, storage, and transport of hydrogen peroxide. This material would be delivered to the site by truck approximately four times per month (once for each of the four hydrogen peroxide storage tanks) and would be transferred to the proposed hydrogen peroxide storage facility at a designated truck off-loading area. The design of the proposed project would incorporate the following BMPs to minimize potential health and safety impacts associated with hydrogen peroxide:

- The off-loading area would be equipped with spill and leak containment to prevent the spread and release of the chemical in the event that a spill were to occur during deliveries.

- The hydrogen peroxide would be transferred from the truck to the storage tanks via a hydrogen peroxide fill station, which would be equipped with an emergency shut off.
- The facility would have a hydrogen peroxide leak sensor, spill and leak containment beneath the storage tanks and associated chemical lines, and a sump pump.
- The facility would include a shower and eyewash for workers, in the unlikely event of exposure to hydrogen peroxide.
- The hydrogen peroxide injection vault would be equipped with a leak sensor, a sump, and sump pumps.

Based on these containment and safety features included in the design of the hydrogen peroxide storage facility and injection vaults, and based on required compliance with state and federal regulations mandating safe handling and storage of hydrogen peroxide, use of this chemical on the proposed project site is not expected to cause a significant hazard to the public or the environment.

UV Lamps

UV lamps, including those that would be used for the proposed project, typically contain mercury. As such, in the unlikely event that a lamp were to break during transport, operation, or disposal, mercury could be released into the environment, and the workers handling the lamps could be exposed to mercury. This substance is a hazardous material that is regulated at the state and federal level as universal waste (USEPA 2018), and exposure could result in significant adverse impacts. However, the proposed project incorporates the following BMPs to minimize potential health and safety impacts in the event of a mercury release:

- Workers will comply with applicable state and federal laws establishing safety protocol for cleanup and disposal of mercury.
- In the unlikely event that mercury is released into the water supply due to a lamp break during operations, the amount of water that flows through LADWP's distribution system would be sufficient to dilute the mercury to below the applicable MCL. The broken lamps would then be removed and disposed of in accordance with the state and federal laws governing the handling and disposal of mercury.
- Due to the mercury content in the lamps, the lamps are considered a hazardous waste and are prohibited from being discarded into landfills (USEPA 2017). The used UV lamps would be temporarily stored on site in the UV lamp storage room and then returned to the manufacturer for recycling.

Based on these containment and safety features, and based on required compliance with state and federal regulations mandating safe handling and storage of UV lamps containing mercury, use of this chemical on the proposed project site is not expected to cause a significant hazard to the public or the environment.

Granular Activated Carbon

The LPGAC would not pose a hazard to the public or the environment. LPGAC vessels are designed with a closed-loop carbon exchange, so that spent carbon is removed and fresh carbon is refilled without exposure to the environment. The spent carbon would be transferred to a processing or disposal facility, in accordance with state and federal laws regulating transport and disposal.

LPGAC has the potential to create hazardous low-oxygen conditions for workers in certain circumstances. Activated carbon removes oxygen from air. In closed or partially closed containers and vessels, oxygen depletion may reach hazardous levels, exposure to which could result in a significant adverse impact. However, workers will not enter any vessels containing LPGAC since this material is added to and removed from the tanks externally, and all applicable state and federal worker safety requirements would be implemented. As a result, the LPGAC operation and maintenance would not cause a hazard to the public or to the environment and impacts would be less than significant.

While potentially hazardous materials would be involved with operation of the proposed project, compliance with existing laws regulating these substances, in combination with facilities and safety procedures listed above, would ensure that these materials would be handled properly and that spills would be contained and addressed in a safe manner in the unlikely event that a spill were to occur. Therefore, impacts related to the routine use, transport, and disposal of hazardous materials in association with project operations would be less than significant.

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. As described in Section 3.8(a), construction of the proposed project would include activities involving relatively small quantities of hazardous materials and petroleum products, such as gasoline, diesel fuel, oil, lubricants, paint, and solvents. However, construction activities would be short-term in nature, and the types of materials involved are not considered acutely hazardous. The handling of these materials is subject to federal, state, and local health and safety requirements. In addition, construction would be completed in accordance with a General Construction Activity NPDES Permit, which requires a SWPPP and development of BMPs to address potential pollutants generated by the construction activities. Therefore, project construction would not create a significant hazard to the public or environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

Also as described in Section 3.8(a), hazardous materials would be used during operation of the proposed project. In the unlikely event that these materials were to be accidentally released to the environment during operations, those substances could pose a hazard to the public and to the environment. However, the substances discussed above (i.e., hydrogen peroxide and mercury) would be handled in accordance with state and federal laws governing the storage, use, transport, and disposal of such materials. Any release of hazardous materials would be handled in a manner that would not pose a significant hazard to the public or the environment. As such, impacts related to an accidental release of these materials into the environment would be less than significant.

The proposed project treatment equipment would remove COCs in groundwater that have migrated and continue to migrate to the RT Well Field. The treated water would be continuously monitored and tested under the project's Groundwater Monitoring and Compliance Plan to ensure that all water quality parameters were being met. This would include the implementation of a DDW Extremely Impaired Source Water Quality Surveillance Plan to provide early warning if unexpectedly high concentrations and/or new contaminants (i.e., those not specifically targeted by the proposed project) are encountered within the capture zone of the well field. Early warning allows for timely and appropriate actions if required to reduce the risks posed to production wells by unexpected changes in groundwater quality. Therefore, project operations would not create a significant hazard to the public or environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

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?

No Impact. The closest school is Bellingham Elementary School, located approximately 2,000 feet (0.4 miles) southwest of the project site. As such, the proposed project would not be located within a quarter mile of an existing or proposed school. No impact would occur.

d) Would the project be located on a site that 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?

Less-Than-Significant Impact. The existing NHPS property is not included on any lists compiled pursuant to Government Code, Section 65962.5 (i.e., the Cortese List). However, the proposed remediation well collector line traverses an industrial area with sites listed by GeoTracker in proximity to the alignment. A closed cleanup site is located at 11747 Vose Street, which backs up to the power line corridor. VOCs were detected in soil and/or groundwater at this site, which was closed effective December 22, 2014. In addition, a closed clean-up site is located at 11800 Sherman Way, which is also located immediately adjacent to the power line corridor. Chromium and VOCs were detected in soil and/or groundwater at this site, which was also closed effective December 22, 2014 (CalEPA 2018; DTSC 2018; GeoTracker 2018). Closed sites indicate that no further site assessment or remediation is required by the lead agency at any given site. Therefore, the potential for construction of the remediation well collector line, and other project components, to create a significant hazard to the public or the environment is low, and impacts are considered less than significant.

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?

Less-Than-Significant Impact. The Hollywood Burbank Airport is located approximately 1.1 miles east of the NHPS block, but the proposed project site is not located within the Airport Influence Area or designated Runway Protection Zones (RPZs). The closest RPZ is located approximately 0.8 miles east of the NHPS block (Los Angeles County Airport Land Use Commission 2003). In addition, the project would not include facilities that would be of a height that would represent an obstruction to air navigation. New facilities would not exceed heights of existing facilities on the site. Based on the distance to the closest airport and RPZ, the project would not result in exposure of people residing or working in the project site to safety hazards associated with the Hollywood Burbank Airport. Therefore, impacts are considered less than significant.

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. No private airstrips are located in the within the vicinity of the project site; therefore, no impacts would occur.

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

Less-Than-Significant Impact. Much of the proposed project would be located within and adjacent to the existing NHPS site. Access to the site would continue to be provided through three of the four existing driveways off Hinds Avenue, plus one new driveway off Hinds Avenue, near Dehougne Street. Emergency access to or egress from the NHPS or surrounding areas would not be adversely affected. Construction of the portions of the proposed collector line within public streets, as well as the proposed sewer laterals, would require temporary lane and/or street closures. This work would be completed in accordance with City of Los Angeles Department of Public Works requirements with respect to working in public streets. As such, development of the proposed project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan, and impacts would be less than significant.

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 located within an urban area, and no wildlands are located on site or in the vicinity. Therefore, no impacts would occur relative to wildland fires.

References

CalEPA (California Environmental Protection Agency). 2018. "Cortese List Data Resources." Accessed March 21, 2018. https://calepa.ca.gov/SiteCleanup/CorteseList/.

DTSC (Department of Toxic Substances Control). 2018. "EnviroStor Sites and Facilities." Accessed March 21, 2018. http://www.envirostor.dtsc.ca.gov/public/map/?global_id=71002933.

GeoTracker. 2018. Environmental Database. Accessed March 21, 2018. https://geotracker.waterboards.ca.gov/map/?CMD=runreport&myaddress=11805+vanowen.

Los Angeles County Airport Land Use Commission. 2003. "Airport Influence Area." Accessed March 22, 2018. http://planning.lacounty.gov/assets/upl/project/aluc_airport-burbank.pdf.

USEPA (U.S. Environmental Protection Agency). 2017. "Recycling and Disposal of CFLs and Other Bulbs that Contain Mercury." Accessed March 20, 2018. https://www.epa.gov/cfl/recycling-and-disposal-cfls-and-other-bulbs-contain-mercury.

USEPA. 2018. "Universal Waste." Accessed March 20, 2018. https://www.epa.gov/hw/universal-waste.

3.9 Hydrology and Water Quality

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
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 on- or off-site?	☐	☐	☒	☐

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
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 on- or off-site?	☐	☐	☒	☐
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted 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?	☐	☐	☐	☒

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

Less-Than-Significant Impact with Mitigation Incorporated. Water quality standards applicable to the proposed project consist of two types: those related to the quality of drinking water delivered by LADWP to its customers, and those related to the protection and enhancement of water quality in the environment (i.e., surface water and groundwater quality). Drinking water standards are set under the federal Safe Drinking Water Act (SDWA) and the California SDWA. Regulations implementing the California SDWA are defined in the California Health and Safety Code and Titles 17 and 22 of the California Code of Regulations. Environmental water quality standards are set under the Clean Water Act (federal law) and the Porter-Cologne Water Quality Control Act (state law). The California Legislature assigned the primary responsibility to administer and enforce statutes related to water quality to the State Water Resources Control Board (SWRCB) and its nine RWQCBs.

The proposed project's compliance with regulatory standards with respect to drinking water quality, surface water quality, and groundwater quality is discussed below.

Drinking Water Quality

LADWP monitors its drinking water sources and distribution systems in accordance with California Code of Regulations, Title 22, Division 4, Chapter 15, Domestic Water Quality and Monitoring. LADWP's existing DDW domestic water supply permit requires extensive water quality monitoring of its raw water supplies (i.e., reservoirs and groundwater), as well as within its treatment and distribution system to ensure water delivered to customers is safe and compliant with all drinking water statutes (California Water Boards 2018). LADWP is required to monitor its groundwater sources for a wide range of constituents, including bacteriological constituents; general physical, secondary, and inorganic constituents; nitrate and nitrite; radiological constituents; and various COCs. LADWP publishes yearly water quality monitoring reports demonstrating that water entering its distribution systems meets all applicable water quality standards.

As discussed in Section 2, Project Description, of this Initial Study/MND, monitoring has revealed that COCs are present in the groundwater pumped at numerous RT wells. This contamination is attributable to past improper handling and disposal of chemical compounds that were used in various manufacturing and industrial processes. Because the monitored levels of these contaminants at the wells sometimes exceed regulatory limits, the use of certain RT wells has been curtailed or suspended.

The proposed project would install treatment equipment capable of removing the COCs from the RT well water to below established contamination limits consistent with requirements intended to protect public health and the environment. As discussed in Section 2, the purpose of the proposed project is to minimize the spread of and remove contaminant mass from the affected area of the groundwater basin, limit further degradation of the basin downgradient of the RT wells, and assist in the restoration of beneficial uses of the groundwater basin, including water storage and extraction. Removing the COCs from the well water to below the established limits would ensure the quality of the well field water and achieve the remedial action objectives.

To implement the proposed project, an update to the LADWP's Domestic Water Supply Permit would be required. The project would include a groundwater pumping plan for capture and control of the COC plumes at the RT Well Field; a treatment plan for removal of contaminants from the pumped water, consistent with applicable regulations and requirements and in a manner that protects public health and the environment; and a groundwater monitoring and compliance plan for ensuring that plume control is being achieved and that treated water meets all necessary state and federal drinking water standards.

In addition, the LADWP would continue to comply with applicable regulations and the terms of its water supply permit, continue to implement its extensive water quality monitoring activities, and would implement corrective actions where needed to ensure the continued safety and reliability of its water supply. In the event previously unidentified contaminants (i.e., those not specifically targeted by the proposed project) are detected at concentrations exceeding applicable levels, LADWP would take appropriate action, which would include notifying the DDW, increasing monitoring, and if necessary, deactivation of wells until the issue can be addressed.

Therefore, the impact of the proposed project on drinking water quality would be less than significant and would in fact be beneficial.

Surface Water Quality

Water quality objectives, plans, and policies for surface waters are established in the *Water Quality Control Plan for the Los Angeles Region* (Basin Plan), as amended. The Basin Plan establishes water quality objectives based on the beneficial uses identified for surface waters. The plan aims to address threats to water quality through various programs and policies, such as establishment of total maximum daily loads of pollutants. The proposed project is located in a highly urbanized setting served by a network of storm drains that eventually discharge to the Tujunga Wash Channel and the Los Angeles River. These water bodies are impaired under the Clean Water Act, Section 303(d), with the following pollutants: ammonia, coliform bacteria, copper, trash, lead, and runoff nutrients (SWRCB 2017). Effluent from treatment plants and process water discharges make up a significant fraction of flows in these receiving waters. Potential threats to water quality associated with the proposed project are minimal because it would not involve non-stormwater discharges to the storm drain system during operation and maintenance activities. Well purging and LPGAC vessel backwashing water would be directed to the City's sanitary sewer system, as discussed in Section 3.18, Utilities and Service Systems. Potential water quality impacts associated with altered land cover and imperviousness of the site are addressed in Sections 3.9(c) and 3.9(d).

Stormwater runoff from the project sites during construction and operation of the proposed project could contribute limited amounts of pollutants to receiving waters, such as sediment, litter, and/or fuels and greases. Construction-related land disturbance, such as grading, excavation, trenching, and temporary soil stockpiling associated with installation of treatment facilities, the remediation well collector line, and sewer laterals would result in temporary disturbance of soils. Sediment from erosion of graded or excavated surface materials; leaks or spills from equipment; or inadvertent releases of construction materials could result in water quality degradation if runoff containing the sediment entered receiving waters in sufficient quantities to exceed water quality objectives. Impacts from construction-related activities would generally be of short-term duration.

Non-stormwater discharges during construction, such as dewatering of excavations and trenches, are not anticipated due to the shallow nature of the excavations in comparison to the depth of groundwater in the area, which is approximately 150 feet (ULARA 2016).

Because implementation of the proposed project would collectively require construction activities resulting in land disturbance of more than 1 acre, LADWP would be required to obtain coverage under the Construction

General Permit (SWRCB Order 2009-0009-DWQ, as amended), which pertains to pollution from grading and project construction. Coverage under the Construction General Permit requires a qualified individual (as defined by the SWRCB) to prepare a SWPPP to address the potential for construction-related activities to contribute to pollutants within the proposed project's receiving waterways. The SWPPP must describe the type, location, and function of structural measures to alleviate stormwater impacts and must demonstrate that the combination of measures selected are adequate to meet the discharge prohibitions, effluent standards, and receiving water limitations contained in the Construction General Permit. Measures developed as part of the SWPPP include but are not limited to minimizing the extent of disturbed areas and duration of exposure, stabilizing and protecting disturbed areas, keeping runoff velocities low, and retaining sediment within the construction area. These measures would be achieved in part by use, as appropriate, of temporary desilting basins, silt fences, gravel bag barriers, temporary soil stabilization, temporary drainage inlet protection, and/or diversion dikes and interceptor swales.

These water quality plans would prevent construction-related contaminants from reaching impaired surface waters and contributing to impacts on water quality in the region's receiving waters.

The transport, use, and disposal of hazardous materials required for operation and maintenance of the proposed project are described in Section 3.8, including handling of hydrogen peroxide. The hydrogen peroxide storage facility would include a truck off-loading area where the hydrogen peroxide would be transferred to the tanks. The tanks and the truck off-loading area would be protected by a spill and leak containment system with sump pumps and emergency shut-off for the transfer pumps. The tanks would be protected with temperature sensors, level sensors, and leak sensors with an emergency shut-off and alarms. The hydrogen peroxide injection vault would include leak and flood sensors and alarms as well as analyzers to measure the hydrogen peroxide concentration of the water exiting the vault. The facilities and procedures that address hazards and hazardous materials described in Section 3.8 would effectively avoid or substantially minimize the potential for such materials to be released into stormwater runoff.

Required compliance with the Construction General Permit, including preparation and implementation of a SWPPP, as well as installation of spill and leak detection/containment systems, would ensure that surface water quality impacts resulting from construction and operation of the proposed project would be less than significant.

Groundwater Quality

The proposed project would not contribute additional pollutant sources to the groundwater basin. Instead, it would remove and contain COCs from the basin by physical extraction, which would limit the spread of COC plumes and threat to other parts of the groundwater basin.

Pumping from the RT Well Field under the proposed project would affect the distribution and extent of these contaminants in the vicinity of the well field, due to the pumping radius of influence. The direction and rate of migration for the COCs in the groundwater could be locally altered in response to pumping, thereby affecting measured concentrations over time. The movement of contaminants in groundwater does have the potential to result in significant impacts associated with the movement of contaminants within the capture zone. However, it is a purpose of the project to intercept the contaminant plume. Without the proposed interim remedial plan, the COCs would continue to migrate downgradient of the well field and to other wells within the well field, potentially contaminating additional areas of the groundwater basin. Therefore, with regard to the water quality in the groundwater basin, the proposed project would overall have a beneficial impact; however, in order to address potential impacts associated with the movement of contaminants, mitigation measure MM-HYD-1 is incorporated into the proposed project.

> ***MM-HYD-1: Groundwater Monitoring Program***
> Prior to initiating pumping operations of the remediation wells, the Los Angeles Department of Water and Power shall develop and implement a groundwater monitoring program to monitor the plumes associated with the contaminants of concern. The groundwater monitoring program shall identify sampling locations and frequencies for contaminant plume monitoring to establish that the contaminant mass targeted for remediation is being adequately captured, to be submitted to the Technical Advisory Committee (TAC) for its consideration, in accordance with the LADWP Proposition 1 Memorandum of Understanding which established the TAC. The monitoring data shall be uploaded to the California Water Board's "GeoTracker" Groundwater Information System for use by interested stakeholders. The groundwater monitoring program shall contain evaluation factors to determine whether additional and/or different sampling locations and frequencies should be incorporated for contaminant plume monitoring.

With incorporation of MM-HYD-1 outlined above into the proposed project, potentially significant impacts would be reduced to a less than significant level.

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 (i.e., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?

Less-Than-Significant Impact with Mitigation Incorporated. During project construction, minor amounts of water would be required for various uses, such as dust control. The water used for these purposes would be from treated water supplies or approved reclaimed water supplies. However, because of the relatively small quantity of water required in the context of available supply, no depletion of groundwater or other supplies would occur from project construction.

Groundwater extraction from the SFB is limited by court-defined rights recorded in the *Judgment of the California Superior Court in Case No. 650079, The City of Los Angeles v. The City of San Fernando, et al.,* dated January 26, 1979. The SFB is an adjudicated basin and is administered by the Upper Los Angeles River Area

Watermaster. LADWP is therefore limited in the overall amount of groundwater that it can pump from the SFB. The City's entitlement averages 87,000 acre-feet per year, consistent with maintaining a safe yield in the basin as defined by the Watermaster. Extracted water is "charged" to the City's pumping entitlement, as stipulated in the 1979 judgment. LADWP is also allowed to accumulate credit for stored groundwater from in-lieu pumping or imported spread water. As such, groundwater extraction from the RT Well Field would continue to be limited by LADWP's adjudicated water rights.

Furthermore, this project is not anticipated to have a material effect, either alone or in conjunction with other actions on groundwater elevations over time. It is noted that groundwater elevations in the basin have historically fluctuated by more than 150 feet due to long-term precipitation patterns and other factors (ULARA Watermaster 2016). In the area around the RT Well Field, trends in water levels from 1968 to 2015, as presented by the ULARA Watermaster (2016), show that groundwater levels have fluctuated significantly over time and that the recent water levels are similar to those shortly after the turn of the century. Since then water levels have both increased and decreased by over 100 feet. Other long-term hydrographs presented by the ULARA Watermaster (2016) provide further evidence that groundwater elevations change throughout the SFB with regularity and changes of tens of feet can occur in the same year.

In addition, prior modeling studies simulated the future regional groundwater elevation patterns, including the study carried out by AMEC Foster Wheeler Environment & Infrastructure Inc. (2015) as part of the North Hollywood Operable Unit (NHOU) Second Interim Remedy (2IR) Groundwater Remediation System Design. This modeling study was carried out prior to this project and forecasts similar patterns of future groundwater flow and long-term trends in groundwater elevations relative to those forecast to exist when this project is implemented. For example, the 2015 modeling simulated water elevations in the vicinity of the southern RT production wells of approximately 410 to 420 feet in 2045, which is consistent with simulation results as part of this project for the same location. Likewise, in the vicinity of the NHOU 2IR, southeast of the RT Well Field, both the 2015 modeling and current modeling simulations forecast groundwater elevations of approximately 410 to 420 feet. To the west of the southern RT production wells, both modeling studies forecast groundwater elevation in the vicinity of the former Hewitt Pit Landfill of approximately 410 to 418 feet. Nonetheless, the movement of contaminants in groundwater does have the potential to result in significant impacts associated with the movement of contaminants within the capture zone. However, it is a purpose of the project to intercept the contaminant plume. Without the proposed interim remedial plan, the COCs would continue to migrate downgradient of the well field and to other wells within the well field, potentially contaminating additional areas of the groundwater basin. Therefore, with regard to the water quality in the groundwater basin, the proposed project would overall have a beneficial impact; however, in order to address potential impacts associated with the movement of contaminants, mitigation measure MM-HYD-1, as discussed above, is incorporated into the proposed project.

As such, LADWP's capability to operate the RT Well Field consistent with existing water rights would remove groundwater from storage, but in a manner consistent with the City's entitlement and in a manner that would not compromise the safe yield of the basin and would not compromise response actions being conducted by others in the basin. Additionally, with incorporation of MM-HYD-1 outlined above into the proposed project, potentially significant impacts would be reduced to a less than significant level.

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 which would result in substantial erosion or siltation on- or off-site?***

Less-Than-Significant Impact. No streams, rivers, wetlands, or other water bodies are located on, or within the vicinity of, the proposed project site. As such, the proposed project would not result in the alteration of the course or a stream or river. However, construction of the proposed project would result in ground surface disturbance during grading, excavation, and temporary stockpiling of soil that could create the potential for erosion to occur. As indicated in Section 3.6(b), because the proposed project would involve construction on an area greater than 1 acre (including the NHPS construction area, remediation well collector line, and sewer laterals), it would require compliance with the General Construction Activity NPDES Permit (Order No. 2009-0009-DWQ, as amended by Order No. 2010-0014-DWQ, NPDES No. CAS000002), which requires preparation of and compliance with a SWPPP. The SWPPP must include erosion control measures such as covering exposed soil stockpiles, protecting the perimeter of the construction site with sediment barriers, and protecting storm drain inlets.

During operation, site conditions would be generally similar to existing conditions, with the exception of the proposed project facilities. Any long-term changes in drainage patterns that would occur as a result of the proposed project would be limited to minor, highly localized changes, mostly associated with the presence of additional structures and additional impervious surfaces on the site. The increase in impervious surfaces due to treatment facilities could cause a minor increase in peak flow rate and runoff volumes from the site. However, the proposed project site would maintain the general drainage pattern as it currently exists. Furthermore, the proposed project would comply with the City of Los Angeles Low Impact Development Ordinance, which requires management of stormwater on site, including measures to capture and infiltrate stormwater into pervious surfaces. Due to the developed nature of the project site, the relatively small size of the proposed project site, and required compliance with existing regulations, any minor alterations to the existing drainage pattern of the proposed project site would result in a less-than-significant impact relative to erosion or siltation on or off the proposed project site.

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 which would result in flooding on- or off-site?***

Less-Than-Significant Impact. As described in Section 3.9(c), no streams, rivers, wetlands, or other water bodies are located on, or within the vicinity of, the proposed project site. The project would not result in the alteration of the course of a stream or river. During construction, the proposed project would temporarily alter the drainage pattern of the site due to excavation, grading, and temporary stockpiling of soil. However, these temporary alterations would be minimal and would not be expected to create flooding. Additionally, compliance with the project-specific SWPPP that would be required per the Construction General Permit, specifically the use of run-off control devices, would ensure that flooding on or off site would be minimized during construction.

The proposed project involves the addition of new facilities on the project site. The addition of these facilities would not substantially change the drainage patterns of the site, which is currently predominantly paved. Currently, the only unpaved portions of the NHPS block include the northwest corner, which is a vacant lot, and the yard areas of the residences in the northern section of the block. The increase in impervious surfaces due to the facilities could cause a minor increase in peak flow rate and runoff volumes from the site. However, this increase would be minimized through required compliance with the City of Los Angeles Low Impact Development Ordinance, which requires management of stormwater on site, including measures to capture and infiltrate stormwater into pervious surfaces. Any minor alteration to the existing drainage pattern of the proposed project site would result in less-than-significant impacts relative to flooding on or off site.

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 polluted runoff?

Less-Than-Significant Impact. During construction of the proposed project, drainage patterns and runoff quantities on the project site may be temporarily altered, which could potentially cause increased runoff or runoff that contains sediment, petroleum products, or other potential water pollutants used during construction. The potential impacts of polluted runoff, including stormwater runoff, non-stormwater discharges, and the transport/use of hazardous materials, are addressed in the preceding discussions in this section.

As discussed for Section 3.9(d), the addition of the proposed project facilities would not substantially change the drainage patterns of the site, which is currently predominantly paved. The increase in impervious surfaces due to treatment facilities could cause a minor increase in peak flow rate and runoff volumes from the site. However, this increase in impervious area in comparison to the enormous size of the urban area served by the City's storm drain system would result in a negligible (i.e., non-measurable) effect on the capacity of the storm drain system. Nevertheless, required compliance with the City of Los Angeles Low Impact Development Ordinance would reduce the potential for increase runoff to occur. This ordinance requires management of stormwater on site, including measures to capture and infiltrate stormwater into pervious surfaces. As a result, impacts would be less than significant.

f) Would the project otherwise substantially degrade water quality?

No Impact. The proposed project involves the installation of equipment to address releases of COCs in groundwater on a site that is currently used for groundwater pumping, water treatment, and water distribution purposes. The proposed project would diminish COCs from the pumped SFB groundwater accessed by the RT

Well Field, consistent with applicable regulations and requirements and in a manner that protects public health and the environment; a beneficial impact.

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?

No Impact. The entire project site, including the RT Well Field, remediation well collector line, and NHPS block, is located in an area designated by the Federal Emergency Management Agency (FEMA) as Zone X, an area of minimal flood hazard (FEMA 2018). Additionally, the proposed project does not include the development of housing. Therefore, no impact would occur.

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

No Impact. The entire project site, including the RT Well Field, remediation well collector line, and NHPS block, is located in an area designated by the Federal Emergency Management Agency (FEMA) as Zone X, an area of minimal flood hazard (FEMA 2018). Therefore, the project would not place structures within a 100-year flood hazard area, and no impacts would occur.

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?

Less-Than-Significant Impact. As discussed in Sections 3.9(g) and 3.9(h), the proposed project site is not located within a 100-year flood zone. However, the project site is located within a potential inundation area, as mapped in the City of Los Angeles General Plan, Safety Element (City of Los Angeles 1996). This mapped inundation area covers approximately half of the San Fernando Valley and is primarily associated with the Hansen and Sepulveda Dams, both of which are flood control dams that only withhold/contain substantial amounts of water during flood events. These maps are based on the assumption of an immediate and total catastrophic failure of a dam and do not consider the effects of dam safety regulations, such as continual monitoring/inspections, or show the actual probability of failure. These maps are prepared as worst-case scenarios for emergency planning purposes and the actual likelihood of a dam breach is low, given the Department of Water Resources Division of Safety and Dams requires annual monitoring/inspections and corrective actions if any dam is shown to have vulnerabilities, either structural or earthquake related. Dams and reservoirs are also monitored during storms.

Since the proposed project consists of installing water remediation equipment, the project would not expose people or habitable structures to significant safety risks by virtue of being in a dam inundation zone. Therefore, impacts would be less than significant.

j) Inundation by seiche, tsunami, or mudflow?

No Impact. The proposed project site is not located within a hillside area or a tsunami inundation area (City of Los Angeles 1996). Therefore, the proposed project would not be subject to inundation by tsunami or mudflow. As discussed in Section 3.9(i), the project site is located within an inundation area associated with flood control dams in the San Fernando Valley. However, the project site is not located in proximity to these reservoirs. Seiches only impact areas in proximity to the water bodies as a result of seismically induced waves. The NHPS is located approximately 4.5 miles south (downstream) of the Hansen Dam, which is a flood control dam that only withholds water during flood events, and approximately 5 miles northeast of the Sepulveda Dam, which is not located upstream of the project site. As a result, no impacts would occur.

References

AMEC (AMEC Foster Wheeler Environment & Infrastructure Inc.). 2015. Groundwater Modeling Memorandum, North Hollywood Operable Unit, Second Interim Remedy, Groundwater Remediation System Design. Project Number: 8615180350. July 2015.

California Water Boards. 2018. "Laws and Regulations". Accessed March 31, 2018. https://www.waterboards.ca.gov/laws_regulations/.

City of Los Angeles. 1996. Safety Element of the Los Angeles City General Plan. Accessed April 3, 2018. https://planning.lacity.org/cwd/gnlpln/saftyelt.pdf.j

FEMA (Federal Emergency Management Agency). 2018. "Flood Map 06037C1310F", effective 9/26/2008. Accessed April 3, 2018. https://msc.fema.gov/portal/search#searchresultsanchor.

SWRCB (State Water Resources Control Board). 2017. "Impaired Water Bodies, 2012 Integrated Report Approval Documents". Accessed March 31, 2018. https://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2012.shtml.

ULARA (Upper Los Angeles River Area) Watermaster. 2016. *Annual Report, Watermaster Service in the Upper Los Angeles River Area (ULARA), Los Angeles County, California*. Accessed March 31, 2018. http://ularawatermaster.com/public_resources/WY2014-15-ULARA-WM-Rpt-12-2016.pdf.

3.10 Land Use and Planning

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
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?	☐	☐	☐	☒

a) Would the project physically divide an established community?

Less-Than-Significant Impact. The proposed project would involve installation of water treatment facilities and pipelines at the following locations: NHPS, proposed pipeline alignments extending along an LADWP power line corridor and roadway rights-of-way, and the proposed remediation wells within the RT Well Field. The installation of these facilities and pipelines would not substantially alter land uses or introduce an aboveground linear feature that would have the potential to divide a community.

Under existing conditions, the NHPS property currently supports the treatment and distribution of water and is also used by LADWP for parking and temporary storage. Under existing conditions, the NHPS property is surrounded by fencing and is not accessible to the community at large. The addition of water treatment infrastructure to this property, which is already used for water treatment and distribution purposes, would not physically divide an established community. Rather, the proposed improvements would add new water treatment infrastructure to a site that already contains water treatment facilities.

As part of the proposed project, the NHPS property would be expanded to include the two residential parcels located at the southwest corner of Dehougne Street and Morella Avenue. These parcels would be acquired by LADWP and converted from residential to public facilities uses. This change would be consistent with the public facilities land use of the majority of the NHPS block. The residential use of the parcels in the northern section of the NHPS block is inconsistent with the public facilities land uses within the southern section of the block. Acquiring the parcels in the northeast corner and converting them to public facilities use would, in fact, bring those parcels into consistency with the adjacent parcels. Converting two residential properties that are contiguous with public facilities properties to a consistent use would not have the potential to physically divide an established community.

The proposed pipeline alignments are located within an existing LADWP power line corridor and within existing roadways. The power line corridor is primarily used for power transmission purposes but also supports the RT well field, commercial nursery operations, and paved vehicle storage lots. Construction of new pipelines within this corridor may create temporary interruptions in the commercial nursery and vehicle storage activities. Operation of the nurseries and vehicle storage areas could commence once construction is complete. Temporary interruptions in the existing incidental activities within this corridor (i.e., nursery operations and vehicle storage) would not create physical divisions in an established community. With or without the proposed project, the existing power line corridor would remain a linear feature extending through Sun Valley and North Hollywood.

During construction, portions of affected roadways would be closed for pipeline installation, and some construction work and staging activities may also occur along adjacent sidewalks, at some adjacent properties, and within the power line corridor. Construction activities may create a temporary nuisance to residents and employees in the community surrounding the pipeline alignments. However, two-way traffic would be maintained along the affected roadways to the extent feasible, but along more narrow roadways, access would be temporarily limited and/or unavailable. Once the temporary construction period is complete, the proposed pipelines would not restrict access or create a division, since the pipelines would operate underground. For these reasons, impacts associated with pipeline construction within roadways would be less than significant.

Improvements to the remediation wells would take place at or near the existing wells and would consist of installing purge water storage tanks, replacing the well head pumps, and installing new well controls. These activities would take place within the existing LADWP high-voltage power line corridor. For these reasons, the proposed remediation well component of the project would not have the potential to physically divide an established community.

In summary, although construction activities may create a temporary nuisance to residents and employees in the community surrounding the pipeline alignments, the project components would not have the potential to permanently and physically divide an established community. For this reason, impacts would be less than significant.

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?

Less-Than-Significant Impact. The proposed project would involve installation of water treatment facilities and pipelines at the following locations: the NHPS; proposed pipeline alignments extending along an LADWP power line corridor and roadway rights-of-way; and the proposed remediation wells within the RT Well Field.

The NHPS is designated for public facilities and residential uses. The parcels fronting Vanowen Street, where the hydroelectric generators are located, are zoned R3-1 (Multiple Dwelling Zone) and have a land use designation of Public Facilities. The two parcels located at the southeast corner of Hinds Avenue and Dehougne Street are zoned RD1.5-1 (Restricted Density Multiple Dwelling Zone) and have a land use designation of Low Medium II Residential; one of these parcels is vacant, and the other contains unoccupied residential structures. The balance of the NHPS property, located between Hinds and Morella Avenues, where the existing water treatment and distribution facilities are located, is zoned PF-1XL (Public Facilities) and has a land use designation of Public Facilities. The two residential parcels located at the southwest corner of Dehougne Street and Morella Avenue would be acquired by LADWP as part of this project and would become part of the NHPS property. These parcels are zoned RD1.5-1 and have a land use designation of Low Medium II Residential. As part of the project, the parcels in the northern section of the NHPS block would be converted from residential to public facilities uses. Public facilities are not typically allowed within residential zoning and land use designations; however, this change would be consistent with the land use of the majority of the block on which the NHPS is located. The residential parcels in the northern section of the NHPS block are outliers relative to the rest of this block. Acquiring these parcels and converting them to public facilities use would not, therefore, be physically inconsistent with adjacent land use patterns and would, in fact, bring those parcels into consistency with the immediately adjacent parcels to the south. The proposed facilities that would be installed within the NHPS block would be consistent with the land use regulations that apply to the NHPS block, including applicable height restrictions. (PF-1VL, RD1.5-1, and R3-1 have height restrictions of 45 feet.) The facilities that would be installed at NHPS would not exceed this restriction and would be a maximum of about 20 feet in height. As demonstrated throughout this Initial Study/MND, development of public facilities on the residential parcels within the NHPS block would not cause significant, unavoidable impacts on the environment. As such, inconsistency with the land use and zoning designations in the northern portion of the NHPS block would not create a significant impact on the environment.

The proposed pipeline alignments are located within an existing LADWP power line corridor and within existing roadways. The power line corridor is zoned as PF-1VL (Public Facilities) and is owned by LADWP. PF-1VL has a height restriction of 45 feet. The pipelines would be installed below grade and, therefore, would not exceed this height restriction. Installation of pipelines within the power line corridor would be consistent with the existing public facilities designation for the corridor and would also be consistent with the primary existing land use of this corridor (i.e., electrical transmission), which is a public facilities use.

Portions of the proposed pipeline alignments would extend along the rights-of-way of several roadways: Morella Avenue, Hart Street, Saticoy Street, and Valerio Street. Use of roadway rights-of-way for pipelines is a standard practice and would not conflict with the use of the these roadways once installation is complete. For these reasons, the new pipelines would be consistent with existing uses and land use designations of the proposed alignments.

Improvements to the remediation wells would take place at or near the existing wells and would consist of installing purge water storage tanks, replacing the well head pumps, and installing new well controls. These activities would take place within the existing LADWP high-voltage power line corridor and would be consistent with the existing use of this corridor for RT Well Field operations and with the existing public facilities designation of the corridor.

In summary, the proposed project would not result in conflicts with land use plans, policies, or regulations that have been adopted for the purpose of avoiding or mitigating an environmental effect. Furthermore, the proposed project is consistent with and would help implement plans that have been adopted to address regional environmental effects, such as the 2015 City of Los Angeles Urban Water Management Plan (see Section 1.3), the 2016 AQMP (see Section 3.3), the City of Los Angeles's Green LA Plan, the Sustainable City pLAn, and the LADWP 2016 IRP (see Section 3.7). For these reasons, impacts of the proposed project related to land use plans and policies would be less than significant.

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

No Impact. The proposed project would not conflict with any habitat conservation plan. The site is not within a habitat conservation plan or a natural community conservation area (CDFW 2017; City of Los Angeles 1996, 1999). No impact would occur.

References

CDFW (California Department of Fish and Wildlife). 2017. *California Regional Conservation Plans* [map]. October 2017. Accessed March 8, 2018. https://www.wildlife.ca.gov/Conservation/Planning/NCCP.

City of Los Angeles. 1996. *North Hollywood–Valley Village Community Plan*. Updated May 14, 1996. Accessed March 8, 2018. https://planning.lacity.org/complan/valley/nhlpage.htm.

City of Los Angeles. 1999. *Sun Valley–La Tuna Canyon Community Plan*. Adopted August 13, 1999. Accessed March 8, 2018. https://planning.lacity.org/complan/valley/svypage.htm.

3.11 Mineral Resources

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
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?	☐	☐	☐	☒

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?

No Impact. The Division of Mines and Geology (renamed the California Geological Survey in 2006) has mapped portions of the City within Mineral Resource Zone 2 for aggregate resources. Mineral Resource Zone 2 is defined as "areas where adequate information indicates that significant mineral deposits are present or where it is judged that a high likelihood of their presence exists." The proposed project site is located within Mineral Resource Zone 2 and is therefore in an area with known mineral resources identified by the state (California Division of Mines and Geology 1979). However, no active mine operations are currently present nor have they been present in the past on the project site. The project site and area supports a variety of uses that would be incompatible with mineral extraction, including groundwater pumping, water treatment, water distribution, electrical transmission, and commercial nursery operations. The project site is located in an urbanized area and is surrounded by a variety of residential neighborhoods and businesses. The existing and surrounding land uses would generally preclude the project site from being used for mineral extraction purposes. Furthermore, the addition of water treatment infrastructure to areas that are already used for public facilities purposes would not result in a loss of availability of a known regionally important mineral resource. No impact would occur.

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 City of Los Angeles has identified the proposed project site as being within an area containing significant mineral deposits (City of Los Angeles 1996). However, as discussed in Section 3.11(a), the project site is used for groundwater pumping, water treatment, water distribution, electrical transmission, and commercial nursery operations and is surrounded by urban development, including residential neighborhoods. The existing land uses at the project site and in the project site would generally preclude establishment of mineral extraction activities at the site. Furthermore, the addition of water treatment infrastructure to areas that are already used for public facilities purposes would not result in a loss of availability of a known locally important mineral resource recovery site. No impact would occur.

References

California Division of Mines and Geology. 1979. *Mineral Land Classification Map – Aggregate Resources Only*. Van Nuys Quadrangle. May 25, 1979. Accessed March 12, 2018. http://www.quake.ca.gov/gmaps/WH/smaramaps.htm.

City of Los Angeles. 1996. Figure GS-1 in *Los Angeles Citywide General Plan Framework EIR*. Prepared by Envicom Corporation. June 1996. Accessed March 12, 2018. http://cityplanning.lacity.org/housinginitiatives/housingelement/frameworkeir/FrameworkFEIR.pdf.

3.12 Noise

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
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?	☐	☐	☐	☒

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 with Mitigation Incorporated. The City of Los Angeles regulates noise through several sections of its municipal code. These include Section 41.40 (Noise Due to Construction, Excavation Work – When Prohibited), which establishes time prohibitions on noise generated by construction activity; Section 112.04 (Powered Equipment Intended for Repetitive Use in Residential Areas and Other Machinery, Equipment and Devices), which prohibits the use of loud machinery and/or equipment within 500 feet of residences and prohibits noise from machinery, equipment, or other devices that would result in an increase of more than 5 decibels (dB) above the ambient noise level at residences; and Section 112.05 (Maximum Noise Level of Powered Equipment or Powered Hand Tools), which establishes maximum noise levels for powered equipment and powered hand tools (i.e., 75 A-weighted decibels [dBA] at a distance of 50 feet for construction, industrial, and agricultural equipment between the hours of 7:00 a.m. and 10:00 p.m.). According to Section 41.40, no construction activity that might create loud noises in or near residential areas or buildings shall be conducted between the hours of 9:00 p.m. and 7:00 a.m. on weekdays, before 8:00 a.m. or after 6:00 p.m. on Saturday and national holidays, or at any time on Sunday.

Existing Noise Levels

Currently, the project site generates noise associated with the existing NHPS operations and maintenance vehicles entering and exiting the site. Additionally, the project site and surrounding area are subject to traffic noise associated with adjacent roadways, including Morella Avenue, Dehougne Street, Hinds Avenue and Vanowen Street, and Lankershim Boulevard, as well as aircraft overflight noise.

Noise measurements were conducted on and near the project site on March 5 and 6, 2018, to characterize the existing noise environment. The noise measurements were made using a Piccolo Integrating Sound Level Meter equipped with a 0.5-inch, pre-polarized condenser microphone with pre-amplifier. The sound level meter meets the current American National Standards Institute (ANSI) standard for a Type 2 (General Use) sound level meter. The calibration of the sound level meter was verified before and after the measurements, and the measurements were conducted with the microphone positioned approximately 5 feet above the ground.

Four short-term noise measurements (ST1 through ST4) were conducted, each 15 minutes in duration. These noise measurement locations represent key potential sensitive receptors or sensitive land uses adjacent to the NHPS block, pipeline alignments, and remediation wells. In addition, a long-term (24 hours in duration) noise measurement (LT1) was conducted to characterize the variation in ambient noise levels throughout the day and nighttime hours in the project vicinity. The noise measurement locations are shown on Figure 3.12-1; the average noise levels at the four ST measurement locations are provided in Table 3.12-1, and the average noise levels at LT1 are summarized in Table 3.12-2. As shown in Table 3.12-1, existing energy-averaged noise levels (L_{eq}) range from 58 to 69 dBA at locations adjacent to the project site. Average noise levels throughout a 24-

hour period, shown in Table 3.12-2, ranged from approximately 59 dBA L_{eq} (during the 1:00 a.m. hour) to approximately 73 dBA L_{eq} (during the 5:00 p.m. hour). The primary noise sources consisted of traffic along the adjacent roads and aircraft overflights associated with Hollywood Burbank Airport.

Table 3.12-1. Short-Term (ST) Noise Measurement Summary

Receptors	Location/Address	Date	Time	L_{eq} (dBA)	L_{max} (dBA)
ST1	6902 Hinds Ave. on Dehougne St. North Hollywood, CA 91606	March 5, 2018	11:38 a.m.–11:53 a.m.	59.5	75.6
ST2	6850 Morella Ave. (Multi-Family) North Hollywood, CA 91606	March 5, 2018	11:57 a.m.–12:12 p.m.	65.3	82
ST3	11751 Hart St. (Multi-Family) North Hollywood, CA 91606	March 5, 2018	12:17 p.m.–12:32 p.m.	69.1	88.6
ST4	7512 Vantage Dr. (Single-Family) North Hollywood, CA 91606	March 5, 2018	12:50 p.m.–1:05 p.m.	58.1	78.4

Source: Appendix C.

Notes: L_{eq} = equivalent continuous sound level (time-averaged sound level); L_{max} = maximum sound level during the measurement interval

Table 3.12-2. Long-Term (LT1) Noise Measurement Summary

Time	L_{eq} (dBA)	L_{max} (dBA)
11:18 a.m.	66.9	89.1
12:18 p.m.	67.0	83.9
1:18 p.m.	68.3	86.9
2:18 p.m.	70.9	83.4
3:18 p.m.	71.5	84.5
4:18 p.m.	69.9	85.0
5:18 p.m.	73.3	86.3
6:18 p.m.	72.2	96.9
7:18 p.m.	67.1	86.6
8:18 p.m.	67.5	86.7
9:18 p.m.	69.3	87.0
10:18 p.m.	60.2	82.6
11:18 p.m.	61.9	87.6
12:18 a.m.	60.0	83.5
1:18 a.m.	59.4	77.3
2:18 a.m.	60.3	76.9
3:18 a.m.	60.8	76.8
4:18 a.m.	63.8	77.8
5:18 a.m.	68.0	77.2
6:18 a.m.	70.4	78.8
7:18 a.m.	70.8	86.6

Table 3.12-2. Long-Term (LT1) Noise Measurement Summary

Time	L_{eq} (dBA)	L_{max} (dBA)
8:18 a.m.	66.3	81.7
9:18 a.m.	66.1	80.9
10:18 a.m.	66.3	82.3

Source: Appendix C.
Notes: L_{eq} = equivalent continuous sound level (time-averaged sound level); L_{max} = maximum sound level during the measurement interval

SOURCE: Bing Maps 2018; Los Angeles County 2011

LA DWP Los Angeles Department of Water & Power

FIGURE 3.12-1

Noise Measurement Locations

Proposed North Hollywood Central Groundwater Treatment Action

INTENTIONALLY LEFT BLANK

Short-Term Construction Noise

Total construction is anticipated to take approximately 30 months to complete, beginning in early 2019. During construction of the proposed project, activities would include site preparation, piping, conduit, and concrete installation; equipment delivery and installation; and erection of structures. Construction activities would require the use of standard construction equipment such as loaders, dozers, dump trucks, soil compaction equipment, concrete pumps, and cranes. The anticipated number of workers would range from approximately 12 or fewer (at the remediation wells) to a maximum of approximately 40 (at the NHPS block during peak construction periods). Construction equipment with substantially higher noise-generation characteristics (such as pile drivers, rock drills, blasting equipment) would not be necessary for construction of the proposed project.

The range of maximum noise levels for various types of construction equipment at a distance of 50 feet is depicted in Table 3.12-3. The noise values represent maximum noise generation, or full-power operation of the equipment. Simultaneous operation of more than one piece of equipment would increase the sound level of the equipment operating individually. As an example, a loader and two dozers, all operating at full power and relatively close together, would generate a maximum sound level of approximately 90 dBA at 50 feet from their operating locations. As one increases the distance between equipment, and/or the separation of areas with simultaneous construction activity, dispersion and distance attenuation reduce the effects of separate noise sources added together. In addition, typical operating cycles may involve 2 minutes of full-power operation, followed by 3 or 4 minutes at lower levels. The average noise level during construction activity is generally lower, since maximum noise generation may only occur up to 50% of the time.

Table 3.12-3. Construction Equipment Maximum Noise Emission Levels

Equipment	Typical Sound Level (dBA) 50 Feet from Source
Roller	74
Concrete vibrator	76
Pump	76
Saw	76
Backhoe	80
Air compressor	81
Generator	81
Compactor	82
Concrete pump	82
Crane, mobile	83
Concrete mixer	85
Dozer	85
Grader	85
Impact wrench	85
Loader	85

Table 3.12-3. Construction Equipment Maximum Noise Emission Levels

Equipment	Typical Sound Level (dBA) 50 Feet from Source
Pneumatic tool	85
Jackhammer	88
Truck	88
Paver	89

Source: DOT 2006.

Noise in this analysis is usually expressed in terms of equivalent noise level (L_{eq}), which is the average sound level for any specific time period, on an energy basis. For example, the L_{eq} for 1 hour is the energy average noise level during the hour. The average noise level is based on the acoustic energy content of the sound. L_{eq} can be thought of as the level of a continuous noise, which has the same energy content as the fluctuating noise level. L_{eq} is expressed in units of dBA. The L_{eq} would generally be lower than the maximum noise levels expressed in Table 3.12-2.

Average noise levels from conventional construction activities (with a typical number of three to four pieces of equipment operating on the site) range from approximately 75 to 86 dBA L_{eq} at a distance of 50 feet. Due to improvements in construction equipment silencing technology, these sound levels are 3 dB lower than the noise levels reported in the 1971 reference study (USEPA 1971). Noise levels from construction activities generally decrease at a rate of 6 dB per doubling of distance away from the activity.

The nearest off-site sensitive receptors to the project boundaries are the residences to the north, east and west of the NHPS block, and residences adjacent to the pipeline alignments and remediation wells. The nearest residences to the NHPS block are located approximately 65 feet from the nearest planned construction; the nearest residences to the pipeline alignments and remediation wells are located approximately 30 feet away. More typically, construction activities would take place approximately 140 to 150 feet from adjacent residences.[12]

The Federal Highway Administration's (FHWA) Roadway Construction Noise Model (RCNM) (FHWA 2008) was used to estimate construction noise levels at the nearest noise-sensitive land uses. Although the model was funded and promulgated by the FHWA, the RCNM is often used for non-roadway projects because the same types of equipment used for roadway projects are also used for other project types. Input variables for the RCNM consist of the receiver/land use types, the equipment type and number of each (e.g., two graders, a loader, a tractor), the duty cycle for each piece of equipment (e.g., percentage of hours the

---

[12] Because construction activities would take place both near and far relative to any one noise-sensitive receiver, the concept of the "acoustic center" is used for providing typical construction noise levels. The acoustic center is the idealized point from which the energy sum of all activity noise, near and far, would be centered. The acoustic center is derived by taking the square root of the product of the nearest and the farthest construction noise-receiver distances.

equipment typically works per day), and the distance from the noise-sensitive receiver. No topographical or structural shielding was assumed in the modeling. The RCNM has default duty-cycle values for the various pieces of equipment, which were derived from an extensive study of typical demolition activity patterns (FHWA 2008). Those default duty-cycle values were used for this noise analysis.

Using FHWA's RCNM construction noise model and construction information (types and number of construction equipment by phase, as detailed in Table 2-1), the estimated noise levels from construction (summarized in Table 3.12-3) were calculated for both the relatively brief periods of time during which construction would take place at the nearest source-receiver distances and during the longer periods of time when construction would take place both near and far from adjacent receivers. The RCNM inputs and outputs are provided in Appendix C.

As presented in Table 3.12-4, the highest noise levels are predicted to occur at residences adjacent to the remediation wells and the pipeline alignments, when noise levels would be as high as 82 to 83 dBA L_{eq} when construction would take place within approximately 30 feet of residential land uses. More typically, construction activity noise adjacent to the remediation wells and pipeline alignments would range from approximately 71 to 72 dBA L_{eq}. The daytime ambient noise levels for residential locations at these locations as represented by the ST3 and ST4 measurements (see Table 3.12-1), range from approximately 58 to 69 dBA L_{eq}.

Table 3.12-4. Construction Noise Model Results Summary

Construction Phase	Construction Noise at Nearby Receivers (L_{eq} [dBA])	
	Nearest Construction Work	*Typical Construction Work Distances*
Demolition, clear and grub	78	73
Excavate for structure	79	75
Excavate for piping	77	75
Excavate and install conduit	75	72
Construction of structure and miscellaneous	71	66
Concrete reinforcement and placement	74	72
Excavate and install piping (remediation wells)	83	71
Excavate and install piping (pipeline alignments)	82	72

Source: Appendix C.

At residences adjacent to the NHPS block, construction noise is estimated to range from approximately 71 to 79 dBA L_{eq} when construction would take place within approximately 65 feet of residential land uses. More typically, construction activity noise adjacent to the NHPS block would range from approximately 66 to 75 dBA L_{eq}. The daytime ambient noise levels for residential locations at these locations as represented by the ST1 and ST2 measurements (see Table 3.12-1) range from approximately 60 to 65 dBA L_{eq}.

Although nearby off-site residences would be exposed to elevated construction noise levels, the exposure would be short term and would cease upon completion of project construction. It is anticipated that construction activities associated with the proposed project would take place within the allowable hours per Section 41.40 of the City of Los Angeles Municipal Code (7:00 a.m. and 9:00 p.m. Monday through Friday, 8:00 a.m. and 6:00 p.m. on Saturday, and not at any time on Sunday or on national holidays) and, thus, would not violate City of Los Angeles standards for construction. However, construction noise levels would be substantially higher than existing ambient daytime noise levels, particularly when construction activities take place in proximity to the nearest adjacent noise-sensitive receivers (as shown in Table 3.12-4). Therefore, noise impacts from construction would be considered potentially significant, and mitigation is incorporated into the proposed project. MM-NOI-1 and MM-NOI-2 are outlined below:

MM-NOI-1: Noise Reduction Techniques

1. Construction activities shall not occur between the hours of 9:00 p.m. and 7:00 a.m. Monday through Friday, 6:00 p.m. and 8:00 a.m. on Saturday, or on Sundays or national holidays.
2. Pumps and associated equipment (e.g., portable generators) shall be shielded from sensitive uses using local temporary noise barriers or enclosures, or shall otherwise be designed or configured so as to minimize noise at nearby noise-sensitive receivers.
3. Staging of construction equipment shall not occur within 20 feet of any noise- or vibration-sensitive land uses.
4. All noise-producing equipment and vehicles using internal combustion engines shall be equipped with mufflers; air-inlet silencers where appropriate; and any other shrouds, shields, or other noise-reducing features in good operating condition that meet or exceed original factory specification. Mobile or fixed "package" equipment (e.g., arc-welders, air compressors) shall be equipped with shrouds and noise control features that are readily available for that type of equipment.
5. All mobile or fixed noise-producing equipment used on the project facilities that are regulated for noise output by a local, state, or federal agency shall comply with such regulation while in the course of project activity.
6. Idling equipment shall be kept to a minimum and moved as far as practicable from noise-sensitive land uses.
7. Electrically powered equipment shall be used instead of pneumatic or internal combustion powered equipment, where feasible.
8. Material stockpiles and mobile equipment staging, parking, and maintenance areas shall be located as far as practicable from noise-sensitive receptors.
9. The use of noise-producing signals, including horns, whistles, alarms, and bells, shall be for safety warning purposes only.

MM-NOI-2: Notification at Sensitive Receptors

Effective communication with local residents shall be maintained during construction, including keeping them informed of the schedule, duration, and progress of the construction to minimize public complaints regarding noise and vibration levels.

Effectiveness of these mitigation measures would vary from several decibels (which in general is a relatively small change) to 10 or more decibels (which subjectively would be perceived as a substantial change), depending on the specific equipment and the original condition of that equipment and the specific locations of the noise sources and the receivers. Installation of a temporary noise barrier, for example, would vary in effectiveness depending on the degree to which the line-of-sight between the source and receiver is broken, and typically ranges from 5 to 10 dB. Installation of more effective silencers could range from several decibels to over 10 decibels. Reduction of idling equipment could reduce overall noise levels from barely any reduction to several decibels. Cumulatively, however, these measures would result in substantial decreases in the noise from construction.

With the incorporation of MM-NOI-1 and MM-NOI-2, as outlined above into the proposed project, construction noise impacts would be reduced to less-than-significant levels.

Long-Term Operational Noise

Noise sources associated with operation of the proposed project would include electric motors associated with the groundwater treatment systems. Some of the proposed equipment would be enclosed (i.e., the UV lamps), thus minimizing noise levels. To obtain representative source noise data, noise measurements were conducted at a water treatment facility (the Orange County Water District's enhanced water treatment facility in Fountain Valley, California), which incorporates hydrogen peroxide quenching and UV treatment, followed by biofiltration. The UV reactors themselves were found to have quite low noise levels; the noise from this equipment was barely audible compared to the noise from the associated decarb units (filtration), which were located adjacent to the UV reactors. The noise from the decarb units (which are similar in operation to the proposed GAC units that would be used for the project) and the UV Reactors was 69 dBA at a distance of 25 feet. At a distance of 135 feet (the approximate distance to the nearest residences from the GAC units' acoustic center), the corresponding noise level from the equipment would be approximately 54 dBA L_{eq}, which would be approximately 4 decibels less than the lowest measured daytime or nighttime ambient noise levels. Based on this comparative analysis, the noise from the proposed remediation equipment would not substantially increase ambient noise levels (i.e., not greater than 5 dBA) and would not result in an exceedance of City of Los Angeles Municipal Code noise standards.

Noise from the new equipment, when considered in conjunction with existing ambient noise sources (i.e., traffic and aircraft overflight noise), would be a minimal addition of noise and, as such, would be less than significant.

Operation of the proposed project would require minimal maintenance activities and minimal to no on-site personnel. Once per month, each hydrogen peroxide storage tank would be refilled. This would involve one round-trip truck trip per tank and would require two personnel. Hydrogen peroxide would be transferred from the truck to the on-site storage tanks. The lamps in the UV reactors would be replaced approximately every 15,000 hours. Assuming that all lamps in the nine main reactors are running continuous and simultaneously, the lamps would be changed about every 20 months. Lamp replacement would involve one roundtrip truck trip and would require two personnel. The carbon medium in the LPGAC vessels would be replaced about once every 3 years. During this replacement process, the carbon medium in one to two vessels would be replaced every week until the change-out of all vessels was completed over a 3- to 6-month period. During the LPGAC replacement process, the LPGAC media would be removed from the vessels by a vacuum truck. This would involve three workers and two to four truck trips per week. The truck and personnel trips during project operation would not create a perceptible increase in ambient noise levels as the number of vehicle trips would be minimal. As such, noise impacts during operations would be less than significant.

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

Less-Than-Significant Impact. Construction activities that might expose persons to excessive ground-borne vibration or ground-borne noise could cause a potentially significant impact. Ground-borne vibration information related to construction activities has been collected by the California Department of Transportation (Caltrans 2013). Information from Caltrans indicates that continuous vibrations with a peak particle velocity of approximately 0.1 inch/second begin to annoy people. The heavier pieces of construction equipment, such as bulldozers, would have peak particle velocities of approximately 0.089 inch/second or less at a distance of 25 feet (DOT 2006). Ground-borne vibration is typically attenuated over short distances. At the distance from the nearest residences to the pipeline alignments and remediation wells activities work (approximately 30 feet), and with the anticipated construction equipment, the peak particle velocity vibration level would be approximately 0.068 inch/second. At the distance from the nearest residences to the NHPS block construction area (approximately 65 feet) and with the anticipated construction equipment, the peak particle velocity would be approximately 0.021 inch/second. These vibration levels would be less than the vibration threshold of potential annoyance of 0.1 inch/second.

The major concern with regards to construction vibration is related to building damage. Construction vibration as a result of the proposed project would not result in structural building damage, which typically occurs at vibration levels of 0.5 inch/second or greater for buildings of reinforced-concrete, steel or timber construction. The heavier pieces of construction equipment used would include typical construction equipment for this type of project such as backhoes, front-end loaders, and flatbed trucks. Pile driving, blasting, or other special construction techniques would not be used for construction of the proposed project; therefore, excessive groundborne vibration and groundborne noise would not be generated. Vibration levels from project construction would be less than the thresholds of annoyance and potential for structural damage. Therefore, potential vibration impacts would be less than significant.

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

Less-Than-Significant Impact. See discussion in Section 3.12(a). The operation of groundwater treatment equipment, along with truck and personnel trips during project operation, would not create an increase of 5 dBA or more in ambient noise levels at sensitive receptor locations. Accordingly, noise impacts during operations would be less than significant.

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 Impact with Mitigation Incorporated. As discussed in Section 3.12(a), the proposed project would result in temporary noise increases during the 30-month construction period. The temporary increases in ambient noise levels would vary depending on the location of the construction activities and the type of equipment being used. The estimated construction noise levels at nearby noise-sensitive land uses are summarized in Table 3.12-4, Construction Noise Model Results Summary. Temporary noise increases at adjacent noise-sensitive land uses from construction activities are considered potentially significant; however, with the incorporation of MM-NOI-1 and MM-NOI-2 into the proposed project, temporary noise impacts from construction activities would be reduced to less-than-significant levels.

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?

Less-Than-Significant Impact. The project site is located approximately 1.2 miles west of the Hollywood Burbank Airport and is not within the Los Angeles County Airport Influence Area. The project site is located outside of the Airport Land Use Plan's 65 dBA community noise equivalent level noise contour (Los Angeles County Airport Land Use Commission 2004), and thus aircraft related noise would not expose people in the project site to excessive noise levels. Furthermore, the proposed project would not include occupied facilities that would expose people to excessive noise levels related to aircraft use. Impacts would be less than significant.

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?

No Impact. The project site is not located within the vicinity of a private airstrip. Accordingly, no impacts would occur related to exposing people residing or working in the project site to excessive noise levels within the vicinity of a private airstrip.

References

California Department of Transportation (Caltrans). September, 2013. Transportation and Construction Vibration Guidance Manual. Division of Environmental Analysis, Environmental Engineering, Hazardous Waste, Air, Noise, Paleontology Office. Sacramento, California.

DOT (U.S. Department of Transportation), Federal Transit Administration, Office of Planning and Environment. May, 2006. FTA-VA-90-1003-06. *Transit Noise and Vibration Impact Assessment*. (Prepared under contract by Harris, Miller, Miller and Hanson). Burlington, Massachusetts.

FHWA (Federal Highway Administration). 2008. *Roadway Construction Noise Model (RCNM), Software Version 1.1*. U.S. Department of Transportation, Research and Innovative Technology Administration, John A. Volpe National Transportation Systems Center, Environmental Measurement and Modeling Division. Washington, D.C.

Los Angeles County Airport Land Use Commission. 2004. *Los Angeles County Airport Land Use Plan*. Accessed May 3, 2016. http://planning.lacounty.gov/assets/upl/data/pd_alup.pdf. Adopted December 19, 1991. Revised December 1, 2004.

USEPA (U.S. Environmental Protection Agency). 1971. *Community Noise*. Accessed June 19, 2018. https://nepis.epa.gov/Exe/ZyNET.exe/2000PKUG.txt?ZyActionD=ZyDocument&Client=EPA&Index=Prior%20to%201976&Docs=&Query=&Time=&EndTime=&SearchMethod=1&TocRestrict=n&Toc=&TocEntry=&QField=&QFieldYear=&QFieldMonth=&QFieldDay=&UseQField=&IntQFieldOp=0&ExtQFieldOp=0&XmlQuery=&File=D%3A%5CZYFILES%5CINDEX%20DATA%5C70THRU75%5CTXT%5C00000001%5C2000PKUG.txt&User=ANONYMOUS&Password=anonymous&SortMethod=h%7C-&MaximumDocuments=1&FuzzyDegree=0&ImageQuality=r75g8/r75g8/x150y150g16/i425&Display=hpfr&DefSeekPage=x&SearchBack=ZyActionL&Back=ZyActionS&BackDesc=Results%20page&MaximumPages=1&ZyEntry=1.

3.13 Population and Housing

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

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

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 extension of roads or other infrastructure)?

No Impact. The proposed project does not include construction of new homes or businesses or the extension of roads or other infrastructure that would induce population growth.

The proposed project would restore the beneficial use of existing groundwater resources that have been contaminated or are threatened with contamination by COCs in the groundwater basin. With project implementation, groundwater supply would be restored, thereby supplementing the City of Los Angeles' local potable water supply and increasing system reliability and sustainability, which would in turn help offset the need for imported water supplies. As discussed in Section 1.3 of the Initial Study/MND, in accordance with the 2015 City of Los Angeles Urban Water Management Plan, the City plans to reduce the purchase of imported water by 50% by 2025 and obtain 50% of its potable water from local sources by 2035. The primary source of local water for the City is groundwater, and the City's primary source of groundwater is the SFB, including the RT Well Field. Because the proposed project is intended to help offset existing imported supplies, it would not increase overall water supplies to the City in a manner that would induce population growth. The proposed project would not affect or increase LADWP's entitlement of groundwater and, therefore, would not result in the development of a new water source. Therefore, the proposed project would not indirectly induce population growth through the provision of additional water supply.

Due to the relatively low number of personnel required for project construction and the expected relatively short duration of construction, workers would be drawn from local communities, and no population growth in the area would occur. The operation of the proposed project would not require a substantial number of personnel and thus would not induce population growth or the need for new housing in the area. No impact would occur relative to population growth.

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

No Impact. The project site contains approximately 12 residential units, all of which are located within the northern section of the NHPS block (City of Los Angeles 2018). Of the 12 units, 4 units are currently owned by LADWP and are unoccupied. The proposed project would involve the acquisition and demolition of the remaining eight units. As such, the proposed project would displace these residential units. The quantity of housing that would be displaced is not substantial relative to the local and regional housing stock within the San Fernando Valley and the greater Los Angeles metropolitan area. Therefore, it is anticipated that current residents would relocate to similar housing within the San Fernando Valley or the greater Los Angeles metropolitan area. Demolition of several housing units within an existing, dense residential area would not necessitate the construction of replacement housing, and no impact would occur.

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

No Impact. As described in Section 3.13(b), the proposed project would involve removal of 12 residential units, which would result in the displacement of people. However, the quantity of housing that would be displaced is not substantial relative to the local and regional housing stock within the San Fernando Valley and the greater Los Angeles metropolitan area. Of the units that are proposed for demolition, four units are unoccupied. The residents of the remaining eight units would be displaced; however, the proposed project is located within an existing dense residential area. Therefore, it is anticipated that current residents would relocate to similar housing within the San Fernando Valley or the greater Los Angeles metropolitan area. Furthermore, relocation assistance may be provided, if necessary. As such, the project would not necessitate the construction of replacement housing elsewhere, and no impact would occur.

References

City of Los Angeles. 2018. Zimas "Assessor" information. Web Map Application. Accessed March 12, 2018. http://zimas.lacity.org/.

3.14 Public Services

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental 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?	☐	☐	☐	☒

a) ***Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental 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. Fire protection for the proposed project site is provided by the Los Angeles Fire Department, and the monitoring of operations is provided by LADWP. The need for new or altered fire facilities is typically associated with an increase in population. As described under Section 3.13, the proposed project would not alter population in the project site. Construction of the proposed project, particularly the pipeline components within roadway rights-of-way, could have the potential to temporarily reduce access for emergency vehicles near the work areas. However, all construction activities would be carried out in accordance with all applicable LADOT and Los Angeles Fire Department emergency access standards. Access would be maintained during construction, or alternative access routes would be identified, if necessary. Operation of the proposed project would occur within the sites of existing public facilities or would occur underground (for the pipelines) and would not require new or expanded fire protection facilities. As such, the proposed project would not generate a requirement for additional fire protection services. No impact would occur.

Police Protection

No Impact. Police protection for the proposed project site is provided by the Los Angeles Police Department and LADWP security personnel. As described under Section 3.13, the proposed project would not alter population in the project site. Construction of the proposed project could have the potential to reduce access for emergency vehicles near the work areas. However, all construction activities would be carried out in accordance with all applicable LADOT and Los Angeles Police Department emergency access standards. Access would be maintained during construction, or alternative access routes would be identified, if necessary. Operation of the proposed project is not expected to required police support. The NHPS property is enclosed with fencing and would continue to be enclosed with fencing upon project implementation. The power line corridor is generally separated from surrounding land uses by walls or fences, and the well heads are fenced from the surrounding areas of the power line corridor. These existing security measures would minimize the likelihood for crime to occur on at the project site. As such, the proposed project would not generate a requirement for additional police protection. No impact would occur.

Schools

No Impact. The proposed project involves the installation of equipment to address releases of COCs in groundwater on a site that is generally used for groundwater pumping, water treatment, and water distribution purposes. No feature of the proposed project would directly generate a demand for school services, nor would the proposed project lead directly or indirectly to substantial population growth such that new or physically altered school facilities would be required. No impact would occur.

Parks

No Impact. The proposed project involves the installation of equipment to address releases of COCs in groundwater on a site that is generally used for groundwater pumping, water treatment, and water distribution purposes. No feature of the proposed project would directly generate a demand for parks, nor would the proposed project lead directly or indirectly to substantial population growth such that new or physically altered park facilities would be required. As such, the proposed project would not alter the service ratios of parkland in the City and would not result in the need for new or physically altered park facilities. No impact would occur.

Other Public Facilities

No Impact. The proposed project is the installation of equipment to remove COCs from groundwater on a site that is generally used for groundwater pumping, water treatment, and water distribution purposes. No new housing or businesses would be constructed as part of the proposed project, and the proposed project would not directly or indirectly induce population growth in the area such that new or physically altered governmental facilities would be required to adequately provide services. No impact would occur.

References

None.

3.15 Recreation

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
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?	☐	☐	☐	☒

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?***

No Impact. The proposed project would not generate additional population that would increase the use of existing neighborhood or regional parks or other recreational facilities. As such, no impact would occur.

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. The proposed project is the installation of water treatment equipment on a site that is already used for groundwater pumping, water treatment, and water distribution purposes. It does not include recreational facilities or require construction or expansion of recreational facilities that might have an adverse physical effect on the environment. No feature of the proposed project would directly generate a demand for parks, and the proposed project would not lead directly or indirectly to substantial population growth such that the construction or expansion of recreation facilities would be required. No impact would occur.

References

None.

3.16 Transportation and Traffic

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
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 measures, or other standards 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 a change in location that results in substantial safety risks?	☐	☐	☐	☒

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
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?	☐	☐	☒	☐

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 Impact. The purpose of this assessment, as detailed in Appendix D of this Initial Study/MND, is to describe the existing and peak construction traffic conditions and identify potential traffic-related temporary construction impacts associated with the proposed project. The project generally consists of (1) NHPS located at the northwestern corner of the intersection of Morella Avenue and Vanowen Street; (2) RT Well Field located approximately 0.5 miles northwest of the NHPS, which will use parking lots within existing LADWP right-of-way along Runnymede Street east of Laurel Canyon Boulevard; and (3) the associated trunk lines between these elements that will run along Morella Avenue and Hart Street before connecting to existing lines within LADWP right-of-way. At completion of the proposed project, permanent operations of the NHPS and RT Well Field would generate nominal traffic associated with routine maintenance by LADWP. Therefore, project traffic impacts, though temporary in nature, are focused on the peak construction phase of the proposed project (i.e., traffic generated by a maximum of workers and trucks due to peak construction related activities).

Analysis Methodology

Per City of Los Angeles Department of Transportation (LADOT) *Traffic Impact Study Guidelines* (December 2016) the intersection evaluation methodology to assess transportation impacts is based on the Transportation Research Board, Circular 212 Critical Movement Analysis (CMA) Planning Method for analyzing traffic operating conditions at study intersections. CMA is a method that determines the volume to capacity (V/C) ratio on a critical lane basis and the level of service (LOS) associated with each V/C ratio at a signalized intersection.

The operational characteristics of an intersection are determined by calculating the intersection's level of service (LOS). The intersection as a whole and its individual turning movements can be described alphabetically with a range of levels of service (A through F), with LOS A indicating free-flow traffic and LOS F indicating extreme congestion and long vehicle delays. Table 3.16-1 provides general operating characteristics associated with each LOS.

Table 3.16-1. Level of Service Definitions using CMA Methodology

Level of Service	V/C Ratio	General Description
A	≤0.600	Free flow
B	0.601 to ≤0.700	Stable flow (slight delays)
C	0.701 to ≤0.800	Stable flow (acceptable delays)
D	0.801 to ≤0.900	Approaching unstable flow (tolerable delay, occasionally wait through more than one signal cycle before proceeding)
E	0.901 to ≤1.00	Unstable flow (intolerable delay)
F	>1.00	Forced flow (jammed)

Source: LADOT 2016.

Significance Criteria

The proposed project is located entirely within the City of Los Angeles and uses the significance criteria provided in the LADOT *Traffic Impact Study Guidelines* (December 2016). LADOT has adopted the following significance criteria to assess whether the addition of project trips would cause a significant impact on study area intersections: A significant impact would occur if the project increases the volume to capacity (V/C) ratio equal or exceeding the thresholds shown in Table 3.16-2.

Table 3.16-2. Significance Criteria for Local Signalized Intersections

Level of Service	Final V/C Ratio	Project-Related Increase in V/C
C	0.701 to 0.800	Equal to or greater than 0.040
D	0.801 to 0.900	Equal to or greater than 0.020
E	0.901 or more	Equal to or greater than 0.010
F	Greater than 1.00	Equal to or greater than 0.010

Source: LADOT 2016.

Per LADOT, for development projects, unsignalized intersections should be evaluated solely to determine the need for the permanent installation of a traffic signal or other traffic control devices. However, since traffic generated by the construction phase of the proposed project would be temporary and would be removed from the street network once the project is constructed, installation of a (permanent) traffic signal would not be required for the construction phase of the project. The permanent operations of the well field would generate zero to nominal traffic associated with occasional routine maintenance by LADWP.

Existing Conditions

The following includes a description of existing conditions in the site vicinity, including existing street system, existing weekday AM and PM peak hour traffic volumes, existing roadway segment daily traffic volumes, and traffic operations. The existing conditions are representative of the year 2018. Figure 3.16-1 shows the study area intersections and indicates their existing traffic controls and geometrics.

Street Network

Characteristics of the existing street system in the study area are described below and shown in Table 3.16-3.

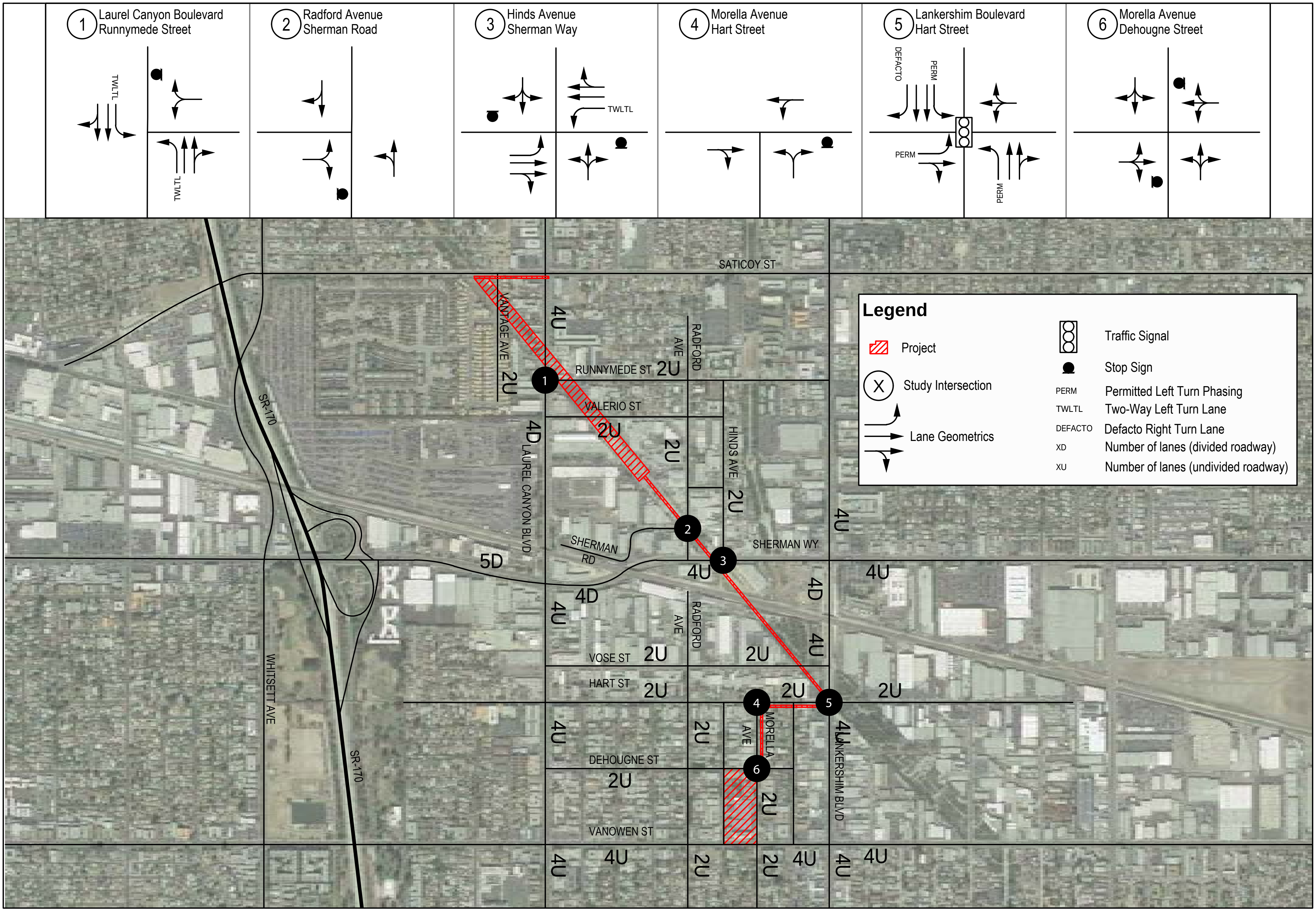
Table 3.16-3. Study Area Existing Street System Summary

Roadway	Street Classification	Posted Speed Limit (mph)	No. of Travel Lanes	Parking	Sidewalks	Bicycle Lanes
Laurel Canyon Boulevard	Avenue I	40	4	Yes	Yes	Yes – Class II
Sherman Way	Boulevard II	35	4	Some sections/time restrictions	Yes	Yes – Class II
Lankershim Boulevard	Boulevard II	35	4	Some sections/time restrictions	Some sections	Yes – Class II and Class III
Runnymede Street	Collector	25	2	Yes	Yes	No

Source: LADCP 2017a, 2017b.
Notes: mph = miles per hour

State Route 170 (SR-170) is a north–south, eight-lane (four lanes in each direction) freeway that primarily serves commuter traffic in the eastern San Fernando Valley. This freeway is located between Interstate 405 (I-405) and Interstate 5 (I-5), and runs from U.S. Route 101 at its junction with State Route 134 (SR-134), to I-5 near Tujunga.

Laurel Canyon Boulevard is a north–south roadway that is parallel to SR-170. In the vicinity of the proposed project, Laurel Canyon Boulevard is a four-lane roadway with a center intermittent two-way-left-turn lane (TWLTL). Laurel Canyon Boulevard has a paved sidewalk on both sides of the roadway, with Class II (painted) separated bicycle lanes, and parking is permitted along the roadway. The posted speed limit on Laurel Canyon Boulevard is 40 miles per hour (mph). The ADT along Laurel Canyon Boulevard, just north of its intersection with Runnymede Street is approximately 22,000 vehicles.



Source: Google Maps, 10/2016

NOT TO SCALE

FIGURE 3.16-1

Existing Traffic Control and Geometrics

Proposed North Hollywood Central Groundwater Treatment Action

INTENTIONALLY LEFT BLANK

Sherman Way is an east–west roadway that has an interchange with SR-170. In the vicinity of the proposed project, Sherman way is a four-lane roadway with an intermittent TWLTL. Sherman Way has a paved sidewalk on both sides of the roadway, with Class II (painted) bicycle lanes, and parking is permitted along portions of the roadway. The posted speed limit on Sherman Way is 35 mph. The ADT along Sherman Way, just east of its intersection with Hinds Avenue is approximately 31,000 vehicles.

Lankershim Boulevard is a north–south roadway that is parallel to Laurel Canyon Boulevard. In the vicinity of the proposed project, Lankershim Boulevard is a four-lane roadway with an intermittent TWLTL. Lankershim Boulevard lacks a paved sidewalk on portions of the roadway south of Hart Street, has parking permitted along some portions of the roadway, and has Class II (painted) bicycle lanes or Class III bicycle routes. The posted speed limit on Lankershim Boulevard is 35 mph.

Runnymede Street is an east–west, two-lane street with a paved sidewalk and parking on both sides of the roadway. Parking is permitted along the roadway. The posted speed limit on Runnymede Street is 25 mph. The ADT along Runnymede Street, just east of its intersection with Laurel Canyon Boulevard is approximately 1,900 vehicles.

Transit System

The Los Angeles County Metropolitan Transportation Authority (LA Metro) provides transit service in the project study area. LA Metro Route 165 provides bus service along Vanowen Street near the NHPS and trunk line staging areas, while Route 230 provides bus service along Laurel Canyon Boulevard in close proximity to LADWP right-of-way along Runnymede Street. Other routes, such as Route 162/163, provide service along Sherman Way, while Routes 224 and 353 provide service along Lankershim Boulevard.

Route 165 travels primarily along Vanowen Street and connects the Fallbrook Center and Burbank Regional Intermodal Transportation Center. During the week, Route 165 runs from 4:35 a.m. and ends at 11:38 p.m. on weekdays, from 5:18 a.m. to 11:38 p.m. on Saturdays, and from 5:57 a.m. to 11:38 p.m. on Sundays and holidays. Service is provided approximately every 30 to 60 minutes on weekdays and weekends/holidays. LA Metro Route 230 travels along Laurel Canyon Boulevard and connects El Cariso Regional Park to the CBS Studio Center. During the week, Route 230 runs from 4:59 a.m. and ends at 11:27 p.m. on weekdays, from 5:14 a.m. to 11:10 p.m. on Saturdays, and from 6:32 a.m. to 10:58 p.m. on Sundays and holidays. It provides service approximately every 40to 60 minutes on weekdays and weekends/holidays.

Traffic Volumes

Existing peak hour turn movement counts at the study intersections were conducted in March 2018. Worksheets for the raw peak hour turn movement counts in the LADOT format are provided in Appendix D. The traffic volumes for trucks were converted to their passenger car equivalence by applying the appropriate factor (generally 2.0 for medium-sized trucks and 3.0 for semi-trailer trucks). Figure 3.16-2 shows the Existing AM and PM peak hour traffic volumes (passenger car equivalence adjusted volumes).

Levels of Service

An intersection LOS analysis was prepared for the existing conditions using the CMA methodologies, and Table 3.16-4 shows the results of the existing weekday peak hour LOS analysis. The intersection level of service (LOS) analysis focuses on the weekday AM peak hour between 7:00 a.m. and 10:00 a.m. and the weekday PM peak hour between 3:00 p.m. and 6:00 p.m.

Table 3.16-4. Existing Weekday Peak Hour Intersection LOS

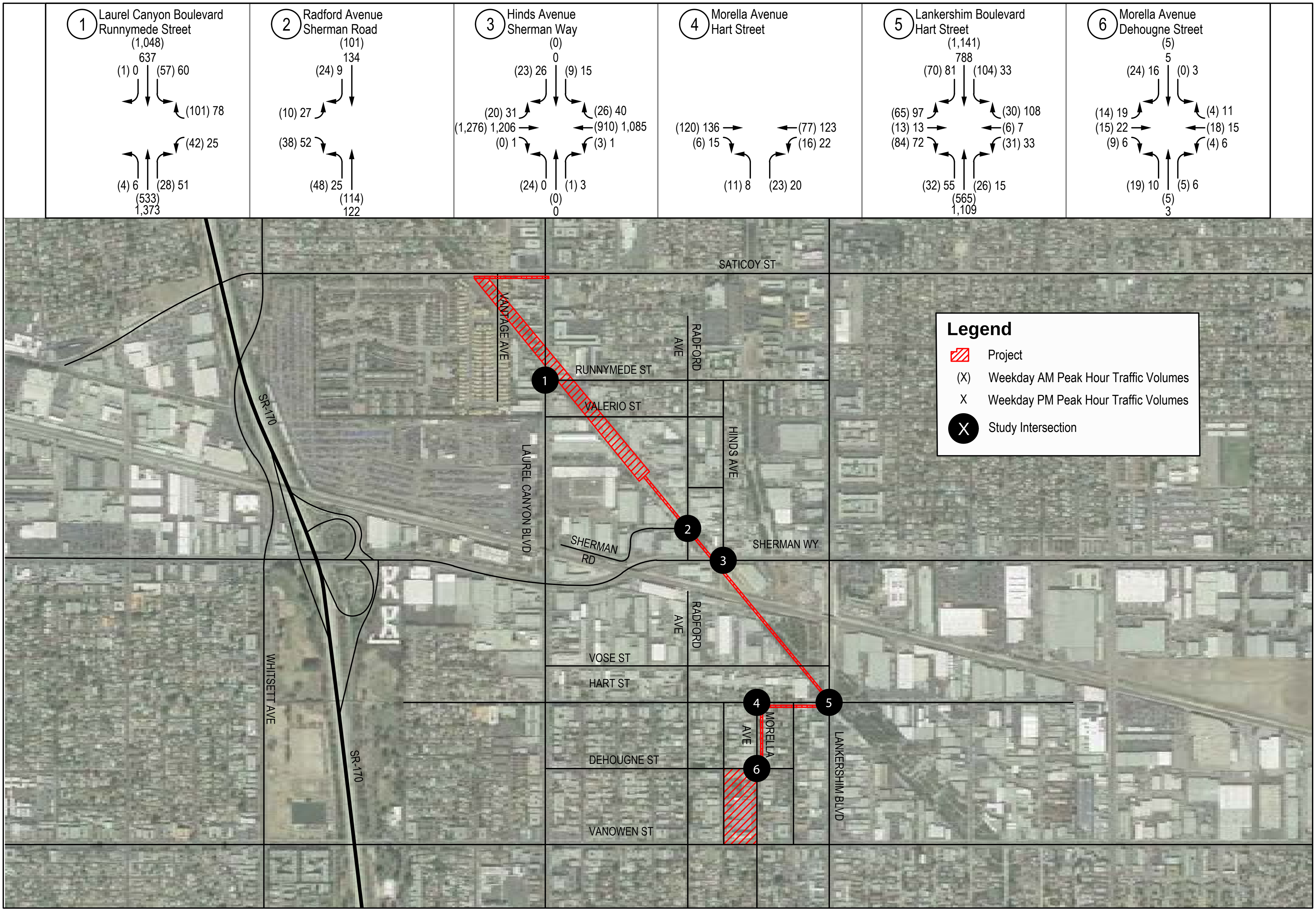
No.	Intersection	Control Type	LOS Method	AM Peak		PM Peak	
				V/C	*LOS*	*V/C*	*LOS*
1	Laurel Canyon Blvd./Runnymede St.	Unsignalized	CMA	0.560	A	0.729	C
2	Radford Ave./Sherman Rd.	Unsignalized	CMA	0.184	A	0.206	A
3	Hinds Ave./Sherman Wy.	Unsignalized	CMA	0.581	A	0.538	A
4	Morella Ave./Hart St.	Unsignalized	CMA	0.147	A	0.168	A
5	Lankershim Blvd./Hart St.	Signal	CMA	0.390	A	0.460	A
6	Morella Ave./Dehougne St.	Unsignalized	CMA	0.075	A	0.073	A

Source: Appendix D.
Notes: CMA = LADOT CMA Methodology; V/C = volume-to-capacity ratio; LOS = level of service

As shown in Table 3.16-4, all six study area intersections are currently operating at LOS C or better under existing conditions. Worksheets for the LOS analysis are provided in Appendix D.

Peak Construction Baseline (No Project) Conditions

Per the project's construction schedule, as detailed in Table 2-1, it is anticipated that March 2020 would contain the highest volume of construction traffic (i.e., construction-related workers and trucks) related to the construction activities on the three main components of the proposed project (pump station, well field, and trunk lines). As previously noted, at completion of the proposed project, permanent operations would generate nominal traffic associated with routine maintenance by LADWP.



Source: Google Maps, 10/2016

Los Angeles Department of Water & Power

NOT TO SCALE

FIGURE 3.16-2

Existing AM and PM Peak Hour Traffic Volumes

Proposed North Hollywood Central Groundwater Treatment Action

INTENTIONALLY LEFT BLANK

Traffic Volumes

Peak Construction Baseline traffic volumes include traffic from ambient growth and traffic from the addition of cumulative projects in the vicinity of the project. A growth rate of 0.5% per year, provided in the "General Traffic Volume Growth Factors" (from the respective Regional Statistical Area No. 13 – RSA) found in Exhibit D-1 of the Los Angeles County *Congestion Management Program* (CMP 2010) was applied to the existing traffic volumes to account for the year 2020 peak construction timeframe. In addition, traffic from cumulative (approved/pending but not yet constructed) projects in the vicinity of the project was also added. A list of cumulative projects from the Department of City Planning, Case Reports, identified that only two cumulative development projects that would add traffic to the project study area. As shown in Table 3.16-5, the cumulative projects are forecast to generate approximately 360 daily trips, 26 AM peak hour trips, and 39 PM peak hour trips. These trips were distributed through the existing network primarily along Lankershim Boulevard and Sherman Way and added to the existing traffic volumes (with the ambient growth rate applied). Figure 3.16-3 shows the location of cumulative projects. Table 3.16-5 provides the trip generation of cumulative development projects.

As shown in Table 3.16-5, the cumulative projects are forecast to generate approximately 360 daily trips, 26 AM peak hour trips, and 39 PM peak hour trips. These trips were distributed through the existing network primarily along Lankershim Boulevard and Sherman Way and added to the existing traffic volumes (with the ambient growth rate applied). Figure 3.16-4 shows the Peak Construction Baseline AM and PM peak hour traffic volumes.

Table 3.16-5. Cumulative Project Trip Generation

Land Use	Size/Units	Daily Trips	AM Peak Hour			PM Peak Hour		
			In	*Out*	*Total*	*In*	*Out*	*Total*
Trip Generation[a]								
12212 W. Victory Blvd. – 16-Unit Small Lot Subdivision	16 DU	151	3	9	12	10	6	16
6840 N. Troost Ave. – Self-Storage Facility	138.47 TSF	209	8	6	14	12	12	24
Total Trip Generation		**360**	**11**	**15**	**26**	**22**	**18**	**40**

Notes: DU = Dwelling Units, TSF = '000 square feet

[a] Institute of Transportation Engineers 2017.

Levels of Service

An intersection LOS analysis was prepared for the Peak Construction Baseline conditions using the CMA methodology, and the results are shown in Table 3.16-6.

Table 3.16-6. Peak Construction Baseline Weekday Peak Hour Intersection LOS

No.	Intersection	Control Type	LOS Method	AM Peak		PM Peak	
				V/C	*LOS*	*V/C*	*LOS*
1	Laurel Canyon Blvd./ Runnymede St.	Unsignalized	CMA	0.566	A	0.738	C
2	Radford Ave./Sherman Rd.	Unsignalized	CMA	0.185	A	0.208	A
3	Hinds Ave./Sherman Wy.	Unsignalized	CMA	0.588	A	0.547	A
4	Morella Ave./Hart St.	Unsignalized	CMA	0.148	A	0.168	A
5	Lankershim Blvd./Hart St.	Signal	CMA	0.396	A	0.468	A
6	Morella Ave./Dehougne St.	Unsignalized	CMA	0.075	A	0.073	A

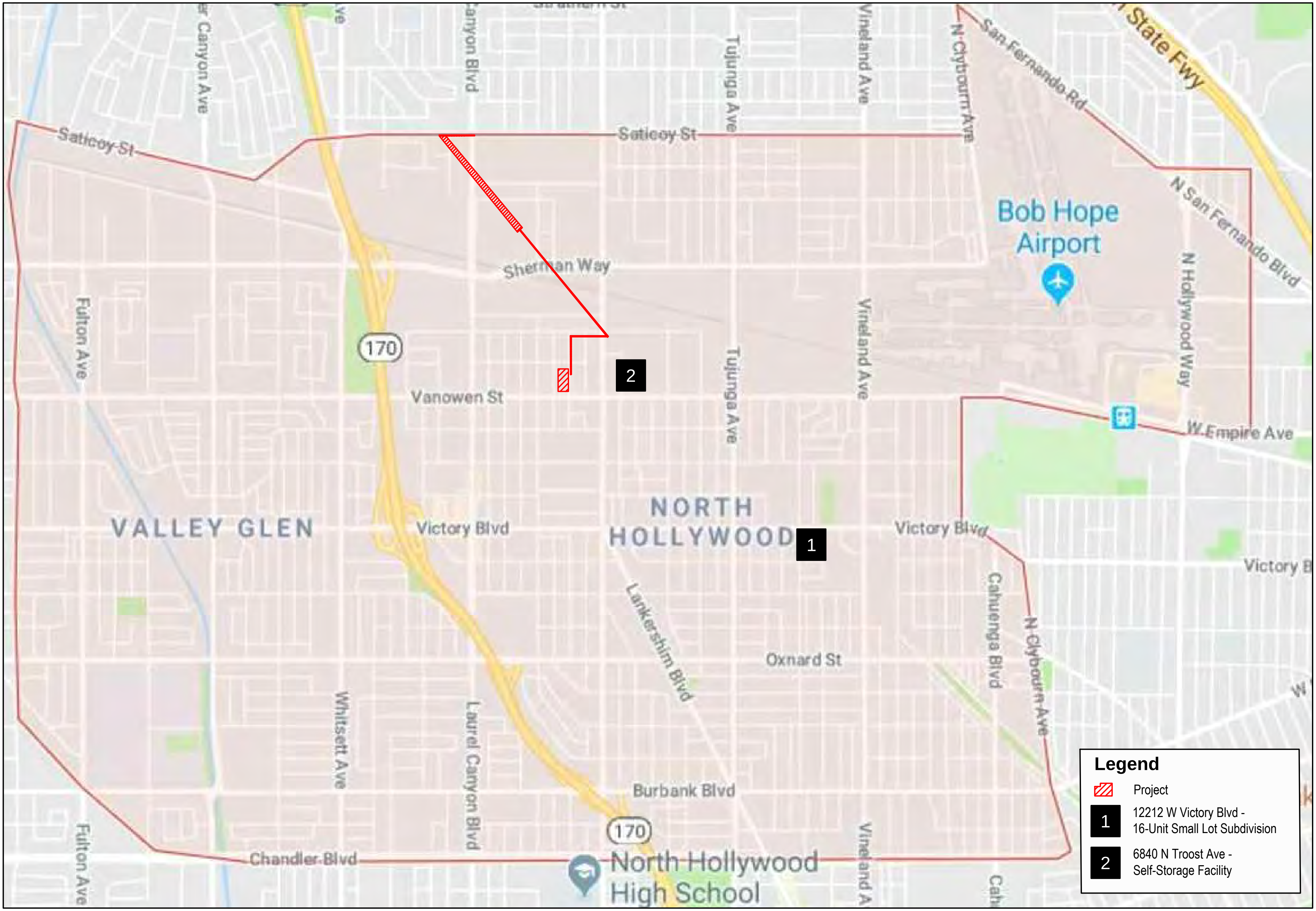
Source: Appendix D.
Notes: CMA = LADOT CMA Methodology; V/C = volume-to-capacity ratio; LOS = level of service

As shown in Table 3.16-6, all of the study area intersections are forecast to continue to operate at LOS C or better under Peak Construction Baseline conditions in both peak hours. Worksheets for the LOS analysis are provided in Appendix D.

Construction Traffic Generation

The Institute of Transportation Engineers' (ITE) *Trip Generation* manual does not contain trip rates for the construction-related activities; therefore, general construction schedule provided by LADWP was used to estimate proposed project's construction traffic generation. Based on the estimated average number of workers, off-site truck trips, and equipment across the various phases and months of the proposed project, the peak construction period was identified to be March 2020. Based on the conceptual construction schedule presented in Table 2-1, the maximum number of daily on-site workers would be 60 workers, 10 of which are supervisory and office workers. The breakdown of trips are as follows: 40 workers and 5 trucks for the NHPS, 14 workers and 3 trucks for the trunk line, and 6 workers and 2 trucks for the RT Well Field. Due to the proximity of pipe jacking activity occurring near Lankershim Boulevard, trunk line construction traffic was assumed to originate to/from the NHPS. To estimate the worst case, all workers were assumed to arrive and depart the project site during the AM and PM peak hours, respectively, and no carpooling was assumed.

Per the existing peak hour traffic counts at the study intersections conducted in March 2018, the specific AM peak hour in the study area starts as early as 7:00 a.m. to 8:00 a.m. to as late as 7:45 a.m. to 8:45 a.m., while the PM peak hour starts from 3:15 p.m. to 4:15 p.m. to as late as 5:00 p.m. to 600 p.m. Approximately 50% of the workers would arrive at the construction site before 7:00 a.m. and leave by 4:00 p.m., based on the planned construction occurring in two shifts between the hours of 7:00 a.m. and 6:00 p.m., which would be outside the AM and PM peak hours of all the adjacent streets in the study area. In addition, approximately 10% of the workers are assumed to carpool to the site.



Source: City of Los Angeles, Planning Department Case Reports Feb 2017-Feb 2018

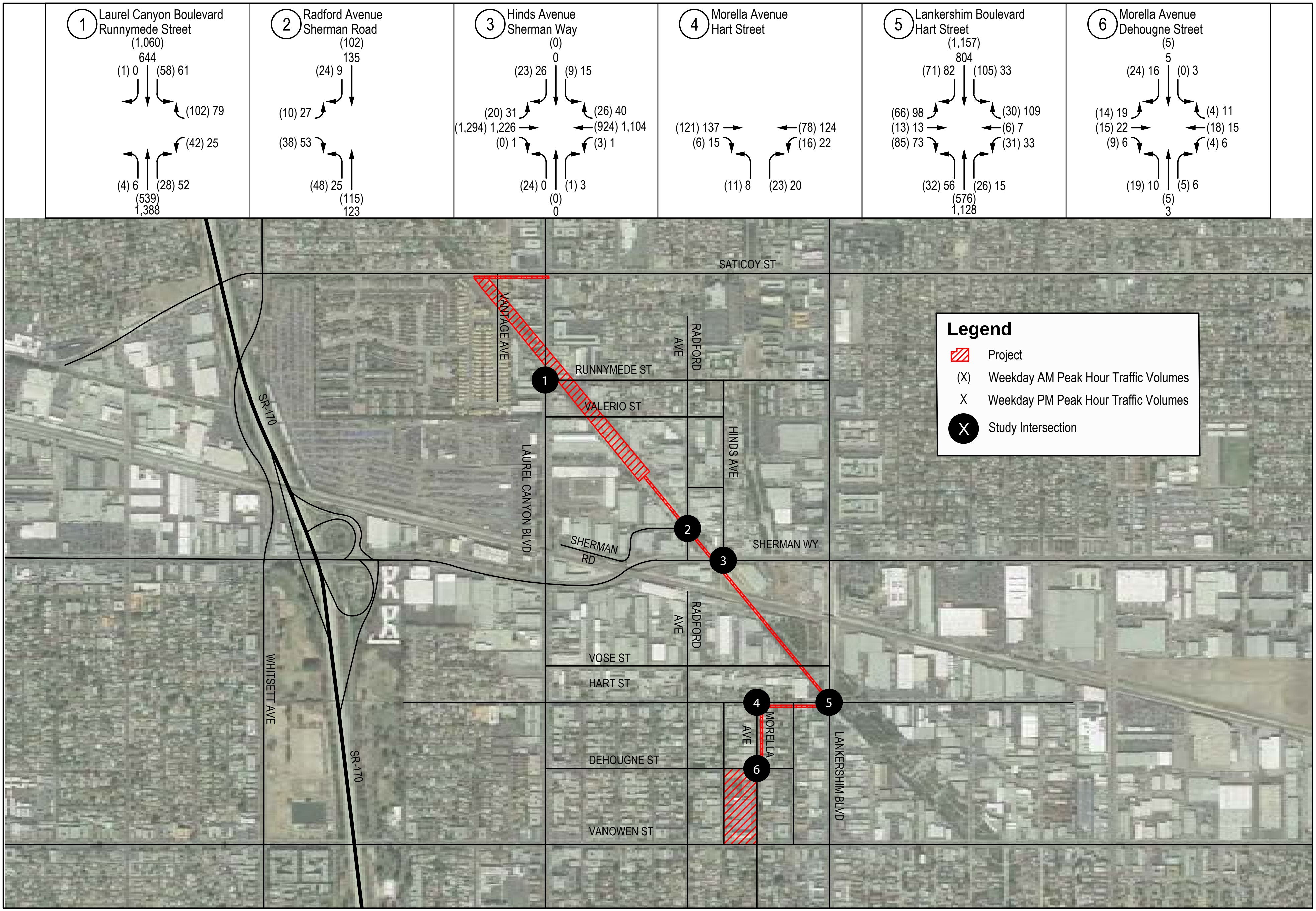
NOT TO SCALE

FIGURE 3.16-3

Location of Cumulative Projects

Proposed North Hollywood Central Groundwater Treatment Action

INTENTIONALLY LEFT BLANK



Source: Google Maps, 10/2016

NOT TO SCALE

FIGURE 3.16-4

Peak Construction (Baseline) AM and PM Peak Hour Traffic Volumes

Proposed North Hollywood Central Groundwater Treatment Action

INTENTIONALLY LEFT BLANK

The average number of daily off-site truck trips throughout project construction would range from 2 to 30 truck trips per day (1 to 15 round truck trips). These truck trips would generally be distributed throughout the workday. However, to be conservative, 2 truck trips (1 inbound and 1 outbound) were assumed during each of the peak hours. Table 3.16-7 provides projects' trip generation for the peak construction phase.

Table 3.16-7. Project Trip Generation

Vehicle Type	Daily Quantity	Daily Trips	AM Peak Hour			PM Peak Hour		
			In	*Out*	*Total*	*In*	*Out*	*Total*
Trip Generation								
North Hollywood Pump Station								
Workers (cars)	20 workers	40	20	0	20	0	20	20
Equipment delivery trucks	5 trucks	10	1	1	2	1	1	2
Subtotal		*50*	*21*	*1*	*22*	*1*	*21*	*22*
Trunk Line								
Workers (cars)	7 workers	14	7	0	7	0	7	7
Equipment delivery trucks	3 trucks	6	1	1	2	1	1	2
Subtotal		*20*	*8*	*1*	*9*	*1*	*8*	*9*
RT Well Field								
Workers (cars)	3 workers	6	3	0	3	0	3	3
Equipment delivery trucks	2 trucks	4	1	1	2	1	1	2
Subtotal		*10*	*4*	*1*	*5*	*1*	*4*	*5*
Total		**80**	**33**	**3**	**36**	**3**	**33**	**36**
Trip Generation with Passenger Car Equivalent								
North Hollywood Pump Station								
Workers (1.0 passenger car equivalent)[1]	19 workers	38	19	0	19	0	19	19
Equipment delivery trucks (3.0 passenger car equivalent)	5 trucks	30	3	3	6	3	3	6
Subtotal		*68*	*22*	*3*	*25*	*3*	*22*	*25*
Trunk Line								
Workers (1.0 passenger car equivalent)[1]	7 workers	14	7	0	7	0	7	7
Equipment delivery trucks (3.0 passenger car equivalent)	3 trucks	18	3	3	6	3	3	6
Subtotal		*32*	*10*	*3*	*13*	*3*	*10*	*13*
RT Well Field								
Workers (1.0 passenger car equivalent)[1]	3 workers	6	3	0	3	0	3	3

Table 3.16-7. Project Trip Generation

Vehicle Type	Daily Quantity	Daily Trips	AM Peak Hour			PM Peak Hour		
			In	*Out*	*Total*	*In*	*Out*	*Total*
Equipment delivery trucks (3.0 passenger car equivalent)	2 trucks	12	3	3	6	3	3	6
Subtotal		*18*	*6*	*3*	*9*	*3*	*6*	*9*
Total (w/ Passenger Car Equivalent)		**118**	**38**	**9**	**47**	**9**	**38**	**47**

Source: Appendix D.
Notes: [1] A carpool factor of 1.1 (i.e., 10%) was utilized to estimate number of worker passenger cars generated in the peak hours.

As shown in Table 3.16-7, the project would generate 80 daily trips, approximately 36 AM peak hour trips (33 inbound and 3 outbound), and approximately 36 PM peak hour trips (3 inbound and 33 outbound). With the application of the passenger car equivalence factor to truck trips and rounding up the resulting trips to be conservative, the proposed project would generate 118 passenger car equivalence daily trips, 47 passenger car equivalence trips during the AM peak hour (38 inbound and 9 outbound), and 47 passenger car equivalence trips during the PM peak hour (9 inbound and 38 outbound).

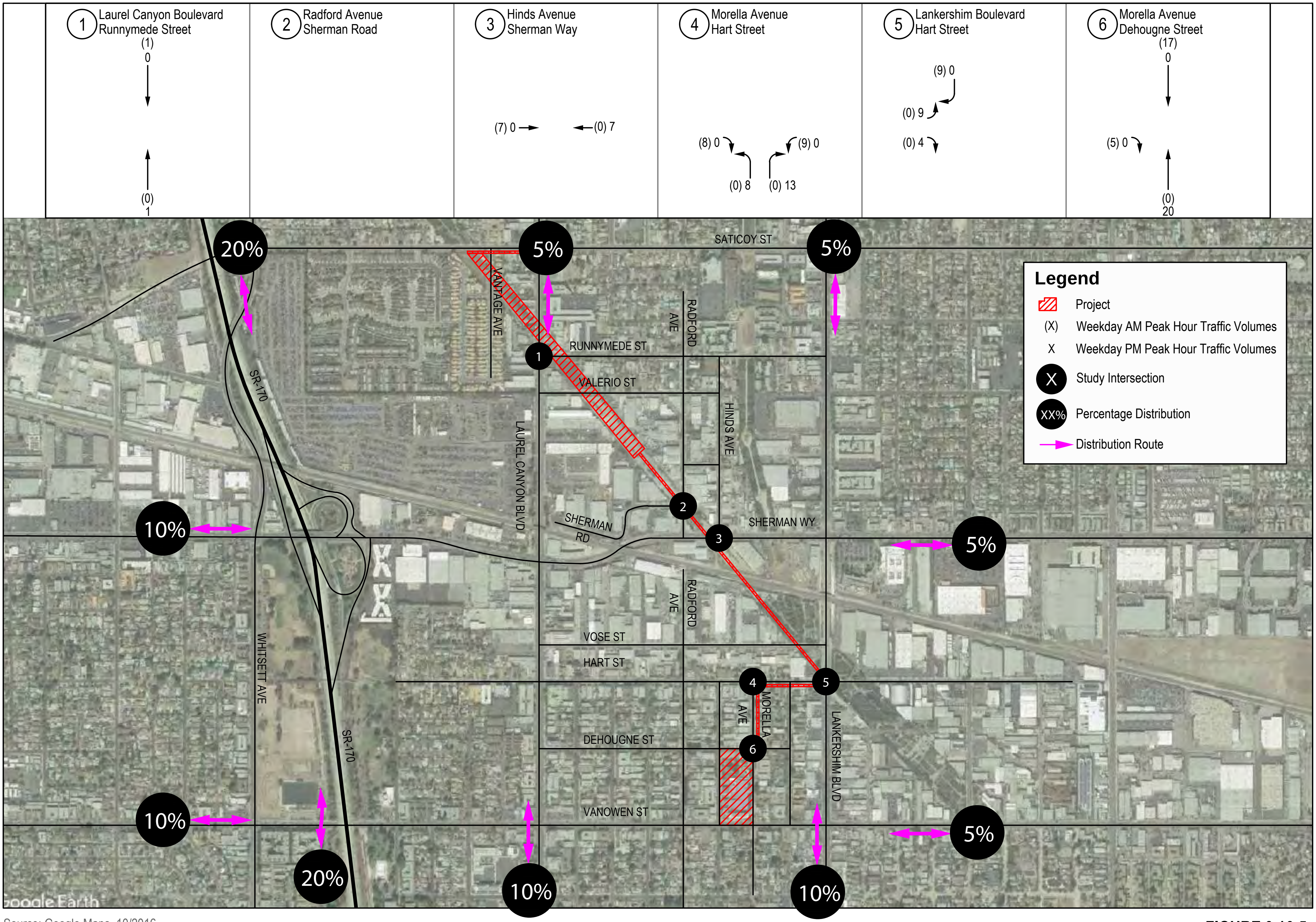
Construction Traffic Distribution and Assignment

Temporary staging and laydown areas for construction materials and equipment would be accommodated within the NHPS for both the NHPS and trunk line construction, as well as two parking lots within LADWP right-of-way on Morella Avenue for construction workers. RT Well Field construction material, equipment, workers and trucks would be accommodated within an existing lot within the LADWP power line corridor right-of-way, with access off Runnymede Street. Construction traffic was distributed to the study area intersections and roadway segments based on logical commute routes for workers and the nearest freeway access with truck routes for construction-related trucks. Construction related trips were assigned to the study area intersections by applying the project trip generation estimates to the trip distribution percentages at each study area intersection and roadway segments.

The project trip distribution and assignment for NHPS and trunk line workers is shown in Figure 3.16-5, while the passenger car equivalence adjusted project trip distribution and assignment for NHPS and trunk line trucks is shown in Figure 3.16-6. The project trip distribution and assignment for RT Well Field workers is shown in Figure 3.16-7, while the passenger car equivalence adjusted project trip distribution and assignment for RT Well Field trucks is shown in Figure 3.16-8.

Construction Traffic Impacts

Traffic impacts due to construction of the proposed project under the Existing plus Project and Peak Construction plus Project conditions were forecast by adding project traffic volumes to the existing traffic volumes and the Peak Construction Baseline traffic volumes, respectively.



Source: Google Maps, 10/2016

LA DWP Los Angeles Department of Water & Power

NOT TO SCALE

FIGURE 3.16-5

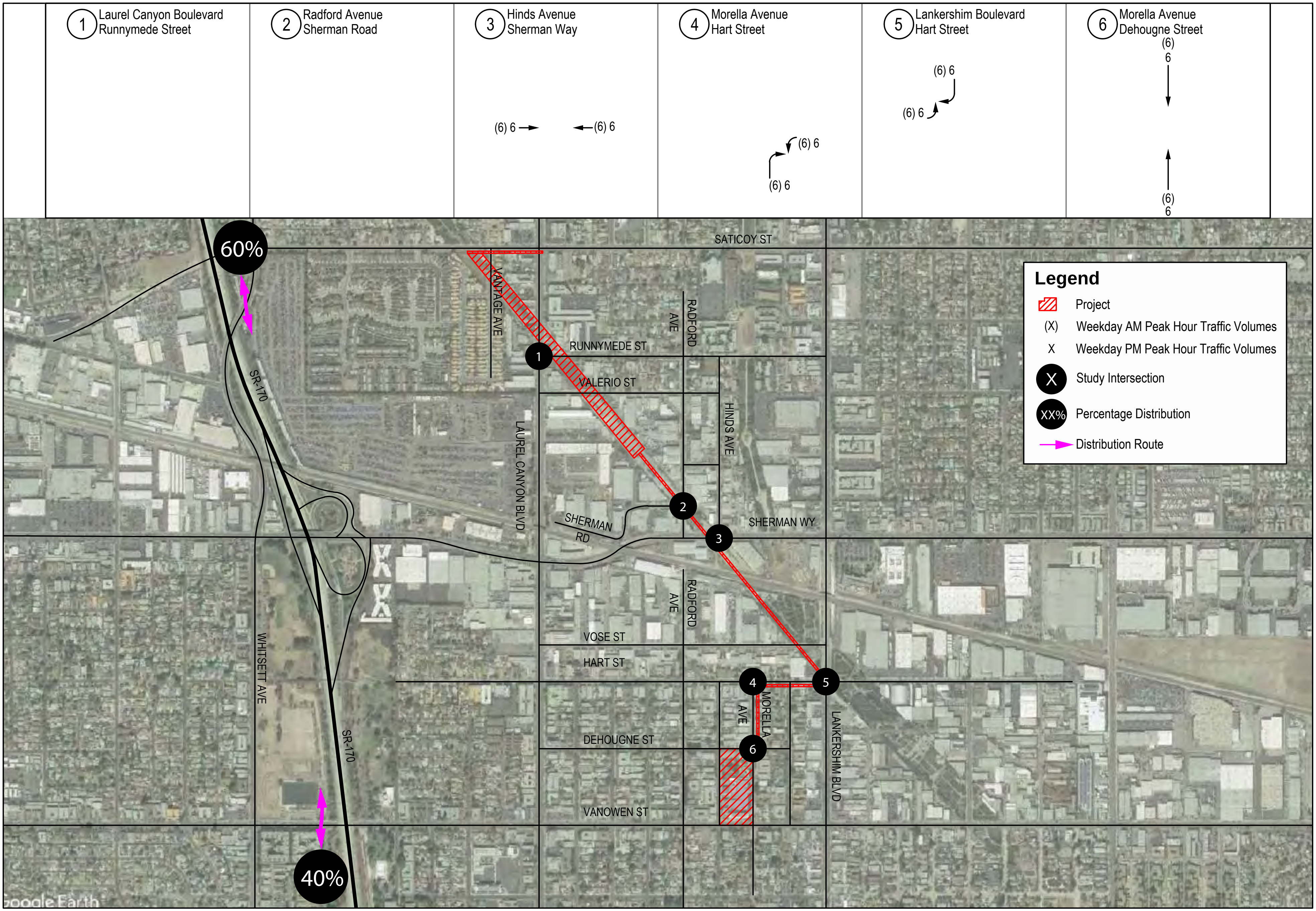
Project Trip Distribution & Assignment - North Hollywood Pump Station + Trunk Line - Workers

Proposed North Hollywood Central Groundwater Treatment Action

May 24, 2018 - 3:45pm mpopovic P:\300.Environmental\10649 LADWP On-Call Services\03 Task Orders\31_North Hollywood Central MND\02 Dudek work products\Documents\03 Technical Studies\Transportation\Graphics\Autocad Files\Base_LADWPNH_05.24.18.dwg Layout: Fig5-NHPSTrkWkr

INTENTIONALLY LEFT BLANK

May 24, 2018 - 3:52pm mpopovic P:\1300.Environmental\10649 LADWP On-Call Services\03 Task Orders\31_North Hollywood Central MND\02 Dudek work products\Documents\03 Technical Studies\Transportation\Graphics\Autocad Files\Base_LADWPNH_05.24.18.dwg Layout: Fig6-NHPSTrkTruck



Source: Google Maps, 10/2016

FIGURE 3.16-6

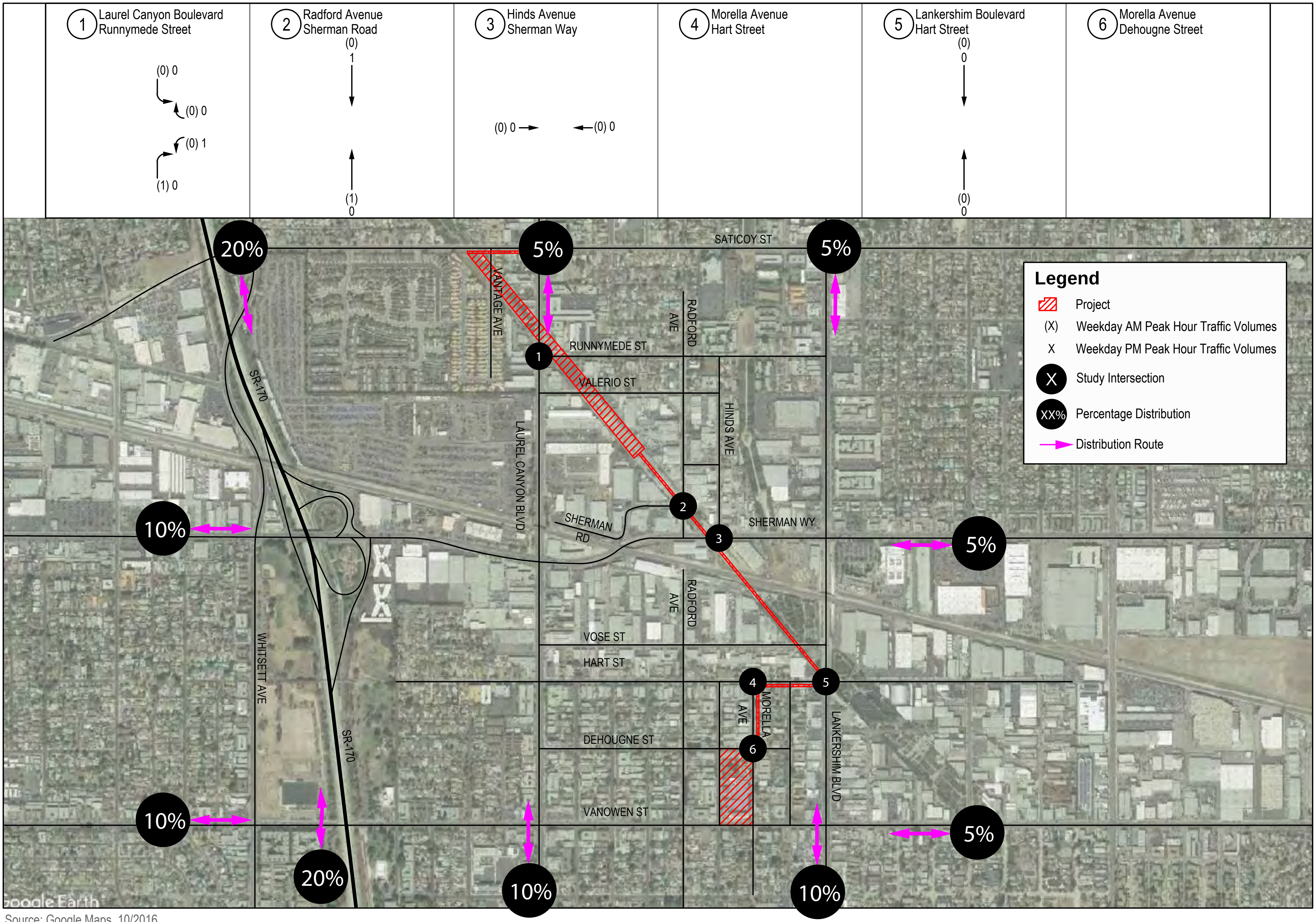
Project Trip Distribution & Assignment - North Hollywood Pump Station + Trunk Line - Trucks (PCE-Adjusted)

Proposed North Hollywood Central Groundwater Treatment Action

LA DWP Los Angeles Department of Water & Power

NOT TO SCALE

INTENTIONALLY LEFT BLANK



Source: Google Maps, 10/2016

NOT TO SCALE

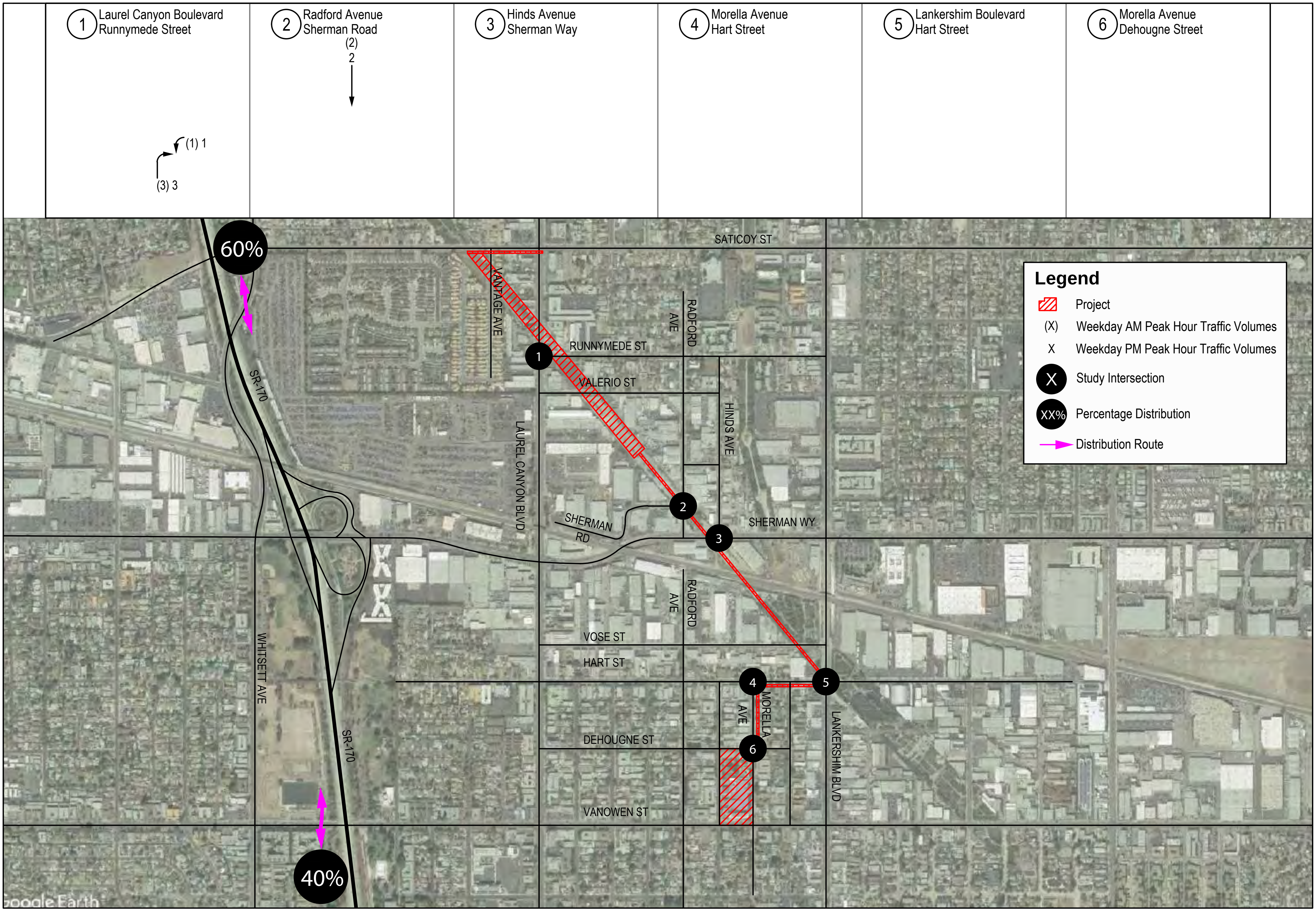
FIGURE 3.16-7

Project Trip Distribution & Assignment - RT Well Field - Workers

Proposed North Hollywood Central Groundwater Treatment Action

May 24, 2018 - 3:46pm mpopovic P:\1300 Environmental\10649 LADWP On-Call Services\03 Task Orders\31_North Hollywood Central MND\02 Dudek work products\Documents\03 Technical Studies\Transportation\Graphics\Autocad Files\Base_LADWPNH_05.24.18.dwg Layout: Fig7-WFWkr

INTENTIONALLY LEFT BLANK



Source: Google Maps, 10/2016

NOT TO SCALE

FIGURE 3.16-8

Project Trip Distribution & Assignment - RT Well Field - Trucks (PCE-Adjusted)

Proposed North Hollywood Central Groundwater Treatment Action

INTENTIONALLY LEFT BLANK

Existing plus Project Conditions

The project trip assignments for all aspects of the project regarding construction-related project traffic (workers and trucks), were added to the existing traffic volumes shown in Figure 3.16-2 to derive the Existing plus Project traffic volumes. Figure 3.16-9 illustrates the Existing plus Project traffic volumes that were used to evaluate Existing plus Project traffic conditions. An intersection LOS analysis was prepared using the CMA methodologies, and Table 3.16-8 shows the results of the peak hour LOS analysis. Worksheets for the LOS analysis are provided in Appendix D.

As shown in Table 3.16-8, with the addition of project construction traffic, all study area intersections are forecast to continue to operate at LOS C or better under Existing plus Project conditions in both peak hours. Therefore, impacts would be less than significant.

Peak Construction plus Project Conditions

The project trip assignments (in passenger car equivalence) for construction-related project traffic (workers and trucks), were added to the Peak Construction Baseline traffic volumes shown in Figure 3.16-4 to derive the Peak Construction plus Project traffic volumes. Figure 3.16-10 illustrates the Peak Construction plus Project traffic volumes. An intersection LOS analysis was prepared using the CMA methodologies, and Table 3.16-9 shows the results of the peak hour LOS analysis. Worksheets for the LOS analysis are provided in Appendix D.

As shown in Table 3.16-9, with the addition of project construction traffic, all study area intersections are forecast to continue to operate at LOS C or better under Peak Construction plus Project conditions in both peak hours. Therefore, impacts would be less than significant.

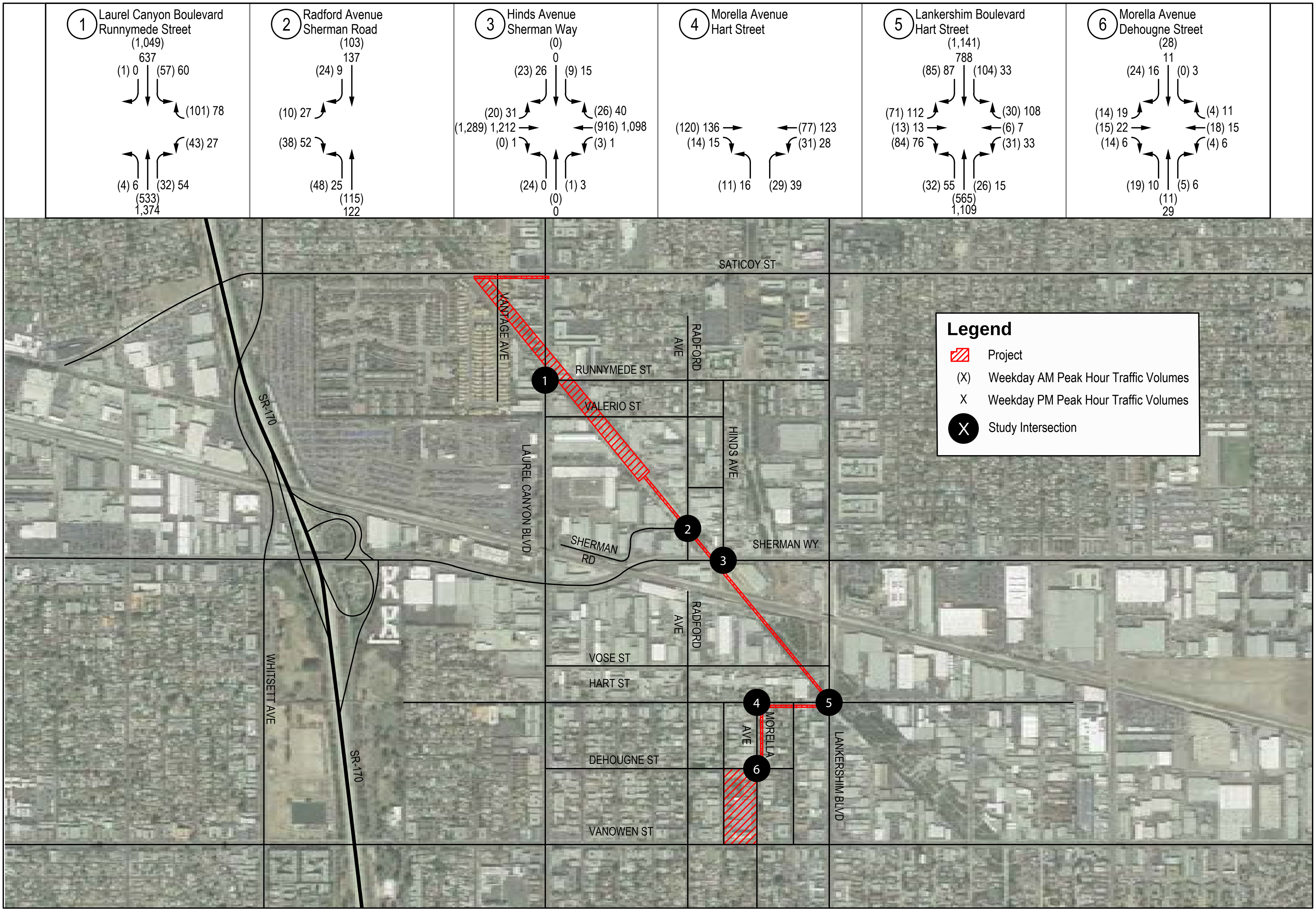
Street Segment Closures on Morella Avenue and Hart Avenue

Construction of the trunk lines would require roadway closures of short segments (specific distances and work areas are unknown at this time) of Morella Avenue and Hart Avenue. During those periods, through traffic in both directions, vehicular access to residences, and on-street parking would not be permitted in the work areas. However, while local residential vehicular access would be temporarily blocked, residents would be provided pedestrian and bicycle access to their homes at all times. Resident parking and on-street parking along closed segments would be temporarily displaced during segment construction, requiring residents/guests to park on adjacent streets. Nearby streets that can service residents and through traffic temporarily impacted by the roadway segment closures include Dehougne Street, Hinds Avenue, and Simpson Avenue. Due to the temporary nature of this impact, traffic impacts during construction would be less than significant.

As required by the City, any construction activities occurring within existing roadways are required to prepare and submit to the Bureau of Engineering a Construction Traffic Management Plan prior to receiving a construction permit. The Construction Traffic Management Plan would include the following:

1. All construction activities would be conducted in accordance with the Standard Specifications for Public Works Construction (Greenbook) and traffic control plans designed by LADOT/LADWP to allow the least impacts to levels of service, traffic safety, and emergency access to the site during construction.
2. LADWP will install temporary equipment necessary for safe and efficient traffic control including changeable message signs, delineators, arrow boards, K-Rails, and flagmen.
3. LADWP will provide advance notification of the proposed construction work area limits and lane closure times to transit (LA Metro) and all local emergency service providers (e.g., police, fire, ambulance).
4. Qualified flagmen will be posted at each work site to direct construction traffic entering and exiting the site and/or direct large construction-related vehicles to/from the work areas.
5. Construction of the trunk lines would require roadway closures of short segments (specific distances and work areas are unknown at this time) of Morella Avenue and Hart Avenue. During those periods, through traffic in both directions, vehicular access to residences and on-street parking will not be permitted in the work areas. However, while local residential vehicular access would be temporarily blocked, residents would be provided pedestrian and bicycle access to their homes at all times. Resident parking and on-street parking along closed segments would be temporarily displaced during segment construction, requiring residents/guests to park on adjacent streets. Nearby streets that can service residents and through traffic temporarily impacted by the roadway segment closures include Dehougne Street, Hinds Avenue, and Simpson Avenue. The proposed project will provide detour routes and/or Traffic Control Plans for these temporary roadway segment closures.
6. The Traffic Control Plans will also include detours and safe passage areas for bicyclists and pedestrians in the impacted work areas.

Therefore, because access would be maintained throughout construction within the roadway, detours in the immediate vicinity would be provided if all travel lanes are not available for vehicular traffic during the AM and PM peak periods, and the City would require the preparation of a Construction Traffic Management Plan, all impacts associated with installing the trunk lines within the study area would be less than significant.



Source: Google Maps, 10/2016

Los Angeles Department of Water & Power

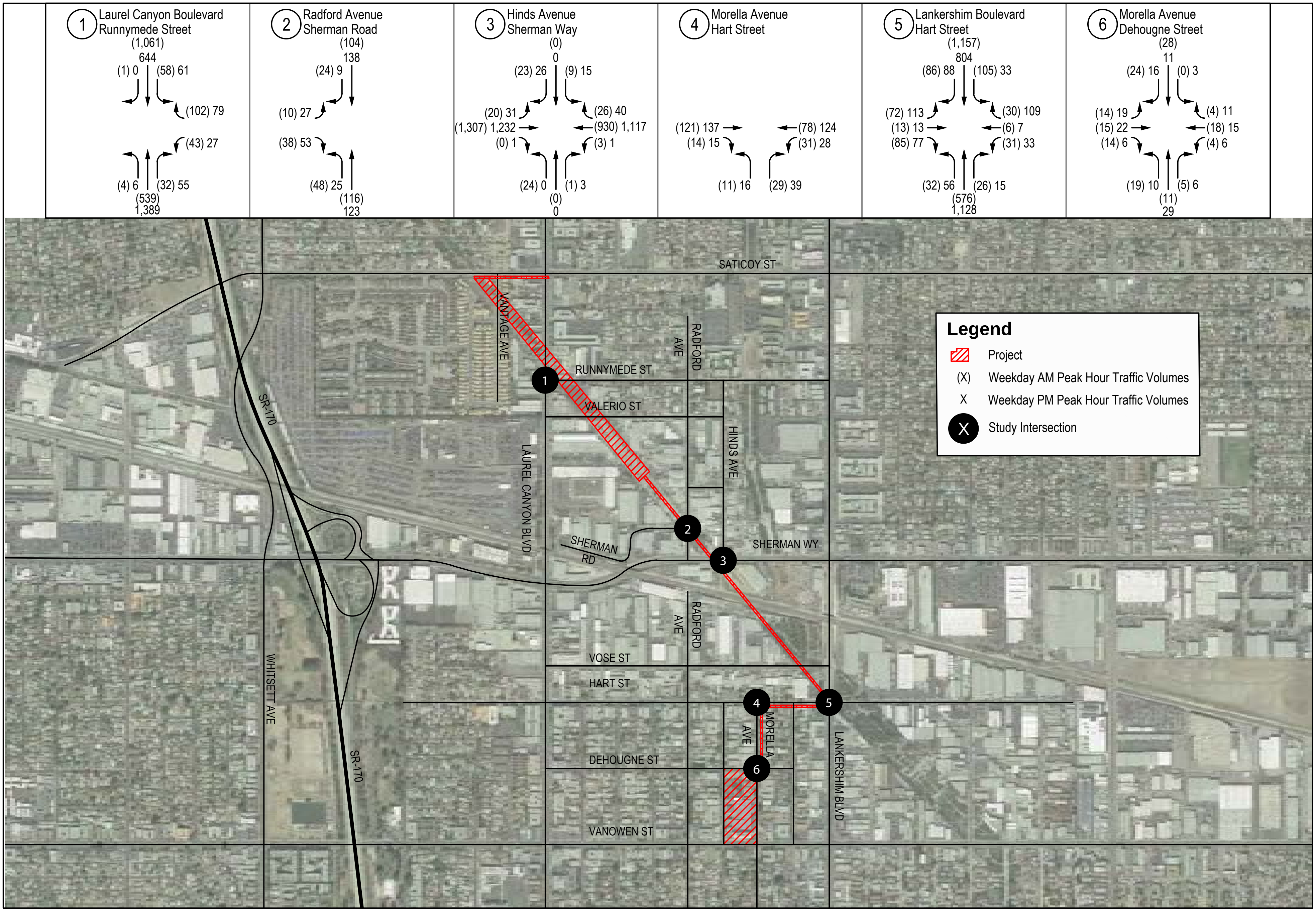
NOT TO SCALE

FIGURE 3.16-9

Existing Plus Project AM and PM Peak Hour Traffic Volumes

Proposed North Hollywood Central Groundwater Treatment Action

INTENTIONALLY LEFT BLANK



Source: Google Maps, 10/2016

LA DWP Los Angeles Department of Water & Power

NOT TO SCALE

FIGURE 3.16-10

Peak Construction (Baseline) Plus Project AM and PM Peak Hour Traffic Volumes

Proposed North Hollywood Central Groundwater Treatment Action

INTENTIONALLY LEFT BLANK

Operational Traffic Impacts

The proposed project would require the following operation and maintenance activities and few on-site personnel:

- For hydrogen peroxide storage tanks, each of the six tanks would be refilled approximately every month and would require one truck round trip (two one-way trips) (i.e., six passenger-car-equivalent trips per tank).
- The UV reactor lamps would need to be changed approximately every 20 months. Lamp replacement would require approximately one truck round-trip (two one-way trips) per day over a 1-week period (i.e., six passenger-car-equivalent trips per day for 10 days).
- The carbon medium in each of the 24 LPGAC vessels would need to be replaced about once every 3 years and spent carbon medium would be removed and transported by truck to a recycling facility. The carbon medium in one to two vessels would be replaced every week until the change-out of all vessels was completed over a 3- to 6-month period. This would require 3 workers (6 trips) and approximately 4 truck trips (24 passenger car equivalence trips) per week. (i.e., 30 trips per week for 3–6 months or 30*4 weeks per month = 120 passenger car equivalence trips per month).

Based on the previously mentioned operation and maintenance activities, the proposed project would generate an average of approximately 129 passenger car equivalence trips per month or 7 trips per day (assuming 20 workdays per month). Therefore, the proposed project would not generate a significant amount of daily trips to cause an adverse traffic impact in the study area. Impacts would be less than significant during project operations.

Table 3.16-8. Existing and Existing plus Project Peak Hour Intersection Level of Service

No.	Intersection	Control Type	LOS Method	Existing				Existing plus Project				Change in V/C		Sig. Impact	
				AM Peak		*PM Peak*		*AM Peak*		*PM Peak*		*AM Peak*	*PM Peak*	*AM Peak*	*PM Peak*
				V/C	*LOS*	*V/C*	*LOS*	*V/C*	*LOS*	*V/C*	*LOS*				
1	Laurel Canyon Blvd./ Runnymede St.	Unsignalized	CMA	0.560	A	0.729	C	0.561	A	0.733	C	Not applicable[a]			
2	Radford Ave./ Sherman Rd.	Unsignalized	CMA	0.184	A	0.206	A	0.186	A	0.208	A	Not applicable[a]			
3	Hinds Ave./Sherman Wy.	Unsignalized	CMA	0.581	A	0.538	A	0.587	A	0.541	A	Not applicable[a]			
4	Morella Ave./ Hart St.	Unsignalized	CMA	0.147	A	0.168	A	0.171	A	0.195	A	Not applicable[a]			
5	Lankershim Blvd./ Hart St.	Signal	CMA	0.390	A	0.460	A	0.394	A	0.470	A	0.004	0.010	No	No
6	Morella Ave./ Dehougne St.	Unsignalized	CMA	0.075	A	0.073	A	0.098	A	0.084	A	Not applicable[a]			

Source: Appendix D.

Notes: CMA = LADOT CMA Methodology; NA = Not Applicable; V/C = volume-to-capacity ratio; LOS = level of service

[a] Per LADOT criteria, for development projects, unsignalized intersections should be evaluated solely to determine the need for the permanent installation of a traffic signal or other traffic control device(s). However, traffic generated by the construction phase of the proposed project would be temporary and would be removed from the street network once the project is constructed. Therefore, significance impact criteria is not applicable.

Table 3.16-9. Peak Construction Baseline and Peak Construction Baseline plus Project Peak Hour Intersection Level of Service

No.	Intersection	Control Type	LOS Method	Peak Construction				Peak Construction plus Project				Change in V/C		Sig. Impact	
				AM Peak		*PM Peak*		*AM Peak*		*PM Peak*		*AM Peak*	*PM Peak*	*AM Peak*	*PM Peak*
				V/C	*LOS*	*V/C*	*LOS*	*V/C*	*LOS*	*V/C*	*LOS*				
1	Laurel Canyon Blvd./ Runnymede St.	Unsignalized	CMA	0.566	A	0.738	C	0.567	A	0.741	C	Not applicable[a]			
2.	Radford Ave./Sherman Rd.	Unsignalized	CMA	0.185	A	0.208	A	0.187	A	0.210	A	Not applicable[a]			
3	Hinds Ave./Sherman Wy.	Unsignalized	CMA	0.588	A	0.547	A	0.594	A	0.549	A	Not applicable[a]			
4	Morella Ave./Hart St.	Unsignalized	CMA	0.148	A	0.168	A	0.172	A	0.196	A	Not applicable[a]			
5	Lankershim Blvd./Hart St.	Signal	CMA	0.396	A	0.468	A	0.400	A	0.478	A	0.004	0.010	No	No
6	Morella Ave./Dehougne St.	Unsignalized	CMA	0.075	A	0.073	A	0.098	A	0.084	A	Not applicable[a]			

Source: Appendix D.

Notes: CMA = LADOT CMA Methodology; NA = Not Applicable; V/C = volume-to-capacity ratio; LOS = level of service

[a] Per LADOT criteria, for development projects, unsignalized intersections should be evaluated solely to determine the need for the permanent installation of a traffic signal or other traffic control devices. However, traffic generated by the construction phase of the proposed project would be temporary and would be removed from the street network once the project is constructed. Therefore, significance impact criteria is not applicable.

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

Less-Than-Significant Impact. Los Angeles County *Congestion Management Program* (CMP) requires evaluation of CMP arterial monitoring intersections where the project adds 50 or more new peak hour trips and/or mainline freeway monitoring location where a project adds 150 trips or more, in either direction during either the weekday AM or PM peak hours. The project study area does not contain any CMP arterial monitoring intersections. While the nearest mainline freeway monitoring location is located at SR-170 at Sherman Way, approximately one-half mile from the study area, the project would not add the requisite number of trips to create any significant impacts. Therefore, impacts would be less than significant.

Operation and maintenance activities required for the proposed project would not generate 50 or more new peak hour trips to require a CMP arterial monitoring station, and would not generate 150 or more trips to a CMP mainline freeway monitoring location. Therefore, there would be no conflicts with the Los Angeles County congestion management program and impacts would be less than significant.

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

No Impact. The nearest airport to the project site is Hollywood Burbank Airport, located approximately 1.2 miles east of the study area. The project site is located outside of the Los Angeles County Airport Influence Area for Hollywood Burbank Airport. No airport land use plans apply to the site. Further, the proposed project would not result in a change in air traffic patterns, due to an increase in traffic levels or a change in location, and no impact would occur.

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)?

Less-Than-Significant Impact. During construction, temporary staging and laydown areas for construction materials and equipment would be accommodated within the NHPS and LADWP power line corridor right-of-way. Worker vehicle parking would also be accommodated within these areas. Due to low volume of truck traffic and the fact that construction-related equipment and traffic would be located outside of the public right-of-way, there would not be a significant safety hazard to construction workers and/or the public; therefore, impacts would be less than significant.

Once operational, the maintenance of the proposed project would likely be similar in nature as currently occurring for the existing project site. Therefore, impacts would be less than significant.

e) Would the project result in inadequate emergency access?

Construction Traffic Impacts

Less-Than-Significant Impact. As previously discussed, all construction-related traffic would access the NHPS through Morella Avenue, and most of the construction activities would occur on the proposed project site, with RT Well Field work occurring within existing LADWP power line corridor. However, the proposed project would have the potential to obstruct portions of Morella Avenue and Hart Street during installation of trunk lines. These obstructions could occur intermittently for up to 5 months; however, access to residences would be maintained along Morella Avenue throughout construction.

As mentioned previously, construction would occur within Morella Avenue and RT Well Field related traffic would access the existing LADWP corridor off Runnymede Street; however, as required by the City, a Construction Traffic Management Plan would be prepared. Throughout construction, vehicular access to at least one lane in each direction would maintained. As such, construction impacts would be less than significant.

Once operational, the proposed project would not include any impediments to emergency access. Additionally, vehicular trips for maintenance and operation of the facility would be low and not cause any adverse traffic impact. Therefore, impacts to emergency access would be less than significant.

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?

Less-Than-Significant Impact. As previously discussed, NHPS and trunk line construction-related traffic would access the NHPS through Morella Avenue, and RT Well Field–related traffic would access the existing LADWP corridor off Runnymede Street. Most construction activities would occur on the project sites. There are no transit routes or bike lanes along Morella Avenue or Runnymede Street near the project site. Pedestrian access along sidewalks and residential access adjacent to the project site would be maintained at all times during construction. As such, construction impacts would be less than significant.

References

Institute of Transportation Engineers. 2017. *Trip Generation*, 10th ed. September 2017.

LADOT (City of Los Angeles Department of Transportation). 2016. City of Los Angeles Traffic Impact Guidelines, December 2016.

LADCP (Los Angeles Department of City Planning). 2017a. North Hollywood – Valley Village Subarea Circulation, February 2017. Accessed on March 23 2018.

LADCP (Los Angeles Department of City Planning). 2017b. Sun Valley – La Tuna Canyon Village Subarea Circulation, February 2017. Accessed on March 23 2018.

Los Angeles County. 2010. *Congestion Management Program*.

Los Angeles County Airport Land Use Commission. 1991. Los Angeles County Airport Land Use Plan. Adopted December 19, 1991. Revised December 1, 2004. Accessed May 3, 2016. http://planning.lacounty.gov/assets/upl/data/pd_alup.pdf.

3.17 Tribal Cultural Resources

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a) 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:				
i) 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	☐	☐	☐	☒
ii) 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 Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☒	☐	☐

a) 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:

i) 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)?

No Impact. As described under Section 3.5 of this Initial Study/MND, a CHRIS records search was conducted for the project site. No tribal cultural resources were identified as a result of the records search. In a Sacred Lands File results letter dated March 8, 2017, the NAHC stated that the Sacred

Lands File search was completed with negative results. Additionally, no tribal cultural resources have been identified by California Native American tribes as part of LADWP's Assembly Bill (AB) 52 notification and consultation process (see Section 3.17(b)(ii) for a description of this process). Therefore, the proposed project would not adversely affect tribal cultural resources that are listed or eligible for listing in the state or local register.

ii) 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 Resource 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 Incorporated. There are no resources at the project site that have been determined by the lead agency to be significant pursuant to the criteria set forth in the California Public Resources Code, Section 5024.1. Further, no specific tribal cultural resources were identified at the project site by the NAHC, California Native American tribes, or by the lead agency as part of the AB 52 notification and consultation process.

LADWP submitted a local government tribal consultation list request to the Native American Heritage Commission (NAHC) on December 28, 2017. On January 4, 2018, NAHC provided LADWP with a list of seven tribes requesting consultation. These tribes include the Fernandeno Tataviam Band of Mission Indians, the Gabrieleno Band of Mission Indians – Kizh Nation, Gabrieleno/Tongva San Gabriel Band of Mission Indians, Gabrielino/Tongva Nation, Gabrielino Tongva Indians of California Tribal Council, Gabrielino-Tongva Tribe, and the San Fernando Band of Mission Indians. LADWP sent request for consultation letters to each of these seven tribes on February 21, 2018, and followed up with each tribe in March 2018. The tribes indicated the following:

- **Fernandeño Tataviam Band of Mission Indians** – Mr. Ortega, Tribal President, indicated that they are not interested in formal consultation.
- **Gabrieleno Band of Mission Indians – Kizh Nation** – To date, Chairperson Salas has not responded to the written request for formal consultation. In a follow up, LADWP was unable to leave a voice message for Mr. Salas.
- **Gabrieleno/Tongva San Gabriel Band of Mission Indians** – Chairperson Morales requested notification if any cultural materials are found on the project site, and if monitoring is required, they would like to be involved.
- **Gabrielino/Tongva Nation** – LADWP left a voice message with Chairperson Goad; to date, no response has been received.

- **Gabrielino Tongva Indians of California Tribal Council** – Chairperson Dorame requested that the consultation letter be sent again via email. LADWP provided the letter through email on March 29, 2018; to date, no response has been received.
- **Gabrielino-Tongva Tribe** – LADWP's letter was returned with a note stating "unable to forward-refused." On March 29, 2018, LADWP left a message with Tribal Councilman Alvarez; to date, no response has been received.
- **San Fernando Band of Mission Indians** – LADWP left a voice message with Chairperson Valenzuela on March 29, 2018; to date, no response has been received.

Although no tribal cultural resources have been identified at the project site, it is always possible that intact prehistoric deposits are present at subsurface levels and could be uncovered during ground-disturbing activities. Disruption of these resources could result in a potentially significant impact. As such, MM-TCR-1 is incorporated into the proposed project as follows:

> ***MM-TCR-1: Inadvertent Discovery of Tribal Cultural Resources***
> In the event that cultural resources are inadvertently discovered, all construction work occurring within 100 feet of the find shall immediately stop. Construction activities may continue on other parts of the construction site while evaluation and treatment at the discovery site take place. If the Los Angeles Department of Water and Power determines that the resources may potentially be tribal cultural resources (as defined by Public Resources Code, Section 21074), it shall notify any Native American tribes that have informed the Los Angeles Department of Water and Power that they are traditionally and culturally affiliated with the geographic area of the proposed project. The Los Angeles Department of Water and Power would provide any affected tribe a reasonable period of time to conduct a site visit, make recommendations regarding the treatment and disposition of any discovered tribal cultural resources, and make recommendations regarding monitoring of future ground disturbance activities..

With the incorporation of MM-TCR-1 into the proposed project, potentially significant impacts would be reduced to a less-than-significant level.

References

None.

3.18 Utilities and Service Systems

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
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 storm water 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 adequate 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?	☐	☐	☐	☒

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

Less-Than-Significant Impact. During operation, the proposed remediation treatment process would produce wastewater that would be disposed of in the City's sewer collection system, and would be operated and maintained by City of Los Angeles Bureau of Sanitation (LASAN). Wastewater from the project would be discharged to existing sewer lines in Lauren Canyon Boulevard and in Lankershim Boulevard. Wastewater collected in the project site is conveyed by interceptor lines and ultimately treated at City water reclamation plants—specifically, the Los Angeles–Glendale Water Reclamation Plant and the Hyperion Water Treatment Plant.

The main sources of wastewater from the proposed project site during operation would be from well purging and LPGAC vessel backwashing and backflushing.

Because wastewater discharges associated with the proposed project would be process water discharges rather than conventional sanitary sewer discharges, the proposed project would be subject to the Industrial Waste Control Ordinance (Section 64.30 of the Los Angeles Municipal Code), and LADWP would be required to coordinate with LASAN to ensure the process wastewater is of suitable quality to be conveyed and treated at the regional water reclamation facilities. The Industrial Waste Control Ordinance requires certain dischargers of industrial wastewater to first obtain an Industrial Wastewater Permit, unless the proposed project falls under one of the exceptions outlined by LASAN. Compliance with industrial wastewater permits protects the City's sewer collection and treatment systems, prevents regulated toxic wastewater constituents from passing through to receiving waters, and ensures that applicable federal or state statutes, rules, or regulations are adhered to (LASAN 2018).

LADWP would satisfy requirements for industrial waste discharge through consultation with LASAN's Industrial Waste Management Division. Compliance with the provisions of the permit would ensure that the project would not result in violation of wastewater treatment requirements. Compliance with Section 64.30 of the Los Angeles Municipal Code, including any project-specific permit requirements that may be imposed by the Industrial Waste Management Division, would ensure that the wastewater from the proposed project would not cause exceedances of wastewater discharge requirements. Impacts would be less than significant.

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?

Less-Than-Significant Impact. The proposed project would involve construction of new water treatment facilities to remove contaminants from groundwater at the RT Well Field.

Routine operational activities would result in wastewater generation, primarily from occasional well purging and routine LPGAC vessel backwashing and backflushing. LPGAC backflushing would be required to maintain system efficiency, and each vessel would be backflushed approximately every 2 to 3 weeks on a rotating basis. This procedure would produce approximately 12,000 gallons of wastewater per vessel. In addition, approximately every 3 years, the LPGAC vessels would also require backwashing during the change-out of the carbon medium. This procedure would produce approximately 24,000 gallons of wastewater per vessel. The wastewater from backflushing and backwashing would be temporarily stored in a 60,000-gallon wastewater tank and discharged to the sewer line in Lankershim Boulevard at a rate that would not exceed the available capacity of the existing sewer line, which has been determined by LASAN to be 500 GPM. While it is not anticipated that the tank would reach capacity based on the backflushing and/or backwashing operations, at 500 GPM, a full tank could be drained in approximately 2 hours. Well purging would produce approximately 110,000 gallons of wastewater. It is not anticipated that more than one well would be purged at a time, and well purging is anticipated to be an infrequent event. The purge water would be temporarily detained in wastewater storage tanks such that it could be discharged to the sewer system at a rate that would not exceed the available capacity of the existing sewer line in Laurel Canyon Boulevard, which has been determined by LASAN to be 500 GPM. At this rate, the wastewater tanks would be emptied in about 4 hours based on 110,000 gallons from one purging operation.

Virtually no wastewater would be generated when well purging and LPGAC vessel backwashing/backflushing activities are not occurring. Consequently, it is feasible to operate the proposed project's wastewater collection and disposal system without exceeding the capacity of the existing sewer collection system.

LPGAC vessel backwashing/backflushing and well purging would result in the occasional generation of wastewater up to 110,000 gallons per day during well purging. This volume of wastewater would be minor in the context of the wastewater treatment capacities of Los Angeles–Glendale and/or Hyperion Water Reclamation Plants, which process an average of 20 million gallons of wastewater per day and 275 million gallons of wastewater per day, respectively (LASAN 2018). One well-purging event, which would occur infrequently, would represent approximately 0.61% of the wastewater that is processed daily at the Los Angeles–Glendale Water Reclamation Plant and approximately 0.04% of the wastewater that is processed daily at the Hyperion Water Reclamation Plant. One backwashing event would represent approximately 0.12% of the Los Angeles–Glendale Water Reclamation Plant's daily influent and approximately 0.009% of the Hyperion Water Reclamation Plant's daily influent. As such, the amount of wastewater produced by the proposed project would be minor relative to the amount of water that is processed at LASAN facilities. As such, the amounts of water and wastewater related to project operation activities would not require new water or wastewater treatment facilities, and impacts would be less than significant.

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

Less-Than-Significant Impact. The proposed project would not generate substantial increased stormwater runoff, such that new stormwater drainage facilities or facility expansion would be required. As described in Sections 3.9(c) and 3.9(d), the proposed project may slightly increase impervious areas on the proposed project site. However, this minor increase in impervious area would not have a substantial effect on the amount of stormwater runoff that would come from the site. Further, the proposed project would comply with the City of Los Angeles Low Impact Development Ordinance, which requires management of stormwater on site, including measures to capture and infiltrate stormwater into pervious surfaces.

The proposed project would therefore not require the construction or expansion of off-site stormwater drainage facilities, and impacts would be less than significant.

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?

Less-Than-Significant Impact. The proposed project would require approximately 24 AFY for well purging and LPGAC vessel backflushing/backwashing. This would represent approximately 0.0039% of the water supply that LADWP is anticipated to have for its service area in 2020, which is expected to be approximately 611,800 AFY during a year with average weather conditions (LADWP 2016). As such, given the nominal percentage of overall annual water consumption attributable to the proposed project, impacts would be less than significant.

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

Less-Than-Significant Impact. As described in Section 3.18(b), wastewater generated by the proposed project would be treated at the Los Angeles–Glendale Water and/or the Hyperion Water Reclamation Plants. The proposed project would generate wastewater during operations. As discussed in Section 3.18(b), the amount of wastewater generation would be minimal in the context of the wastewater treatment capacities of the existing reclamation plants. As discussed in Section 3.18(b), wastewater would be discharged from the proposed project wastewater storage tanks to the sewer system at a rate that would not exceed the available capacity of the existing sewer lines. Therefore, the proposed project would not compromise the capacity of wastewater facilities. As such, impacts would be less than significant.

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

Less-Than-Significant Impact. Construction activities would generate construction waste, such as equipment packaging, construction scrap, and debris. In accordance with the City's Construction and Demolition Debris Recycling Ordinance, construction would incorporate source reduction techniques and recycling measures and would maintain a recycling program to divert waste. These measures would minimize the amount of construction debris generated by the proposed project that would need to be disposed of in an area landfill. Any non-recyclable and hazardous construction waste generated would be disposed of at a landfill approved to accept such materials.

Project operation would result in additional sources of solid waste at the site. Approximately once every 3 years, the carbon medium in the LPGAC vessels would be replaced. The spent carbon medium would be removed and transported by truck to a recycling facility.

Approximately once every 20 months, the UV reactor lamps would be replaced. Because the lamps contain mercury, spent lamps would be temporarily stored on site in the spent UV lamp storage room and then returned to the manufacturer for recycling. This operational waste would be generated intermittently and would not involve significant waste volumes. Further, the materials would be recycled at specialized facilities and would not affect the capacities of Los Angeles County landfills. As such, impacts would be less than significant.

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

No Impact. In accordance with standards and as required by regulation and law, LADWP would comply with federal, state, and local solid waste diversion, reduction, and recycling mandates. No impact would occur.

References

LADWP (Los Angeles Department of Water and Power). 2016. *2015 Urban Water Management Plan for the Los Angeles Department of Water and Power*. Adopted June 7, 2016. Accessed April 12, 2018. www.ladwp.com/uwmp.

LASAN (Los Angeles Sanitation). 2018. “Clean Water,” “Los Angele–Glendale Water Reclamation Plant,” “Hyperion Reclamation Plant,” and “Required Permit and Reporting.” Webpage. Accessed April 11, 2018. https://www.lacitysan.org/san/faces/home/portal/s-lsh-wwd/s-lsh-wwd-cw?_ adf.ctrlstate=pqnbfcqbi_63&_afrLoop=24038877197621042#.

3.19 Mandatory Findings of Significance

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
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 a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
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)?	☐	☒	☐	☐
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

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 a 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 Incorporated. A majority of the project site is owned by LADWP and has been used for public utilities purposes for several decades (namely, groundwater pumping, electrical transmission, water treatment, and water distribution). The project site is disturbed and developed under existing conditions and is surrounded by urbanized areas. The proposed addition of water treatment equipment to the site would not degrade the quality of the environment, as it would occur on a site that is already disturbed and is already primarily used for public utilities purposes. As described in Section 3.4, no special-status plant or wildlife species are anticipated to occur within the project site. As such, special-status plants and wildlife species are not anticipated to be impacted by the proposed project activities. Nesting birds and raptors in the project site would have the potential to be disturbed by construction activities. However, nesting birds and raptors would be protected through compliance with the Migratory Bird Treaty Act and through implementation of MM-BIO-1. Therefore, the proposed project would not have the potential to 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, or reduce the number or restrict the range of a rare or endangered plant or animal. Impacts would be less than significant with mitigation incorporated.

As described in Section 3.5, the project site does not support any important examples of major periods in California history. While there are no known important examples of California prehistory on the proposed project site, there is the potential for previously unknown resources to be encountered on the site during the minor ground disturbing activities associated with construction of the proposed project. The incorporation of MM-CUL-1, MM-CUL-2, MM-CUL-3, and MM-TCR-1 into the proposed project would ensure that such resources would be protected in the event that they were unexpectedly discovered on the project site during construction. Therefore, impacts to California prehistory would be less than significant with mitigation incorporated.

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 Incorporated. A majority of the project site is owned by LADWP and has been used for public utilities purposes for several decades (namely, groundwater pumping, electrical transmission, water treatment, and water distribution). The project site is disturbed and developed under existing conditions and is surrounded by urbanized areas, including established residential neighborhoods. Because the proposed project is a public utilities project located within existing public utilities properties and roadway rights-of-way, the project would not represent a substantial change in the existing environment in the project site such that this project would combine with other existing or future development projects to create a significant impact to the environment. Due to the temporary construction period for the proposed project, the highly localized construction activities that would be involved, and the minor operational activities that would be required, proposed project activities are not expected to combine with those of other reasonably foreseeable development projects in the area to create cumulatively considerable impacts on the environment. While no significant cumulative impacts are anticipated, specific environmental categories addressed throughout this Initial Study/MND are discussed in detail in the paragraphs below with respect to cumulative impacts.

As shown in the environmental analysis in this Initial Study/MND, the proposed project was determined to have no impact in the categories of agriculture and forestry resources, mineral resources, population and housing, public services, or recreation. As such, because the project would have no impact in these categories, it would not have the potential to combine with other projects to result in cumulatively considerable impacts. As such, no cumulative impact in the categories of agricultural/forestry resources, mineral resources, population and housing, public services, or recreation would occur as a result of implementing the project.

The proposed project's effects in the categories of aesthetics, air quality, geology and soils, greenhouse gas emissions, hazards and hazardous materials, land use and planning, transportation and traffic, and utilities and service systems were determined to be less than significant, as described throughout this Initial Study/MND. While some effects are anticipated in these categories, the effects of the project would not be cumulatively considerable. In the categories of aesthetics, geology and soils, hazards and hazardous materials, and hydrology and water quality, the effects of the project would be minimal and/or highly localized, thereby precluding the project from combining with projects on other sites in the community or the region to create a cumulatively considerable effect. As explained in Section 3.1, the proposed equipment that would be installed as part of the project would be consistent with the existing appearance of the NHPS and the power line corridor, since these areas are already used for public utility purposes. As such, any minor aesthetics effects of the proposed project would not generate cumulatively considerable impacts, since the proposed project would not be a prominent feature in the visual environment with the potential to combine with other development projects to create a significant effect. Effects to geology and soils would generally be site-specific, since ground disturbance would be limited to the project site. Erosion, runoff, and sedimentation caused by construction-related ground disturbance would have the potential to combine with similar effects of nearby projects to produce a larger effect in the project vicinity. However, erosion, sedimentation, and/or runoff from the project site would be limited during both construction and operation through a variety of required erosion and runoff management practices (see Sections 3.7 and 3.9 for descriptions of these practices). These practices would limit the amount of runoff and sediment leaving the project site. As such, any erosion, runoff, or sedimentation effects associated with the proposed project would be highly localized and would be limited to the site itself to the extent feasible. Therefore, the geology, soil, and surface water quality effects of the project would not combine with similar effects of other development projects in the area to create a cumulatively considerable effect.

During operation, as explained in Section 3.12, maintenance activities and on-site personnel would be minimal to none. While the on-site equipment would require some potentially hazardous materials to operate, the operational hazardous materials use would be generally contained and confined to the project site. Hazardous materials would be contained on site or in the transport vehicles traveling to and from the site. Compliance with a variety of state and federal laws, as well as the project-specific BMPs described in Section 3.8, would minimize the potential for hazardous materials to be released from the project site. As such, hazardous materials associated with the proposed project are not anticipated to combine with those used for other development projects in the area to create a cumulatively considerable effect.

With regard to groundwater quality, the proposed project would have a beneficial impact as explained in Section 3.9. Therefore, the proposed project would not have the potential to create a cumulatively considerably negative impact on groundwater quality. While the proposed project would involve extraction of groundwater, LADWP is limited in the overall amount of groundwater that it can pump from the SFB, based on the court-defined rights that have been established for the basin. The project would not expand the pumping abilities of the RT Well Field beyond the City's existing pumping entitlements. The movement of contaminants in groundwater does have the potential to result in significant impacts associated with the movement of contaminants within the capture zone. However, in order to address potential impacts associated with the movement of contaminants, mitigation measure MM-HYD-1 is incorporated into the proposed project. This project is not anticipated to have a material effect, either alone or in conjunction with other actions on groundwater elevations over time. It is noted that groundwater elevations in the basin have historically fluctuated by more than 150 feet due to long-term precipitation patterns and other factors (ULARA Watermaster 2016). Other long-term hydrographs presented by the ULARA Watermaster (2016) provide further evidence that groundwater elevations change throughout the SFB with regularity and changes of tens of feet can occur in the same year. In addition, prior modeling studies simulated the future regional groundwater elevation patterns, including that carried out by AMEC Foster Wheeler Environment & Infrastructure, Inc. (2015) as part of the North Hollywood Operable Unit (NHOU) Second Interim Remedy (2IR) Groundwater Remediation System Design. This modeling study was carried out prior to this project and forecasts similar patterns of future groundwater flow and long-term trends in groundwater elevations relative to those forecast to exist when this project is implemented. Nonetheless, LADWP intends to monitor groundwater conditions and will be coordinating its efforts with response actions being conducted in the basin.

The air quality impact analysis for the proposed project, presented in Section 3.3., includes analysis of the project's cumulative impacts, since air pollution is largely a cumulative effect. As explained in Section 3.3(c), if a project's emissions would exceed the SCAQMD significance thresholds, it would be considered to have a cumulatively considerable contribution to air quality effects. As demonstrated in Section 3.3, project-generated construction and operational emissions would not exceed the SCAQMD significance thresholds. As such, the proposed project would not create a cumulatively considerable regional air quality effect. Additionally and as further explained in Section 3.3(c), the proposed project would not result in a localized air quality effect that is cumulatively considerable. As stated in Section 3.6(a), GHG impacts are recognized exclusively as cumulative impacts. As such, the analysis in Section 3.6 demonstrates that the proposed project's impacts relative to GHG emissions would be less than cumulatively considerable.

The transportation and traffic impact analysis for the proposed project, presented in Section 3.16, includes an analysis of the project's traffic impact upon the existing street network upon buildout of the proposed project and identified related projects. As discussed therein, traffic generated by the proposed project would not generate a significant amount of daily trips or result in significant impacts to intersections or roadway segments. As such, the analysis in Section 3.16 demonstrates that the proposed project's impact relative to traffic would be less than cumulatively considerable.

In the category of utilities and service systems, the proposed project would produce wastewater and would increase water use. However, as explained in Section 3.18(e), the proposed project would discharge wastewater to sewer lines in Lauren Canyon Boulevard and in Lankershim Boulevard at rates that would not exceed the available capacity of lines. These rates were determined by LASAN. In the event that a future related project were to generate wastewater that would discharge into the Lauren Canyon Boulevard or Lankershim Boulevard sewer lines, that project would also be required to discharge sewage at a rate that would not exceed the available capacity of the lines, as determined by LASAN. Relative to the proposed project's water use, its demand would be negligible relative to the future water supply in the LADWP service area. As such, although other development projects in the LADWP service area may lead to an overall increase in water demands, the proposed project's water demand would be minor and incremental and would not have a cumulatively considerable contribution to water use in the LADWP service area.

Without mitigation, the proposed project would have the potential to cause significant effects to biological resources, cultural resources, hydrology and water quality, noise, and tribal cultural resources. Relative to biological resources, the proposed project would have the potential to affect nesting birds during construction. However, upon the incorporation of MM-BIO-1 and MM-BIO-2 into the proposed project, these effects would be avoided. As such, with mitigation, the proposed project would not have the potential to combine with other projects in the area to create a cumulatively considerable effect on biological resources. Relative to cultural resources and tribal cultural resources, the proposed project could have a significant impact in the event that previously undiscovered cultural or tribal cultural resources were encountered during construction grading and excavation on the project site. As such, these potential effects would be confined to the project site itself and, therefore, would not combine with the effects of projects in other areas. Furthermore, upon the incorporation of MM-CUL-1, MM-CUL-2, MM-CUL-3, and MM-TCR-1 into the proposed project, any significant resources that are discovered on the project site during construction would be protected. As such, the proposed project would not contribute to adverse effects on cultural or tribal cultural resources in the area, since no such effects would occur.

In the category of noise, construction of the proposed project would have the potential to significantly affect sensitive receptors in the area. In the event that other construction projects were to occur nearby, the construction noise of the proposed project could combine with noise from other development projects in the area to produce a cumulative noise effect. However, noise levels from construction activities generally decrease at a rate of 6 dB per doubling of distance away from the activity and the identified related projects are located far enough from the project site that noise experienced by sensitive uses adjacent to the project site would not hear construction noise from these projects. As such, the cumulative effects of noise are geographically limited. MM-NOI-1 and MM-NOI-2 would be incorporated into the project and would reduce its project-specific effects to below a level of significance. These measures would also reduce the project's contribution to cumulative noise effects. Furthermore, the construction-related effects of the project and related projects would be temporary, and both the proposed project and any related construction projects would be subject to applicable noise standards (see Section 3.12 for a description of the standards applicable in the City of Los Angeles). The operational noise of the project would not substantially increase ambient noise levels in the project site. The noise levels from the equipment associated with the proposed project would be approximately 4 decibels less than the lowest measured daytime or nighttime ambient noise levels. As such, the operational noise associated with the proposed project would not be expected to combine with noise produced by related development projects in the area to create a cumulatively considerable effect. For the reasons described above, the cumulative impacts of the proposed project would be less than significant with mitigation incorporated.

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 Incorporated. The analysis presented in this document does not identify significant adverse impacts on human beings. The impacts were characterized as absent, less than significant, or less than significant with mitigation incorporated, as in the case of construction noise, which requires the incorporation of MM-NOI-1 and MM-NOI-2 into the proposed project. Therefore, after mitigation, the proposed project would not have environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly. Impacts would be less than significant with mitigation incorporated.

References

AMEC (AMEC Foster Wheeler Environment & Infrastructure Inc.). 2015. Groundwater Modeling Memorandum, North Hollywood Operable Unit, Second Interim Remedy, Groundwater Remediation System Design. Project Number: 8615180350. July 2015.

ULARA (Upper Los Angeles River Area) Watermaster. 2016. Annual Report - Upper Los Angeles River Area Watermaster, 2014-15 Water Year October 1, 2014 - September 30, 2015. December 2016.

INTENTIONALLY LEFT BLANK

4 REPORT PREPARERS

Lead Agency

Los Angeles Department of Water and Power
Environmental Affairs
111 North Hope Street, Room 1044
Los Angeles, California 90012

Charles C. Holloway, Manager of Environmental Planning and Assessment
Nadia Parker, Environmental Supervisor
Jane Hauptman, Project Manager

Technical Assistance Provided By
Dudek
38 North Marengo Avenue
Pasadena, California 91101

Contributors

Eric Wilson, Principal
Nicole Cobleigh, Project Manager
Michele Webb, Environmental Analyst
Jennifer Reed, Project Manager, Air Quality and Greenhouse Gases
Matthew Morales, Air Quality and Greenhouse Gases Specialist
Mike Greene, INCE, Noise Specialist/Acoustician
Dylan Duvergé, Hydrologist/Water Quality Specialist
Perry Russell, Geologist
Samantha Murray, RPA, Archaeologist/Architectural Historian
Elizabeth Denniston, Archaeologist
Dennis Pascua, Transportation Services Manager
Mladen Popovic, Transportation Planner
Kirsten Zecher, GIS
Raoul Rañoa, Senior Designer
Devin Brookhart, Publications Specialist Lead
Taylor Eaton, Publications Specialist
David Mueller, Publications Specialist
Jeffrey Fenner, Environmental Consultant

INTENTIONALLY LEFT BLANK

APPENDIX A

Air Quality

APPENDIX A AIR QUALITY

Emissions Estimation Calculations

Emissions from the construction phase of the project were estimated using a spreadsheet-based model and emissions factors from the CARB Mobile Source Emissions Inventory Model (EMFAC, version 2017), CARB Off-Road Emissions Inventory Model (OFFROAD, version 2011) as incorporated into the California Emissions Estimator Model (CalEEMod, version 2016.3.2), and EPA AP-42 factors. Emission calculation equations and assumptions were primarily derived from CalEEMod.

A summary of the emissions calculation methodology is provided below for off-road equipment, on-road vehicle travel, and fugitive dust associated with earthwork and material handling.

Equipment Emissions

Off-road mobile equipment exhaust emissions were calculated using the following equation:

$$Emissions_{diesel} = \Sigma\ EF_i \times Pop_i \times AvgHP \times Load_i \times Activity_i$$

Where:

EF = *Emission factor in grams per horse-power hour*
Pop = *Population, or the number of pieces of equipment*
$AvgHP$ = *Maximum rated average horsepower*
$Load$ = *Load factor*
$Activity$ = *Hours of operation*
i = *Equipment type*

A pound per hour emissions rate was generated for each piece of equipment for each year of construction based on the equipment-specific emission factor (in grams per brake-horsepower-hour), the average equipment horsepower, and average load factor, [1] derived from the CalEEMod 2016.3.2 database, which incorporates OFFROAD2011 factors.

Vehicle Emissions

Exhaust

The emissions factors for trucks and worker vehicles were determined using CARB's motor vehicle emissions inventory program, EMFAC2017. EMFAC2017 can generate emissions

---

[1] The load factor is the ratio of the actual output to the maximum output of a piece of equipment. The load factor is equipment type-specific and does not vary with horsepower (hp) (e.g., the load factors of a 125-hp dozer and a 500-hp dozer are the same).

factors, expressed in grams per mile, for the fleet in a class of motor vehicles within a county for a particular study year. For this analysis, the South Coast portion of Los Angeles County and calendar years 2019, 2020, and 2021 were selected. Vehicle emission factors accounted for speeds of 25 to 65 miles per hour (mph) and aggregated model years.

A composite, or weighted-average, emissions factor was developed for project vehicle types if more than one vehicle category in EMFAC is anticipated to be representative of the project vehicle. The composite emissions factor represents the weighted average emissions rate of the South Coast portion of Los Angeles County vehicle fleet, which was weighted based on vehicle miles traveled (VMT) by speed-bin in the EMFAC inventory. Vehicle emission factors were developed for haul trucks, which reflect a composite of heavy-heavy duty trucks and medium-heavy duty trucks, and for worker vehicles, which are based on a composite of light-duty automobiles and light-duty trucks. The vehicle exhaust emission factors developed for each project vehicle were then multiplied by the VMT for each trip to estimate exhaust emissions associated with vehicle travel to and from the site. Each truck and worker was estimated to generate two one-way trips (one round-trip). Although it is reasonable to assume that not all worker trips would drive separately to the site, this analysis conservatively assumes single-occupancy-vehicle worker trips. The average distance traveled by each truck was assumed to be 20 miles per one-way trip, and the average distance traveled by each worker was assumed to be 15 miles per one-way trip.

Vehicle emissions were calculated using the following equation:

$$Emissions_{pollutant} = VMT \times EF_{running,pollutant}$$

Where:

$Emissions_{pollutant}$ = *Emissions from vehicle running for each pollutant*

VMT = *Vehicle miles traveled*

$EF_{running,pollutant}$ = *Emission factor for running emissions*

__Brake and Tire Wear__

Brake and tire wear PM_{10} and $PM_{2.5}$ emissions are calculated based on the EMFAC2017 emission factors for each vehicle class and the total VMT traveled by that vehicle class as presented in the following equation:

$$Emissions_{brakewearortirewear} = \Sigma_{class} \, (EF_{brakewearortirewear,class} \times VMT_{class})$$

Where:

$Emissions_{brakewearortirewear}$ = *Emissions from brake wear or tire wear*

Σ_{class} = *Sum for vehicle class*

$EF_{brakewearortirewear,class}$ = *Emission factor for brake wear or tire wear per vehicle* *class*

VMT = *Vehicle miles traveled per vehicle class*

The VMT assumed is the same used for vehicle trips. Brake and tire wear PM_{10} and $PM_{2.5}$ emissions were estimated in the vehicle emissions spreadsheet model and added to other vehicle sources of PM_{10} and $PM_{2.5}$ (i.e., exhaust and paved road dust) to present total PM_{10} and $PM_{2.5}$ associated with truck and worker trips.

Paved Road Dust

The following equation was used to calculate the fugitive dust emissions associated with construction trucks and worker vehicles traveling on paved roads:

$$Emissions_{dust,particle} = \Sigma_{particle} (EF_{dust,particle} \times VMT)$$

Where:

$Emissions_{dust,particle}$ = *Emissions from paved road dust for particle size range (PM_{10} or $PM_{2.5}$)*

$\Sigma_{particle}$ = *Sum for that particle size range*

$EF_{dust,particle}$ = *Emission factor for paved road dust*

VMT = *Vehicle miles traveled per vehicle class*

Paved road PM_{10} and $PM_{2.5}$ emissions were added to exhaust and brake and tire wear PM_{10} and $PM_{2.5}$ emissions to present total vehicle-related PM_{10} and $PM_{2.5}$ emissions.

Earthwork and Material Handling Activities

Fugitive PM_{10} and $PM_{2.5}$ emissions associated with earthwork and material handling activities were estimated based on equations and factors included in CalEEMod. Total material handling volumes were provided by LADWP. Daily disturbed area for the project was based on the operation of two dozers during the clearing and fine grading phases of construction, assuming each dozer would pass over 0.5 acre in an 8-hour work day based on the CalEEMod default. It is assumed that the particulate emissions from the earthwork activities would be controlled by watering of the active dust areas three times per day, depending on weather conditions, per SCAQMD Rule 403. Accordingly, emission factors for controlled sources were used for emission estimates.

The PM_{10} and $PM_{2.5}$ emissions from earthwork activities were calculated using the following equations:

$$E_{PM10} = = (0.051 \text{ x } (S)^\wedge 2.0 \text{ x } F_{PM10}) \text{ x } (As/Wb \text{ x } 43{,}560/5{,}280)$$

Where:

$E_{PM_{10}}$ = *PM_{10} emissions from ground disturbance (pounds of PM_{10})*
S = *Mean vehicle speed (mph); AP-42 default value is 7.1*
$F_{PM_{10}}$ = *PM_{10} scaling factor; AP-42 default value is 0.6*
As = *Acreage of the grading site*
Wb = *Blade width of grading equipment; CalEEMod default is 12 feet*

$E_{PM_{2.5}}$ = = (0.051 x (S)^2.5 x $F_{PM_{2.5}}$) x (As/Wb x 43,560/5,280)

Where:

$E_{PM_{2.5}}$ = *$PM_{2.5}$ emissions from ground disturbance (pounds of $PM_{2.5}$)*
S = *Mean vehicle speed (mph); AP-42 default value is 7.1*
$F_{PM_{2.5}}$ = *$PM_{2.5}$ scaling factor; AP-42 default value is 0.031*
As = *Acreage of the grading site*
Wb = *Blade width of grading equipment; CalEEMod default is 12 feet*

The PM_{10} and $PM_{2.5}$ emissions from material handling activities were calculated using the following equation:

E = k(0.0032)*(((U/5)^1.3)/((M/2)^1.4))*TP*

Where:

E = *Particulate emissions (in pounds) from truck loading/unloading*
k = *Particle size multiplier; AP-42 default value is 0.35 for PM_{10} and 0.053 for $PM_{2.5}$*
U = *Mean wind speed (mph); default for LA County is 2.2 meter/sec = 4.9 mph*
M = *Material moisture content; CalEEMod uses 12% (moisture content of cover) as default*
TP = *Material throughput (tons)*

LADWP North Hollywood Central Treatment Project
Total Construction Emissions

	Daily Emissions (lb/day)									Monthly Emissions (tons/month)										Daily Onsite Emissions (lb/day)				Daily Offsite Emissions (lb/day)			
	ROG	NOx	CO	SOx	PM10	PM2.5	CO2	CH4	N2O	ROG	NOx	CO	SOx	PM10	PM2.5	CO2	CH4	N2O	CO2E	NOx	CO	PM10	PM2.5	NOx	CO	PM10	PM2.5
JANUARY 2019																											
Offroad Equipment	0.94	10.40	6.72	0.01	0.40	0.37	1495.13	0.29	0.13	0.00	0.01	0.00	0.00	0.00	0.00	1.17	0.00	0.00	1.20	10.40	6.72	0.40	0.37				
Vehicles	0.04	0.48	1.04	0.00	0.06	0.03	393.67	0.02	0.03	0.00	0.00	0.01	0.00	0.00	0.00	3.70	0.00	0.00	3.77					0.48	1.04	0.06	0.03
Earth Moving	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–				
JANUARY 2019	**0.98**	**10.88**	**7.76**	**0.02**	**0.46**	**0.40**	**1888.79**	**0.31**	**0.16**	**0.00**	**0.01**	**0.01**	**0.00**	**0.00**	**0.00**	**4.87**	**0.00**	**0.00**	**4.96**	**10.40**	**6.72**	**0.40**	**0.37**	**0.48**	**1.04**	**0.06**	**0.03**
FEBRUARY 2019																											
Offroad Equipment	5.88	61.02	30.48	0.08	2.35	2.17	7851.36	2.45	1.10	0.02	0.19	0.09	0.00	0.01	0.01	27.09	0.01	0.00	28.43	61.02	30.48	2.35	2.17				
Vehicles	0.16	3.34	1.83	0.01	0.20	0.12	1339.28	0.03	0.16	0.00	0.03	0.02	0.00	0.00	0.00	12.22	0.00	0.00	12.65					3.34	1.83	0.20	0.12
Earth Moving	–	–	–	–	0.44	0.06	–	–	–	–	–	–	–	0.00	0.00	–	–	–	–	–	–	0.44	0.06				
FEBRUARY 2019	**6.05**	**64.36**	**32.31**	**0.09**	**2.99**	**2.34**	**9190.64**	**2.48**	**1.26**	**0.02**	**0.22**	**0.11**	**0.00**	**0.01**	**0.01**	**39.31**	**0.01**	**0.01**	**41.08**	**61.02**	**30.48**	**2.79**	**2.23**	**3.34**	**1.83**	**0.20**	**0.12**
MARCH 2019																											
Offroad Equipment	4.75	47.96	25.20	0.06	1.93	1.78	6144.47	1.94	0.87	0.02	0.16	0.10	0.00	0.01	0.01	24.01	0.01	0.00	25.22	47.96	25.20	1.93	1.78				
Vehicles	0.11	1.77	2.20	0.01	0.15	0.08	1027.44	0.04	0.09	0.00	0.02	0.02	0.00	0.00	0.00	9.50	0.00	0.00	9.74					1.77	2.20	0.15	0.08
Earth Moving	–	–	–	–	0.47	0.07	–	–	–	–	–	–	–	0.00	0.00	–	–	–	–	–	–	0.47	0.07				
MARCH 2019	**4.86**	**49.73**	**27.39**	**0.07**	**2.56**	**1.92**	**7171.91**	**1.99**	**0.96**	**0.02**	**0.18**	**0.12**	**0.00**	**0.01**	**0.01**	**33.52**	**0.01**	**0.00**	**34.96**	**47.96**	**25.20**	**2.40**	**1.84**	**1.77**	**2.20**	**0.15**	**0.08**
APRIL 2019																											
Offroad Equipment	5.13	52.60	27.41	0.07	2.07	1.90	6957.06	2.19	0.98	0.04	0.36	0.20	0.00	0.01	0.01	48.38	0.02	0.01	50.81	52.60	27.41	2.07	1.90				
Vehicles	0.19	3.09	3.80	0.02	0.27	0.14	1787.50	0.08	0.15	0.00	0.03	0.04	0.00	0.00	0.00	16.92	0.00	0.00	17.37					3.09	3.80	0.27	0.14
Earth Moving	–	–	–	–	0.48	0.07	–	–	–	–	–	–	–	0.00	0.00	–	–	–	–	–	–	0.48	0.07				
APRIL 2019	**5.32**	**55.69**	**31.22**	**0.09**	**2.82**	**2.11**	**8744.55**	**2.27**	**1.14**	**0.04**	**0.38**	**0.24**	**0.00**	**0.02**	**0.02**	**65.31**	**0.02**	**0.01**	**68.18**	**52.60**	**27.41**	**2.55**	**1.97**	**3.09**	**3.80**	**0.27**	**0.14**
MAY 2019																											
Offroad Equipment	5.13	52.60	27.41	0.07	2.07	1.90	6957.06	2.19	0.98	0.04	0.38	0.20	0.00	0.02	0.01	50.01	0.02	0.01	52.52	52.60	27.41	2.07	1.90				
Vehicles	0.21	3.16	4.71	0.02	0.31	0.16	2040.06	0.09	0.16	0.00	0.03	0.05	0.00	0.00	0.00	19.63	0.00	0.00	20.10					3.16	4.71	0.31	0.16
Earth Moving	–	–	–	–	0.52	0.07	–	–	–	–	–	–	–	0.01	0.00	–	–	–	–	–	–	0.52	0.07				
MAY 2019	**5.34**	**55.76**	**32.12**	**0.09**	**2.90**	**2.13**	**8997.12**	**2.29**	**1.14**	**0.04**	**0.41**	**0.25**	**0.00**	**0.02**	**0.02**	**69.64**	**0.02**	**0.01**	**72.61**	**52.60**	**27.41**	**2.59**	**1.98**	**3.16**	**4.71**	**0.31**	**0.16**
JUNE 2019																											
Offroad Equipment	4.75	47.96	25.20	0.06	1.93	1.78	6144.47	1.94	0.87	0.02	0.23	0.12	0.00	0.01	0.01	29.24	0.01	0.00	30.70	47.96	25.20	1.93	1.78				
Vehicles	0.16	1.94	4.45	0.02	0.25	0.12	1658.85	0.09	0.10	0.00	0.02	0.04	0.00	0.00	0.00	16.10	0.00	0.00	16.42					1.94	4.45	0.25	0.12
Earth Moving	–	–	–	–	0.05	0.01	–	–	–	–	–	–	–	0.00	0.00	–	–	–	–	–	–	0.05	0.01				
JUNE 2019	**4.91**	**49.91**	**29.65**	**0.08**	**2.24**	**1.91**	**7803.32**	**2.04**	**0.98**	**0.02**	**0.24**	**0.17**	**0.00**	**0.01**	**0.01**	**45.33**	**0.01**	**0.01**	**47.12**	**47.96**	**25.20**	**1.99**	**1.79**	**1.94**	**4.45**	**0.25**	**0.12**
JULY 2019																											
Offroad Equipment	4.75	47.96	25.20	0.06	1.93	1.78	6144.47	1.94	0.87	0.04	0.41	0.20	0.00	0.02	0.01	52.69	0.02	0.01	55.33	47.96	25.20	1.93	1.78				
Vehicles	0.18	2.01	5.28	0.02	0.28	0.13	1890.36	0.11	0.11	0.00	0.02	0.05	0.00	0.00	0.00	18.40	0.00	0.00	18.74					2.01	5.28	0.28	0.13
Earth Moving	–	–	–	–	0.05	0.01	–	–	–	–	–	–	–	0.00	0.00	–	–	–	–	–	–	0.05	0.01				
JULY 2019	**4.93**	**49.97**	**30.47**	**0.08**	**2.27**	**1.92**	**8034.84**	**2.05**	**0.98**	**0.04**	**0.43**	**0.26**	**0.00**	**0.02**	**0.02**	**71.09**	**0.02**	**0.01**	**74.07**	**47.96**	**25.20**	**1.99**	**1.79**	**2.01**	**5.28**	**0.28**	**0.13**
AUGUST 2019																											
Offroad Equipment	4.75	47.96	25.20	0.06	1.93	1.78	6144.47	1.94	0.87	0.04	0.41	0.20	0.00	0.02	0.01	53.03	0.02	0.01	55.69	47.96	25.20	1.93	1.78				
Vehicles	0.17	1.97	4.75	0.02	0.26	0.13	1743.04	0.10	0.11	0.00	0.02	0.05	0.00	0.00	0.00	17.13	0.00	0.00	17.46					1.97	4.75	0.26	0.13
Earth Moving	–	–	–	–	0.06	0.01	–	–	–	–	–	–	–	0.00	0.00	–	–	–	–	–	–	0.06	0.01				
AUGUST 2019	**4.92**	**49.93**	**29.95**	**0.08**	**2.25**	**1.91**	**7887.51**	**2.04**	**0.98**	**0.04**	**0.43**	**0.25**	**0.00**	**0.02**	**0.02**	**70.16**	**0.02**	**0.01**	**73.15**	**47.96**	**25.20**	**1.99**	**1.79**	**1.97**	**4.75**	**0.26**	**0.13**
SEPTEMBER 2019																											
Offroad Equipment	4.75	47.96	25.20	0.06	1.93	1.78	6144.47	1.94	0.87	0.03	0.30	0.15	0.00	0.01	0.01	38.90	0.01	0.01	40.85	47.96	25.20	1.93	1.78				
Vehicles	0.15	1.90	3.85	0.01	0.22	0.11	1490.47	0.08	0.10	0.00	0.02	0.04	0.00	0.00	0.00	14.44	0.00	0.00	14.74					1.90	3.85	0.22	0.11
Earth Moving	–	–	–	–	0.06	0.01	–	–	–	–	–	–	–	0.00	0.00	–	–	–	–	–	–	0.06	0.01				
SEPTEMBER 2019	**4.90**	**49.86**	**29.05**	**0.08**	**2.21**	**1.90**	**7634.95**	**2.02**	**0.97**	**0.03**	**0.32**	**0.19**	**0.00**	**0.01**	**0.01**	**53.34**	**0.01**	**0.01**	**55.59**	**47.96**	**25.20**	**1.99**	**1.79**	**1.90**	**3.85**	**0.22**	**0.11**
OCTOBER 2019																											
Offroad Equipment	5.77	57.53	31.48	0.07	2.36	2.19	7373.13	2.17	0.97	0.02	0.18	0.11	0.00	0.01	0.01	22.35	0.01	0.00	23.34	57.53	31.48	2.36	2.19				
Vehicles	0.22	3.56	4.62	0.02	0.32	0.16	2118.02	0.09	0.18	0.00	0.04	0.05	0.00	0.00	0.00	21.00	0.00	0.00	21.56					3.56	4.62	0.32	0.16
Earth Moving	–	–	–	–	0.01	0.00	–	–	–	–	–	–	–	0.00	0.00	–	–	–	–	–	–	0.01	0.00				
OCTOBER 2019	**5.99**	**61.09**	**36.10**	**0.10**	**2.69**	**2.35**	**9491.15**	**2.26**	**1.15**	**0.02**	**0.21**	**0.15**	**0.00**	**0.01**	**0.01**	**43.35**	**0.01**	**0.00**	**44.89**	**57.53**	**31.48**	**2.37**	**2.19**	**3.56**	**4.62**	**0.32**	**0.16**

LADWP North Hollywood Central Treatment Project
Total Construction Emissions

	Daily Emissions (lb/day)									Monthly Emissions (tons/month)										Daily Onsite Emissions (lb/day)				Daily Offsite Emissions (lb/day)			
	ROG	NOx	CO	SOx	PM10	PM2.5	CO2	CH4	N2O	ROG	NOx	CO	SOx	PM10	PM2.5	CO2	CH4	N2O	CO2E	NOx	CO	PM10	PM2.5	NOx	CO	PM10	PM2.5
NOVEMBER 2019																											
Offroad Equipment	5.77	57.53	31.48	0.07	2.36	2.19	7373.13	2.17	0.97	0.02	0.18	0.11	0.00	0.01	0.01	22.23	0.01	0.00	23.22	57.53	31.48	2.36	2.19				
Vehicles	0.22	3.53	4.24	0.02	0.30	0.16	2012.78	0.08	0.18	0.00	0.04	0.04	0.00	0.00	0.00	19.98	0.00	0.00	20.53					3.53	4.24	0.30	0.16
Earth Moving	–	–	–	–	0.01	0.00	–	–	–	–	–	–	–	0.00	0.00	–	–	–	–	–	–	0.01	0.00				
NOVEMBER 2019	**5.98**	**61.06**	**35.72**	**0.09**	**2.68**	**2.35**	**9385.91**	**2.25**	**1.15**	**0.02**	**0.21**	**0.15**	**0.00**	**0.01**	**0.01**	**42.21**	**0.01**	**0.00**	**43.74**	**57.53**	**31.48**	**2.37**	**2.19**	**3.53**	**4.24**	**0.30**	**0.16**
DECEMBER 2019																											
Offroad Equipment	5.77	57.53	31.48	0.07	2.36	2.19	7373.13	2.17	0.97	0.02	0.16	0.10	0.00	0.01	0.01	20.59	0.01	0.00	21.49	57.53	31.48	2.36	2.19				
Vehicles	0.22	3.53	4.32	0.02	0.31	0.16	2033.83	0.09	0.18	0.00	0.04	0.04	0.00	0.00	0.00	20.16	0.00	0.00	20.71					3.53	4.32	0.31	0.16
Earth Moving	–	–	–	–	0.01	0.00	–	–	–	–	–	–	–	0.00	0.00	–	–	–	–	–	–	0.01	0.00				
DECEMBER 2019	**5.99**	**61.06**	**35.80**	**0.09**	**2.68**	**2.35**	**9406.96**	**2.26**	**1.15**	**0.02**	**0.20**	**0.14**	**0.00**	**0.01**	**0.01**	**40.75**	**0.01**	**0.00**	**42.20**	**57.53**	**31.48**	**2.37**	**2.19**	**3.53**	**4.32**	**0.31**	**0.16**
MAXIMUM DAILY - Equipment	**5.88**	**61.02**	**31.48**	**0.08**	**2.36**	**2.19**	**7851.36**	**2.45**	**1.10**											**61.02**	**31.48**	**2.36**	**2.19**	**0.00**	**0.00**	**0.00**	**0.00**
MAXIMUM DAILY - Vehicles	**0.22**	**3.56**	**5.28**	**0.02**	**0.32**	**0.16**	**2118.02**	**0.11**	**0.18**											**0.00**	**0.00**	**0.00**	**0.00**	**3.56**	**5.28**	**0.32**	**0.16**
MAXIMUM DAILY - Earth Moving	**0.00**	**0.00**	**0.00**	**0.00**	**0.52**	**0.07**	**0.00**	**0.00**	**0.00**											**0.00**	**0.00**	**0.52**	**0.07**	**0.00**	**0.00**	**0.00**	**0.00**
ANNUAL SUMMARY - MAXIMUM DAILY	**6.05**	**64.36**	**36.10**	**0.10**	**2.99**	**2.35**	**9491.15**	**2.48**	**1.26**											**61.02**	**31.48**	**2.79**	**2.23**	**3.56**	**5.28**	**0.32**	**0.16**
ANNUAL TOTAL - TONS										**0.31**	**3.25**	**2.05**	**0.01**	**0.17**	**0.13**	**578.89**	**0.13**	**0.07**	**602.56**								
ANNUAL TOTAL - METRIC TONS																**638.12**	**0.14**	**0.08**	**664.21**								

LADWP North Hollywood Central Treatment Project
Total Construction Emissions

	Daily Emissions (lb/day)									Monthly Emissions (tons/month)										Daily Onsite Emissions (lb/day)				Daily Offsite Emissions (lb/day)			
	ROG	NOx	CO	SOx	PM10	PM2.5	CO2	CH4	N2O	ROG	NOx	CO	SOx	PM10	PM2.5	CO2	CH4	N2O	CO2E	NOx	CO	PM10	PM2.5	NOx	CO	PM10	PM2.5
JANUARY 2020																											
Offroad Equipment	5.77	57.53	31.48	0.07	2.36	2.19	7373.13	2.17	0.97	0.02	0.24	0.14	0.00	0.01	0.01	29.78	0.01	0.00	31.14	57.53	31.48	2.36	2.19				
Vehicles	0.26	4.38	4.96	0.02	0.37	0.19	2421.27	0.10	0.22	0.00	0.04	0.05	0.00	0.00	0.00	24.12	0.00	0.00	24.79					4.38	4.96	0.37	0.19
Earth Moving	–	–	–	–	0.02	0.00	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0.02	0.00				
JANUARY 2020	**6.03**	**61.91**	**36.44**	**0.10**	**2.75**	**2.38**	**9794.40**	**2.27**	**1.19**	**0.03**	**0.28**	**0.19**	**0.00**	**0.01**	**0.01**	**53.90**	**0.01**	**0.01**	**55.94**	**57.53**	**31.48**	**2.38**	**2.19**	**4.38**	**4.96**	**0.37**	**0.19**
FEBRUARY 2020																											
Offroad Equipment	5.77	57.53	31.48	0.07	2.36	2.19	7373.13	2.17	0.97	0.02	0.24	0.14	0.00	0.01	0.01	29.78	0.01	0.00	31.14	57.53	31.48	2.36	2.19				
Vehicles	0.26	4.37	4.74	0.02	0.36	0.19	2358.13	0.09	0.22	0.00	0.04	0.05	0.00	0.00	0.00	23.50	0.00	0.00	24.17					4.37	4.74	0.36	0.19
Earth Moving	–	–	–	–	0.02	0.00	–	–	–	–	–	–	–	0.00	0.00	–	–	–	–	–	–	0.02	0.00				
FEBRUARY 2020	**6.03**	**61.90**	**36.22**	**0.10**	**2.74**	**2.38**	**9731.26**	**2.26**	**1.19**	**0.03**	**0.28**	**0.18**	**0.00**	**0.01**	**0.01**	**53.28**	**0.01**	**0.01**	**55.31**	**57.53**	**31.48**	**2.38**	**2.19**	**4.37**	**4.74**	**0.36**	**0.19**
MARCH 2020																											
Offroad Equipment	5.77	57.53	31.48	0.07	2.36	2.19	7373.13	2.17	0.97	0.02	0.24	0.14	0.00	0.01	0.01	29.78	0.01	0.00	31.14	57.53	31.48	2.36	2.19				
Vehicles	0.27	4.40	5.11	0.02	0.37	0.19	2463.36	0.10	0.22	0.00	0.04	0.05	0.00	0.00	0.00	24.56	0.00	0.00	25.24					4.40	5.11	0.37	0.19
Earth Moving	–	–	–	–	0.02	0.00	–	–	–	–	–	–	–	0.00	0.00	–	–	–	–	–	–	0.02	0.00				
MARCH 2020	**6.03**	**61.93**	**36.59**	**0.10**	**2.76**	**2.39**	**9836.49**	**2.27**	**1.19**	**0.03**	**0.28**	**0.19**	**0.00**	**0.01**	**0.01**	**54.34**	**0.01**	**0.01**	**56.38**	**57.53**	**31.48**	**2.38**	**2.19**	**4.40**	**5.11**	**0.37**	**0.19**
APRIL 2020																											
Offroad Equipment	5.26	53.66	27.49	0.07	2.15	1.98	6715.65	2.12	0.95	0.02	0.22	0.12	0.00	0.01	0.01	26.37	0.01	0.00	27.70	53.66	27.49	2.15	1.98				
Vehicles	0.20	2.79	5.02	0.02	0.30	0.15	2025.24	0.10	0.14	0.00	0.03	0.05	0.00	0.00	0.00	19.75	0.00	0.00	20.19					2.79	5.02	0.30	0.15
Earth Moving	–	–	–	–	0.02	0.00	–	–	–	–	–	–	–	0.00	0.00	–	–	–	–	–	–	0.02	0.00				
APRIL 2020	**5.46**	**56.45**	**32.51**	**0.09**	**2.48**	**2.13**	**8740.89**	**2.23**	**1.10**	**0.02**	**0.24**	**0.17**	**0.00**	**0.01**	**0.01**	**46.13**	**0.01**	**0.01**	**47.89**	**53.66**	**27.49**	**2.17**	**1.98**	**2.79**	**5.02**	**0.30**	**0.15**
MAY 2020																											
Offroad Equipment	5.26	53.66	27.49	0.07	2.15	1.98	6715.65	2.12	0.95	0.02	0.22	0.12	0.00	0.01	0.01	26.37	0.01	0.00	27.70	53.66	27.49	2.15	1.98				
Vehicles	0.23	3.22	5.38	0.02	0.34	0.17	2229.48	0.11	0.17	0.00	0.03	0.05	0.00	0.00	0.00	21.31	0.00	0.00	21.79					3.22	5.38	0.34	0.17
Earth Moving	–	–	–	–	0.02	0.00	–	–	–	–	–	–	–	0.00	0.00	–	–	–	–	–	–	0.02	0.00				
MAY 2020	**5.48**	**56.88**	**32.87**	**0.09**	**2.51**	**2.15**	**8945.13**	**2.23**	**1.12**	**0.02**	**0.24**	**0.17**	**0.00**	**0.01**	**0.01**	**47.69**	**0.01**	**0.01**	**49.49**	**53.66**	**27.49**	**2.17**	**1.98**	**3.22**	**5.38**	**0.34**	**0.17**
JUNE 2020																											
Offroad Equipment	5.76	59.35	29.78	0.07	2.37	2.18	7286.83	2.31	1.03	0.03	0.31	0.16	0.00	0.01	0.01	36.80	0.01	0.01	38.65	59.35	29.78	2.37	2.18				
Vehicles	0.23	3.25	5.76	0.02	0.35	0.17	2334.72	0.12	0.17	0.00	0.03	0.06	0.00	0.00	0.00	22.42	0.00	0.00	22.90					3.25	5.76	0.35	0.17
Earth Moving	–	–	–	–	0.02	0.00	–	–	–	–	–	–	–	0.00	0.00	–	–	–	–	–	–	0.02	0.00				
JUNE 2020	**6.00**	**62.60**	**35.54**	**0.10**	**2.74**	**2.35**	**9621.55**	**2.42**	**1.20**	**0.03**	**0.34**	**0.22**	**0.00**	**0.02**	**0.01**	**59.22**	**0.01**	**0.01**	**61.55**	**59.35**	**29.78**	**2.39**	**2.18**	**3.25**	**5.76**	**0.35**	**0.17**
JULY 2020																											
Offroad Equipment	5.76	59.35	29.78	0.07	2.37	2.18	7286.83	2.31	1.03	0.03	0.31	0.16	0.00	0.01	0.01	36.80	0.01	0.01	38.65	59.35	29.78	2.37	2.18				
Vehicles	0.21	3.16	4.71	0.02	0.31	0.16	2040.06	0.09	0.16	0.00	0.03	0.05	0.00	0.00	0.00	19.76	0.00	0.00	20.23					3.16	4.71	0.31	0.16
Earth Moving	–	–	–	–	0.02	0.00	–	–	–	–	–	–	–	0.00	0.00	–	–	–	–	–	–	0.02	0.00				
JULY 2020	**5.97**	**62.52**	**34.49**	**0.09**	**2.70**	**2.34**	**9326.89**	**2.40**	**1.19**	**0.03**	**0.34**	**0.20**	**0.00**	**0.02**	**0.01**	**56.56**	**0.01**	**0.01**	**58.88**	**59.35**	**29.78**	**2.39**	**2.18**	**3.16**	**4.71**	**0.31**	**0.16**
AUGUST 2020																											
Offroad Equipment	5.26	53.66	27.49	0.07	2.15	1.98	6715.65	2.12	0.95	0.02	0.22	0.12	0.00	0.01	0.01	26.37	0.01	0.00	27.70	53.66	27.49	2.15	1.98				
Vehicles	0.18	3.04	3.13	0.02	0.24	0.13	1598.07	0.06	0.15	0.00	0.03	0.03	0.00	0.00	0.00	15.06	0.00	0.00	15.48					3.04	3.13	0.24	0.13
Earth Moving	–	–	–	–	0.02	0.00	–	–	–	–	–	–	–	0.00	0.00	–	–	–	–	–	–	0.02	0.00				
AUGUST 2020	**5.43**	**56.70**	**30.62**	**0.08**	**2.41**	**2.11**	**8313.72**	**2.19**	**1.10**	**0.02**	**0.24**	**0.15**	**0.00**	**0.01**	**0.01**	**41.43**	**0.01**	**0.01**	**43.18**	**53.66**	**27.49**	**2.17**	**1.98**	**3.04**	**3.13**	**0.24**	**0.13**
SEPTEMBER 2020																											
Offroad Equipment	5.26	53.66	27.49	0.07	2.15	1.98	6715.65	2.12	0.95	0.02	0.22	0.12	0.00	0.01	0.01	26.37	0.01	0.00	27.70	53.66	27.49	2.15	1.98				
Vehicles	0.16	2.63	2.92	0.01	0.22	0.11	1435.92	0.06	0.13	0.00	0.03	0.03	0.00	0.00	0.00	13.92	0.00	0.00	14.31					2.63	2.92	0.22	0.11
Earth Moving	–	–	–	–	0.02	0.00	–	–	–	–	–	–	–	0.00	0.00	–	–	–	–	–	–	0.02	0.00				
SEPTEMBER 2020	**5.41**	**56.28**	**30.41**	**0.08**	**2.39**	**2.09**	**8151.58**	**2.18**	**1.08**	**0.02**	**0.24**	**0.14**	**0.00**	**0.01**	**0.01**	**40.30**	**0.01**	**0.00**	**42.01**	**53.66**	**27.49**	**2.17**	**1.98**	**2.63**	**2.92**	**0.22**	**0.11**
OCTOBER 2020																											
Offroad Equipment	5.26	53.66	27.49	0.07	2.15	1.98	6715.65	2.12	0.95	0.01	0.14	0.08	0.00	0.01	0.01	17.18	0.01	0.00	18.04	53.66	27.49	2.15	1.98				
Vehicles	0.15	2.59	2.47	0.01	0.20	0.11	1309.64	0.05	0.13	0.00	0.02	0.02	0.00	0.00	0.00	12.80	0.00	0.00	13.17					2.59	2.47	0.20	0.11
Earth Moving	–	–	–	–	0.01	0.00	–	–	–	–	–	–	–	0.00	0.00	–	–	–	–	–	–	0.01	0.00				
OCTOBER 2020	**5.40**	**56.25**	**29.95**	**0.08**	**2.36**	**2.08**	**8025.29**	**2.17**	**1.08**	**0.02**	**0.17**	**0.10**	**0.00**	**0.01**	**0.01**	**29.98**	**0.01**	**0.00**	**31.22**	**53.66**	**27.49**	**2.16**	**1.98**	**2.59**	**2.47**	**0.20**	**0.11**

LADWP North Hollywood Central Treatment Project
Total Construction Emissions

	Daily Emissions (lb/day)									Monthly Emissions (tons/month)										Daily Onsite Emissions (lb/day)				Daily Offsite Emissions (lb/day)			
	ROG	NOx	CO	SOx	PM10	PM2.5	CO2	CH4	N2O	ROG	NOx	CO	SOx	PM10	PM2.5	CO2	CH4	N2O	CO2E	NOx	CO	PM10	PM2.5	NOx	CO	PM10	PM2.5
NOVEMBER 2020																											
Offroad Equipment	5.26	53.66	27.49	0.07	2.15	1.98	6715.65	2.12	0.95	0.01	0.10	0.05	0.00	0.00	0.00	11.48	0.00	0.00	12.05	53.66	27.49	2.15	1.98				
Vehicles	0.09	1.34	1.83	0.01	0.12	0.06	823.20	0.04	0.07	0.00	0.01	0.02	0.00	0.00	0.00	7.80	0.00	0.00	7.99					1.34	1.83	0.12	0.06
Earth Moving	–	–	–	–	0.01	0.00	–	–	–	–	–	–	–	0.00	0.00	–	–	–	–	–	–	0.01	0.00				
NOVEMBER 2020	**5.34**	**55.00**	**29.32**	**0.08**	**2.28**	**2.04**	**7538.85**	**2.16**	**1.02**	**0.01**	**0.11**	**0.07**	**0.00**	**0.01**	**0.00**	**19.27**	**0.00**	**0.00**	**20.04**	**53.66**	**27.49**	**2.16**	**1.98**	**1.34**	**1.83**	**0.12**	**0.06**
DECEMBER 2020																											
Offroad Equipment	5.26	53.66	27.49	0.07	2.15	1.98	6715.65	2.12	0.95	0.01	0.10	0.05	0.00	0.00	0.00	11.48	0.00	0.00	12.05	53.66	27.49	2.15	1.98				
Vehicles	0.08	1.33	1.68	0.01	0.12	0.06	781.10	0.03	0.07	0.00	0.01	0.02	0.00	0.00	0.00	7.37	0.00	0.00	7.57					1.33	1.68	0.12	0.06
Earth Moving	–	–	–	–	0.01	0.00	–	–	–	–	–	–	–	0.00	0.00	–	–	–	–	–	–	0.01	0.00				
DECEMBER 2020	**5.34**	**54.99**	**29.17**	**0.08**	**2.28**	**2.04**	**7496.75**	**2.16**	**1.02**	**0.01**	**0.11**	**0.07**	**0.00**	**0.01**	**0.00**	**18.85**	**0.00**	**0.00**	**19.62**	**53.66**	**27.49**	**2.16**	**1.98**	**1.33**	**1.68**	**0.12**	**0.06**
MAXIMUM DAILY - Equipment	**5.77**	**59.35**	**31.48**	**0.07**	**2.37**	**2.19**	**7373.13**	**2.31**	**1.03**											**59.35**	**31.48**	**2.37**	**2.19**	**0.00**	**0.00**	**0.00**	**0.00**
MAXIMUM DAILY - Vehicles	**0.27**	**4.40**	**5.76**	**0.02**	**0.37**	**0.19**	**2463.36**	**0.12**	**0.22**											**0.00**	**0.00**	**0.00**	**0.00**	**4.40**	**5.76**	**0.37**	**0.19**
MAXIMUM DAILY - Earth Moving	**0.00**	**0.00**	**0.00**	**0.00**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**											**0.00**	**0.00**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
ANNUAL SUMMARY - MAXIMUM DAILY	**6.03**	**62.60**	**36.59**	**0.10**	**2.76**	**2.39**	**9836.49**	**2.42**	**1.20**											**59.35**	**31.48**	**2.39**	**2.19**	**4.40**	**5.76**	**0.37**	**0.19**
ANNUAL TOTAL - TONS										**0.27**	**2.88**	**1.85**	**0.01**	**0.14**	**0.11**	**520.95**	**0.10**	**0.06**	**541.50**								
ANNUAL TOTAL - METRIC TONS																**574.25**	**0.12**	**0.07**	**596.90**								

LADWP North Hollywood Central Treatment Project
Total Construction Emissions

	Daily Emissions (lb/day)									Monthly Emissions (tons/month)										Daily Onsite Emissions (lb/day)				Daily Offsite Emissions (lb/day)			
	ROG	**NOx**	**CO**	**SOx**	**PM10**	**PM2.5**	**CO2**	**CH4**	**N2O**	**ROG**	**NOx**	**CO**	**SOx**	**PM10**	**PM2.5**	**CO2**	**CH4**	**N2O**	**CO2E**	**NOx**	**CO**	**PM10**	**PM2.5**	**NOx**	**CO**	**PM10**	**PM2.5**
JANUARY 2021																											
Offroad Equipment	0.50	5.69	2.29	0.01	0.22	0.20	571.18	0.18	0.08	0.01	0.06	0.02	0.00	0.00	0.00	5.71	0.00	0.00	6.00	5.69	2.29	0.22	0.20				
Vehicles	0.04	0.48	1.04	0.00	0.06	0.03	393.67	0.02	0.03	0.00	0.00	0.01	0.00	0.00	0.00	3.56	0.00	0.00	3.63					0.48	1.04	0.06	0.03
Earth Moving	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–				
JANUARY 2021	**0.54**	**6.17**	**3.33**	**0.01**	**0.28**	**0.23**	**964.84**	**0.20**	**0.11**	**0.01**	**0.06**	**0.03**	**0.00**	**0.00**	**0.00**	**9.27**	**0.00**	**0.00**	**9.63**	**5.69**	**2.29**	**0.22**	**0.20**	**0.48**	**1.04**	**0.06**	**0.03**
FEBRUARY 2021																											
Offroad Equipment	0.50	5.69	2.29	0.01	0.22	0.20	571.18	0.18	0.08	0.01	0.06	0.02	0.00	0.00	0.00	5.71	0.00	0.00	6.00	5.69	2.29	0.22	0.20				
Vehicles	0.04	0.48	1.04	0.00	0.06	0.03	393.67	0.02	0.03	0.00	0.00	0.01	0.00	0.00	0.00	3.56	0.00	0.00	3.63					0.48	1.04	0.06	0.03
Earth Moving	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–				
FEBRUARY 2021	**0.54**	**6.17**	**3.33**	**0.01**	**0.28**	**0.23**	**964.84**	**0.20**	**0.11**	**0.01**	**0.06**	**0.03**	**0.00**	**0.00**	**0.00**	**9.27**	**0.00**	**0.00**	**9.63**	**5.69**	**2.29**	**0.22**	**0.20**	**0.48**	**1.04**	**0.06**	**0.03**
MARCH 2021																											
Offroad Equipment	0.50	5.69	2.29	0.01	0.22	0.20	571.18	0.18	0.08	0.01	0.06	0.02	0.00	0.00	0.00	5.71	0.00	0.00	6.00	5.69	2.29	0.22	0.20				
Vehicles	0.04	0.48	1.04	0.00	0.06	0.03	393.67	0.02	0.03	0.00	0.00	0.01	0.00	0.00	0.00	3.56	0.00	0.00	3.63					0.48	1.04	0.06	0.03
Earth Moving	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–				
MARCH 2021	**0.54**	**6.17**	**3.33**	**0.01**	**0.28**	**0.23**	**964.84**	**0.20**	**0.11**	**0.01**	**0.06**	**0.03**	**0.00**	**0.00**	**0.00**	**9.27**	**0.00**	**0.00**	**9.63**	**5.69**	**2.29**	**0.22**	**0.20**	**0.48**	**1.04**	**0.06**	**0.03**
APRIL 2021																											
Offroad Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
Vehicles	0.02	0.06	0.75	0.00	0.03	0.01	210.47	0.02	0.01	0.00	0.00	0.01	0.00	0.00	0.00	2.10	0.00	0.00	2.12					0.06	0.75	0.03	0.01
Earth Moving	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–				
APRIL 2021	**0.02**	**0.06**	**0.75**	**0.00**	**0.03**	**0.01**	**210.47**	**0.02**	**0.01**	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**2.10**	**0.00**	**0.00**	**2.12**	**0.00**	**0.00**	**0.00**	**0.00**	**0.06**	**0.75**	**0.03**	**0.01**
MAY 2021																											
Offroad Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
Vehicles	0.02	0.06	0.75	0.00	0.03	0.01	210.47	0.02	0.01	0.00	0.00	0.01	0.00	0.00	0.00	2.10	0.00	0.00	2.12					0.06	0.75	0.03	0.01
Earth Moving	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–				
MAY 2021	**0.02**	**0.06**	**0.75**	**0.00**	**0.03**	**0.01**	**210.47**	**0.02**	**0.01**	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**2.10**	**0.00**	**0.00**	**2.12**	**0.00**	**0.00**	**0.00**	**0.00**	**0.06**	**0.75**	**0.03**	**0.01**
JUNE 2021																											
Offroad Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
Vehicles	0.02	0.06	0.75	0.00	0.03	0.01	210.47	0.02	0.01	0.00	0.00	0.01	0.00	0.00	0.00	2.10	0.00	0.00	2.12					0.06	0.75	0.03	0.01
Earth Moving	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–				
JUNE 2021	**0.02**	**0.06**	**0.75**	**0.00**	**0.03**	**0.01**	**210.47**	**0.02**	**0.01**	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**2.10**	**0.00**	**0.00**	**2.12**	**0.00**	**0.00**	**0.00**	**0.00**	**0.06**	**0.75**	**0.03**	**0.01**
MAXIMUM DAILY - Equipment	**0.50**	**5.69**	**2.29**	**0.01**	**0.22**	**0.20**	**571.18**	**0.18**	**0.08**											**5.69**	**2.29**	**0.22**	**0.20**	**0.00**	**0.00**	**0.00**	**0.00**
MAXIMUM DAILY - Vehicles	**0.04**	**0.48**	**1.04**	**0.00**	**0.06**	**0.03**	**393.67**	**0.02**	**0.03**											**0.00**	**0.00**	**0.00**	**0.00**	**0.48**	**1.04**	**0.06**	**0.03**
MAXIMUM DAILY - Earth Moving	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**											**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
ANNUAL SUMMARY - MAXIMUM DAILY	**0.54**	**6.17**	**3.33**	**0.01**	**0.28**	**0.23**	**964.84**	**0.20**	**0.11**											**5.69**	**2.29**	**0.22**	**0.20**	**0.48**	**1.04**	**0.06**	**0.03**
ANNUAL TOTAL - TONS										**0.02**	**0.18**	**0.12**	**0.00**	**0.01**	**0.01**	**34.14**	**0.01**	**0.00**	**35.25**								
ANNUAL TOTAL - METRIC TONS																**37.63**	**0.01**	**0.00**	**38.86**								

LADWP North Hollywood Central Treatment Project
Construction Equipment Emissions Summary

	Daily Emissions (lb/day)									Monthly Emissions (tons/month)									
	ROG	NOx	CO	SOx	PM10	PM2.5	CO2	CH4	N2O	ROG	NOx	CO	SOx	PM10	PM2.5	CO2	CH4	N2O	CO2E
2019																			
JANUARY 2019	0.94	10.40	6.72	0.01	0.40	0.37	1495.13	0.29	0.13	0.00	0.01	0.00	0.00	0.00	0.00	1.17	0.00	0.00	1.20
FEBRUARY 2019	5.88	61.02	30.48	0.08	2.35	2.17	7851.36	2.45	1.10	0.02	0.19	0.09	0.00	0.01	0.01	27.09	0.01	0.00	28.43
MARCH 2019	4.75	47.96	25.20	0.06	1.93	1.78	6144.47	1.94	0.87	0.02	0.16	0.10	0.00	0.01	0.01	24.01	0.01	0.00	25.22
APRIL 2019	5.13	52.60	27.41	0.07	2.07	1.90	6957.06	2.19	0.98	0.04	0.36	0.20	0.00	0.01	0.01	48.38	0.02	0.01	50.81
MAY 2019	5.13	52.60	27.41	0.07	2.07	1.90	6957.06	2.19	0.98	0.04	0.38	0.20	0.00	0.02	0.01	50.01	0.02	0.01	52.52
JUNE 2019	4.75	47.96	25.20	0.06	1.93	1.78	6144.47	1.94	0.87	0.02	0.23	0.12	0.00	0.01	0.01	29.24	0.01	0.00	30.70
JULY 2019	4.75	47.96	25.20	0.06	1.93	1.78	6144.47	1.94	0.87	0.04	0.41	0.20	0.00	0.02	0.01	52.69	0.02	0.01	55.33
AUGUST 2019	4.75	47.96	25.20	0.06	1.93	1.78	6144.47	1.94	0.87	0.04	0.41	0.20	0.00	0.02	0.01	53.03	0.02	0.01	55.69
SEPTEMBER 2019	4.75	47.96	25.20	0.06	1.93	1.78	6144.47	1.94	0.87	0.03	0.30	0.15	0.00	0.01	0.01	38.90	0.01	0.01	40.85
OCTOBER 2019	5.77	57.53	31.48	0.07	2.36	2.19	7373.13	2.17	0.97	0.02	0.18	0.11	0.00	0.01	0.01	22.35	0.01	0.00	23.34
NOVEMBER 2019	5.77	57.53	31.48	0.07	2.36	2.19	7373.13	2.17	0.97	0.02	0.18	0.11	0.00	0.01	0.01	22.23	0.01	0.00	23.22
DECEMBER 2019	5.77	57.53	31.48	0.07	2.36	2.19	7373.13	2.17	0.97	0.02	0.16	0.10	0.00	0.01	0.01	20.59	0.01	0.00	21.49
2020																			
JANUARY 2020	5.77	57.53	31.48	0.07	2.36	2.19	7373.13	2.17	0.97	0.02	0.24	0.14	0.00	0.01	0.01	29.78	0.01	0.00	31.14
FEBRUARY 2020	5.77	57.53	31.48	0.07	2.36	2.19	7373.13	2.17	0.97	0.02	0.24	0.14	0.00	0.01	0.01	29.78	0.01	0.00	31.14
MARCH 2020	5.77	57.53	31.48	0.07	2.36	2.19	7373.13	2.17	0.97	0.02	0.24	0.14	0.00	0.01	0.01	29.78	0.01	0.00	31.14
APRIL 2020	5.26	53.66	27.49	0.07	2.15	1.98	6715.65	2.12	0.95	0.02	0.22	0.12	0.00	0.01	0.01	26.37	0.01	0.00	27.70
MAY 2020	5.26	53.66	27.49	0.07	2.15	1.98	6715.65	2.12	0.95	0.02	0.22	0.12	0.00	0.01	0.01	26.37	0.01	0.00	27.70
JUNE 2020	5.76	59.35	29.78	0.07	2.37	2.18	7286.83	2.31	1.03	0.03	0.31	0.16	0.00	0.01	0.01	36.80	0.01	0.01	38.65
JULY 2020	5.76	59.35	29.78	0.07	2.37	2.18	7286.83	2.31	1.03	0.03	0.31	0.16	0.00	0.01	0.01	36.80	0.01	0.01	38.65
AUGUST 2020	5.26	53.66	27.49	0.07	2.15	1.98	6715.65	2.12	0.95	0.02	0.22	0.12	0.00	0.01	0.01	26.37	0.01	0.00	27.70
SEPTEMBER 2020	5.26	53.66	27.49	0.07	2.15	1.98	6715.65	2.12	0.95	0.02	0.22	0.12	0.00	0.01	0.01	26.37	0.01	0.00	27.70
OCTOBER 2020	5.26	53.66	27.49	0.07	2.15	1.98	6715.65	2.12	0.95	0.01	0.14	0.08	0.00	0.01	0.01	17.18	0.01	0.00	18.04
NOVEMBER 2020	5.26	53.66	27.49	0.07	2.15	1.98	6715.65	2.12	0.95	0.01	0.10	0.05	0.00	0.00	0.00	11.48	0.00	0.00	12.05
DECEMBER 2020	5.26	53.66	27.49	0.07	2.15	1.98	6715.65	2.12	0.95	0.01	0.10	0.05	0.00	0.00	0.00	11.48	0.00	0.00	12.05
2021																			
JANUARY 2021	0.50	5.69	2.29	0.01	0.22	0.20	571.18	0.18	0.08	0.01	0.06	0.02	0.00	0.00	0.00	5.71	0.00	0.00	6.00
FEBRUARY 2021	0.50	5.69	2.29	0.01	0.22	0.20	571.18	0.18	0.08	0.01	0.06	0.02	0.00	0.00	0.00	5.71	0.00	0.00	6.00
MARCH 2021	0.50	5.69	2.29	0.01	0.22	0.20	571.18	0.18	0.08	0.01	0.06	0.02	0.00	0.00	0.00	5.71	0.00	0.00	6.00
APRIL 2021	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MAY 2021	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JUNE 2021	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

SUMMARY - MAXIMUM DAILY	**5.88**	**61.02**	**31.48**	**0.08**	**2.37**	**2.19**	**7851.36**	**2.45**	**1.10**										
TOTAL - TONS										**0.55**	**5.68**	**3.05**	**0.01**	**0.23**	**0.21**	**715.42**	**0.22**	**0.10**	**750.46**
TOTAL - METRIC TONS																**788.61**	**0.24**	**0.11**	**827.24**

LADWP North Hollywood Central Treatment Project
Estimated Construction Equipment Operation

		Op Hrs	Max Op Hrs	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21
20 WD/Mo	Qty*	Per WD	Per Mo	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Brush Chipper, 130 H.P.	1	8.0	8	8																													
Crawler Loader, 3 C.Y.	1	8.0	28		28																												
Chain Saws (gas)	1	8.0	56		56																												
Stump Chipper	1	8.0	8	8																													
Bull Dozer, 200 H.P.	2	8.0	278		69	65	201	215	118	272	278	201	49	49	40	85	85	85	85	85	108	108	85	85	40	20	20						
Front end loader, wheel mounted, 3 C.Y. bucket	2	8.0	345		119	45	167	287	220	345	340	236	69	67	55	117	117	117	117	117	149	149	117	117	55	28	28						
Dump Truck, 12 C.Y., 400 H.P.	2	8.0	286		147	179	286	252	118	272	278	201	49	49	40	85	85	85	85	85	108	108	85	85	40	20	20						
Sheepsft Roll. 240 H.P.	1	8.0	80		80		14	13																									
Backhoe Loader	3	8.0	480		88	253	480	441	314	285	274	247	232	230	227	289	289	289	289	289	321	321	289	289	227	114	114						
Concrete Pump	1	8.0	79										79	79	79	79	79	79															
Gas Engine Vibrator	1	8.0	158										158	158	158	158	158	158															
Rammer Tamper	1	8.0	80		80		14	13																									
S.P. Crane, 4x4, 12 Ton	1	8.0	160										160	160	160	160	160	160			160	160	160	160	160	160	160	160	160	160			
Lattice Boom Crane	1	8.0	160																160	160	160	160											
Water Truck, 3000 gallon	1	8.0	20	20	20	20	20	20																									
	Total Hours Per Month			36	687	562	1,183	1,240	770	1,174	1,170	885	795	791	758	972	972	972	736	736	1,006	1,006	736	736	522	342	342	160	160	160	0	0	0
	Avg. Hours Per Day/Month			1.8	34.4	28.1	59.1	62.0	38.5	58.7	58.5	44.3	39.8	39.6	37.9	48.6	48.6	48.6	36.8	36.8	50.3	50.3	36.8	36.8	26.1	17.1	17.1	8.0	8.0	8.0	0.0	0.0	0.0
	Avg. Daily Equip.			0.2	4.3	3.5	7.4	7.8	4.8	7.3	7.3	5.5	5.0	4.9	4.7	6.1	6.1	6.1	4.6	4.6	6.3	6.3	4.6	4.6	3.3	2.1	2.1	1.0	1.0	1.0	0.0	0.0	0.0

LADWP North Hollywood Central Treatment Project
Off-Road Equipment Emission Factors

Equipment - Project-Specific Name	Equipment - OFFROAD Category	Year	HP	HP - Bin Max	Load Factor	Emission Factors (g-HP/hr)									Hourly Emission Rates (lb/hr)								
						ROG	NOx	CO	SOx	PM10	PM2.5	CO2	CH4	N2O	ROG	NOx	CO	SOx	PM10	PM2.5	CO2	CH4	N2O
Year 2019																							
Brush Chipper, 130 H.P.	Other Construction Equipment	2019	130	175	0.42	0.412	4.433	3.256	0.005	0.233	0.215	480.452	0.152	0.068	0.050	0.506	0.392	0.001	0.024	0.022	57.830	0.018	0.008
Crawler Loader, 3 C.Y.	Crawler Tractors	2019	212	250	0.43	0.380	4.972	1.604	0.005	0.187	0.172	483.449	0.153	0.069	0.076	0.947	0.322	0.001	0.032	0.030	97.155	0.031	0.014
Chain Saws (gas)	Concrete/Industrial Saws	2019	16	25	0.73	0.685	4.332	2.339	0.007	0.161	0.161	568.299	0.061	0.027	0.018	0.106	0.060	0.000	0.004	0.004	14.633	0.002	0.001
Stump Chipper	Other Construction Equipment	2019	130	175	0.42	0.412	4.433	3.256	0.005	0.233	0.215	480.452	0.152	0.068	0.050	0.506	0.392	0.001	0.024	0.022	57.830	0.018	0.008
Bull Dozer, 200 H.P.	Rubber Tired Dozers	2019	200	250	0.40	0.651	6.929	2.459	0.005	0.338	0.311	485.172	0.154	0.069	0.115	1.158	0.434	0.001	0.051	0.047	85.565	0.027	0.012
Front end loader, wheel mounted, 3 C.Y. b	Rubber Tired Loaders	2019	203	250	0.36	0.309	3.745	1.302	0.005	0.126	0.116	480.100	0.152	0.068	0.050	0.572	0.210	0.001	0.017	0.016	77.346	0.024	0.011
Dump Truck, 12 C.Y., 400 H.P.	Off-Highway Trucks	2019	400	500	0.3819	0.263	2.669	1.483	0.005	0.097	0.089	485.383	0.154	0.069	0.089	0.852	0.500	0.002	0.028	0.026	163.457	0.052	0.023
Sheepsft Roll. 240 H.P.	Rollers	2019	240	250	0.38	0.210	2.883	1.249	0.005	0.092	0.084	483.777	0.153	0.069	0.042	0.550	0.251	0.001	0.016	0.014	97.264	0.031	0.014
Backhoe Loader	Tractors/Loaders/Backhoes	2019	97	120	0.37	0.368	3.693	3.638	0.005	0.247	0.227	485.855	0.154	0.069	0.029	0.277	0.288	0.000	0.017	0.015	38.441	0.012	0.005
Concrete Pump	Pumps	2019	84	120	0.74	0.429	3.497	3.449	0.006	0.217	0.217	568.299	0.038	0.017	0.059	0.454	0.473	0.001	0.025	0.025	77.875	0.005	0.002
Gas Engine Vibrator	Plate Compactors	2019	8	15	0.43	0.661	4.142	3.469	0.008	0.161	0.161	568.299	0.059	0.026	0.005	0.030	0.026	0.000	0.001	0.001	4.310	0.000	0.000
Rammer Tamper	Plate Compactors	2019	8	15	0.43	0.661	4.142	3.469	0.008	0.161	0.161	568.299	0.059	0.026	0.005	0.030	0.026	0.000	0.001	0.001	4.310	0.000	0.000
S.P. Crane, 4x4, 12 Ton	Cranes	2019	231	250	0.29	0.427	5.084	1.941	0.005	0.216	0.198	483.462	0.153	0.069	0.063	0.712	0.287	0.001	0.027	0.025	71.397	0.023	0.010
Lattice Boom Crane	Cranes	2019	231	250	0.29	0.427	5.084	1.941	0.005	0.216	0.198	483.462	0.153	0.069	0.063	0.712	0.287	0.001	0.027	0.025	71.397	0.023	0.010
Year 2020																							
Brush Chipper, 130 H.P.	Other Construction Equipment	2020	130	175	0.42	0.388	4.112	3.235	0.005	0.217	0.200	469.984	0.152	0.068	0.047	0.469	0.389	0.001	0.022	0.020	56.570	0.018	0.008
Crawler Loader, 3 C.Y.	Crawler Tractors	2020	212	250	0.43	0.360	4.632	1.555	0.005	0.175	0.161	472.941	0.153	0.069	0.072	0.882	0.312	0.001	0.030	0.027	95.043	0.031	0.014
Chain Saws (gas)	Concrete/Industrial Saws	2020	16	25	0.73	0.685	4.332	2.339	0.007	0.161	0.161	568.299	0.061	0.027	0.018	0.106	0.060	0.000	0.004	0.004	14.633	0.002	0.001
Stump Chipper	Other Construction Equipment	2020	130	175	0.42	0.388	4.112	3.235	0.005	0.217	0.200	469.984	0.152	0.068	0.047	0.469	0.389	0.001	0.022	0.020	56.570	0.018	0.008
Bull Dozer, 200 H.P.	Rubber Tired Dozers	2020	200	250	0.40	0.619	6.503	2.371	0.005	0.318	0.293	474.793	0.154	0.069	0.109	1.087	0.418	0.001	0.048	0.044	83.734	0.027	0.012
Front end loader, wheel mounted, 3 C.Y. b	Rubber Tired Loaders	2020	203	250	0.36	0.290	3.421	1.269	0.005	0.114	0.104	469.513	0.152	0.068	0.047	0.523	0.204	0.001	0.016	0.014	75.641	0.024	0.011
Dump Truck, 12 C.Y., 400 H.P.	Off-Highway Trucks	2020	400	500	0.3819	0.246	2.347	1.414	0.005	0.086	0.079	474.579	0.153	0.069	0.083	0.749	0.476	0.002	0.025	0.023	159.819	0.052	0.023
Sheepsft Roll. 240 H.P.	Rollers	2020	240	250	0.38	0.209	2.751	1.253	0.005	0.089	0.082	473.367	0.153	0.069	0.042	0.524	0.252	0.001	0.015	0.014	95.171	0.031	0.014
Backhoe Loader	Tractors/Loaders/Backhoes	2020	97	120	0.37	0.331	3.326	3.601	0.005	0.210	0.193	475.154	0.154	0.069	0.026	0.249	0.285	0.000	0.014	0.013	37.594	0.012	0.005
Concrete Pump	Pumps	2020	84	120	0.74	0.386	3.219	3.432	0.006	0.189	0.189	568.299	0.034	0.015	0.053	0.418	0.470	0.001	0.022	0.022	77.875	0.005	0.002
Gas Engine Vibrator	Plate Compactors	2020	8	15	0.43	0.661	4.142	3.469	0.008	0.161	0.161	568.299	0.059	0.026	0.005	0.030	0.026	0.000	0.001	0.001	4.310	0.000	0.000
Rammer Tamper	Plate Compactors	2020	8	15	0.43	0.661	4.142	3.469	0.008	0.161	0.161	568.299	0.059	0.026	0.005	0.030	0.026	0.000	0.001	0.001	4.310	0.000	0.000
S.P. Crane, 4x4, 12 Ton	Cranes	2020	231	250	0.29	0.384	4.563	1.790	0.005	0.188	0.173	472.949	0.153	0.069	0.057	0.639	0.264	0.001	0.024	0.022	69.845	0.023	0.010
Lattice Boom Crane	Cranes	2020	231	250	0.29	0.384	4.563	1.790	0.005	0.188	0.173	472.949	0.153	0.069	0.057	0.639	0.264	0.001	0.024	0.022	69.845	0.023	0.010
Year 2021																							
Brush Chipper, 130 H.P.	Other Construction Equipment	2021	130	175	0.42	0.330	3.438	3.183	0.005	0.180	0.165	469.764	0.152	0.068	0.040	0.392	0.383	0.001	0.018	0.017	56.543	0.018	0.008
Crawler Loader, 3 C.Y.	Crawler Tractors	2021	212	250	0.43	0.343	4.334	1.515	0.005	0.163	0.150	472.925	0.153	0.069	0.069	0.826	0.304	0.001	0.028	0.026	95.040	0.031	0.014
Chain Saws (gas)	Concrete/Industrial Saws	2021	16	25	0.73	0.685	4.332	2.340	0.007	0.161	0.161	568.299	0.061	0.027	0.018	0.106	0.060	0.000	0.004	0.004	14.633	0.002	0.001
Stump Chipper	Other Construction Equipment	2021	130	175	0.42	0.330	3.438	3.183	0.005	0.180	0.165	469.764	0.152	0.068	0.040	0.392	0.383	0.001	0.018	0.017	56.543	0.018	0.008
Bull Dozer, 200 H.P.	Rubber Tired Dozers	2021	200	250	0.40	0.600	6.296	2.317	0.005	0.306	0.281	474.798	0.154	0.069	0.106	1.053	0.409	0.001	0.046	0.042	83.735	0.027	0.012
Front end loader, wheel mounted, 3 C.Y. b	Rubber Tired Loaders	2021	203	250	0.36	0.266	2.998	1.240	0.005	0.100	0.092	469.564	0.152	0.068	0.043	0.458	0.200	0.001	0.014	0.013	75.649	0.024	0.011
Dump Truck, 12 C.Y., 400 H.P.	Excavators	2021	400	500	0.3819	0.143	1.332	1.088	0.005	0.045	0.041	469.616	0.152	0.068	0.048	0.425	0.366	0.002	0.013	0.012	158.147	0.051	0.023
Sheepsft Roll. 240 H.P.	Rollers	2021	240	250	0.38	0.196	2.493	1.228	0.005	0.081	0.075	473.470	0.153	0.069	0.040	0.475	0.247	0.001	0.014	0.013	95.191	0.031	0.014
Backhoe Loader	Tractors/Loaders/Backhoes	2021	97	120	0.37	0.296	2.995	3.571	0.005	0.177	0.162	475.362	0.154	0.069	0.023	0.225	0.283	0.000	0.012	0.011	37.610	0.012	0.005
Concrete Pump	Pumps	2021	84	120	0.74	0.347	2.928	3.412	0.006	0.162	0.162	568.300	0.031	0.014	0.048	0.380	0.468	0.001	0.019	0.019	77.875	0.004	0.002
Gas Engine Vibrator	Plate Compactors	2021	8	15	0.43	0.661	4.142	3.469	0.008	0.161	0.161	568.299	0.059	0.026	0.005	0.030	0.026	0.000	0.001	0.001	4.310	0.000	0.000
Rammer Tamper	Plate Compactors	2021	8	15	0.43	0.661	4.142	3.469	0.008	0.161	0.161	568.299	0.059	0.026	0.005	0.030	0.026	0.000	0.001	0.001	4.310	0.000	0.000
S.P. Crane, 4x4, 12 Ton	Cranes	2021	231	250	0.29	0.349	4.104	1.678	0.005	0.167	0.153	472.906	0.153	0.069	0.052	0.575	0.248	0.001	0.021	0.019	69.838	0.023	0.010
Lattice Boom Crane	Cranes	2021	231	250	0.29	0.349	4.104	1.678	0.005	0.167	0.153	472.906	0.153	0.069	0.052	0.575	0.248	0.001	0.021	0.019	69.838	0.023	0.010

Equipment - Project-Specific Name	Vehicle - EMFAC Category	Year	Speed (MPH)	Miles Traveled in 1-hr	Fuel	Emission Factors (grams/mile)									Hourly Emission Rates (lb/hr)								
						ROG	NOx	CO	SOx	PM10	PM2.5	CO2	CH4	N2O	ROG	NOx	CO	SOx	PM10	PM2.5	CO2	CH4	N2O
Year 2019																							
3,000 gal Water Trucks	HHDT	2019	5, 10, 15 (weighted)	10	Diesel	0.853	13.100	2.546	0.027	0.093	0.089	3,231.17	0.005	0.000	0.019	0.289	0.056	0.001	0.002	0.002	71.231	0.000	0.000

LADWP North Hollywood Central Treatment Project
Off-Road Equipment Emissions

Equipment - Project-Specific Name	Equipment	# of Units	Hrs/Day	Hours per Month	Category	Daily Emissions (lb/day)									Monthly Emissions (tons/month)									
						ROG	NOx	CO	SOx	PM10	PM2.5	CO2	CH4	N2O	ROG	NOx	CO	SOx	PM10	PM2.5	CO2	CH4	N2O	CO2E
Jan-19																								
Brush Chipper, 130 H.P.	Other Construction Equipment	1	8	8	Off-Road	0.40	4.05	3.14	0.00	0.19	0.18	462.64	0.15	0.07	0.000	0.002	0.002	0.000	0.000	0.000	0.231	0.000	0.000	0.24
Crawler Loader, 3 C.Y.	Crawler Tractors	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Chain Saws (gas)	Concrete/Industrial Saws	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Stump Chipper	Other Construction Equipment	1	8	8	Off-Road	0.40	4.05	3.14	0.00	0.19	0.18	462.64	0.15	0.07	0.000	0.002	0.002	0.000	0.000	0.000	0.231	0.000	0.000	0.24
Bull Dozer, 200 H.P.	Rubber Tired Dozers	2	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Front end loader, wheel mounted, 3 C.Y. buc	Rubber Tired Loaders	2	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Dump Truck, 12 C.Y., 400 H.P.	Off-Highway Trucks	2	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Sheepsft Roll. 240 H.P.	Rollers	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Backhoe Loader	Tractors/Loaders/Backhoes	3	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Concrete Pump	Pumps	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Gas Engine Vibrator	Plate Compactors	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Rammer Tamper	Plate Compactors	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
S.P. Crane, 4x4, 12 Ton	Cranes	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Lattice Boom Crane	Cranes	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Water Truck, 3000 gallon	--	1	8	20	On-Road	0.15	2.31	0.45	0.00	0.02	0.02	569.85	0.00	0.00	0.000	0.003	0.001	0.000	0.000	0.000	0.712	0.000	0.000	0.71
Jan-19	**TOTAL**			**36.00**		**0.94**	**10.40**	**6.72**	**0.01**	**0.40**	**0.37**	**1,495.13**	**0.29**	**0.13**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**1.17**	**0.00**	**0.00**	**1.20**
Feb-19																								
Brush Chipper, 130 H.P.	Other Construction Equipment	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Crawler Loader, 3 C.Y.	Crawler Tractors	1	8	28	Off-Road	0.61	7.58	2.58	0.01	0.26	0.24	777.24	0.25	0.11	0.001	0.013	0.005	0.000	0.000	0.000	1.360	0.000	0.000	1.43
Chain Saws (gas)	Concrete/Industrial Saws	1	8	56	Off-Road	0.14	0.85	0.48	0.00	0.03	0.03	117.06	0.01	0.01	0.000	0.003	0.002	0.000	0.000	0.000	0.410	0.000	0.000	0.42
Stump Chipper	Other Construction Equipment	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Bull Dozer, 200 H.P.	Rubber Tired Dozers	2	8	69	Off-Road	1.84	18.54	6.94	0.01	0.81	0.75	1,369.04	0.43	0.19	0.004	0.040	0.015	0.000	0.002	0.002	2.952	0.001	0.000	3.10
Front end loader, wheel mounted, 3 C.Y. buc	Rubber Tired Loaders	2	8	119	Off-Road	0.80	9.15	3.36	0.01	0.28	0.25	1,237.54	0.39	0.18	0.003	0.034	0.012	0.000	0.001	0.001	4.602	0.001	0.001	4.83
Dump Truck, 12 C.Y., 400 H.P.	Off-Highway Trucks	2	8	147	Off-Road	1.42	13.63	7.99	0.03	0.45	0.41	2,615.32	0.83	0.37	0.007	0.063	0.037	0.000	0.002	0.002	12.014	0.004	0.002	12.62
Sheepsft Roll. 240 H.P.	Rollers	1	8	80	Off-Road	0.34	4.40	2.01	0.01	0.13	0.12	778.11	0.25	0.11	0.002	0.022	0.010	0.000	0.001	0.001	3.891	0.001	0.001	4.09
Backhoe Loader	Tractors/Loaders/Backhoes	3	8	88	Off-Road	0.70	6.65	6.91	0.01	0.40	0.37	922.57	0.29	0.13	0.001	0.012	0.013	0.000	0.001	0.001	1.691	0.001	0.000	1.78
Concrete Pump	Pumps	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Gas Engine Vibrator	Plate Compactors	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Rammer Tamper	Plate Compactors	1	8	80	Off-Road	0.04	0.24	0.21	0.00	0.01	0.01	34.48	0.00	0.00	0.000	0.001	0.001	0.000	0.000	0.000	0.172	0.000	0.000	0.18
S.P. Crane, 4x4, 12 Ton	Cranes	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Lattice Boom Crane	Cranes	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Water Truck, 3000 gallon	--	1	8	20	On-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Feb-19	**TOTAL**			**687.00**		**5.88**	**61.02**	**30.48**	**0.08**	**2.35**	**2.17**	**7,851.36**	**2.45**	**1.10**	**0.02**	**0.19**	**0.09**	**0.00**	**0.01**	**0.01**	**27.09**	**0.01**	**0.00**	**28.43**
Mar-19																								
Brush Chipper, 130 H.P.	Other Construction Equipment	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Crawler Loader, 3 C.Y.	Crawler Tractors	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Chain Saws (gas)	Concrete/Industrial Saws	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Stump Chipper	Other Construction Equipment	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Bull Dozer, 200 H.P.	Rubber Tired Dozers	2	8	65	Off-Road	1.84	18.54	6.94	0.01	0.81	0.75	1,369.04	0.43	0.19	0.004	0.038	0.014	0.000	0.002	0.002	2.781	0.001	0.000	2.92
Front end loader, wheel mounted, 3 C.Y. buc	Rubber Tired Loaders	2	8	45	Off-Road	0.80	9.15	3.36	0.01	0.28	0.25	1,237.54	0.39	0.18	0.001	0.013	0.005	0.000	0.000	0.000	1.740	0.001	0.000	1.83
Dump Truck, 12 C.Y., 400 H.P.	Off-Highway Trucks	2	8	179	Off-Road	1.42	13.63	7.99	0.03	0.45	0.41	2,615.32	0.83	0.37	0.008	0.076	0.045	0.000	0.002	0.002	14.629	0.005	0.002	15.36
Sheepsft Roll. 240 H.P.	Rollers	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Backhoe Loader	Tractors/Loaders/Backhoes	3	8	253	Off-Road	0.70	6.65	6.91	0.01	0.40	0.37	922.57	0.29	0.13	0.004	0.035	0.036	0.000	0.002	0.002	4.863	0.002	0.001	5.11
Concrete Pump	Pumps	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Gas Engine Vibrator	Plate Compactors	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Rammer Tamper	Plate Compactors	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
S.P. Crane, 4x4, 12 Ton	Cranes	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Lattice Boom Crane	Cranes	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Water Truck, 3000 gallon	--	1	8	20	On-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Mar-19	**TOTAL**			**562.00**		**4.75**	**47.96**	**25.20**	**0.06**	**1.93**	**1.78**	**6,144.47**	**1.94**	**0.87**	**0.02**	**0.16**	**0.10**	**0.00**	**0.01**	**0.01**	**24.01**	**0.01**	**0.00**	**25.22**
Apr-19																								
Brush Chipper, 130 H.P.	Other Construction Equipment	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Crawler Loader, 3 C.Y.	Crawler Tractors	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Chain Saws (gas)	Concrete/Industrial Saws	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Stump Chipper	Other Construction Equipment	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Bull Dozer, 200 H.P.	Rubber Tired Dozers	2	8	201	Off-Road	1.84	18.54	6.94	0.01	0.81	0.75	1,369.04	0.43	0.19	0.012	0.116	0.044	0.000	0.005	0.005	8.599	0.003	0.001	9.03
Front end loader, wheel mounted, 3 C.Y. buc	Rubber Tired Loaders	2	8	167	Off-Road	0.80	9.15	3.36	0.01	0.28	0.25	1,237.54	0.39	0.18	0.004	0.048	0.018	0.000	0.001	0.001	6.458	0.002	0.001	6.78
Dump Truck, 12 C.Y., 400 H.P.	Off-Highway Trucks	2	8	286	Off-Road	1.42	13.63	7.99	0.03	0.45	0.41	2,615.32	0.83	0.37	0.013	0.122	0.071	0.000	0.004	0.004	23.374	0.007	0.003	24.55
Sheepsft Roll. 240 H.P.	Rollers	1	8	14.3	Off-Road	0.34	4.40	2.01	0.01	0.13	0.12	778.11	0.25	0.11	0.000	0.004	0.002	0.000	0.000	0.000	0.695	0.000	0.000	0.73

LADWP North Hollywood Central Treatment Project
Off-Road Equipment Emissions

Equipment - Project-Specific Name	Equipment	# of Units	Hrs/Day	Hours per Month	Category	Daily Emissions (lb/day)									Monthly Emissions (tons/month)									
						ROG	NOx	CO	SOx	PM10	PM2.5	CO2	CH4	N2O	ROG	NOx	CO	SOx	PM10	PM2.5	CO2	CH4	N2O	CO2E
Backhoe Loader	Tractors/Loaders/Backhoes	3	8	480	Off-Road	0.70	6.65	6.91	0.01	0.40	0.37	922.57	0.29	0.13	0.007	0.066	0.069	0.000	0.004	0.004	9.226	0.003	0.001	9.69
Concrete Pump	Pumps	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Gas Engine Vibrator	Plate Compactors	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00

LADWP North Hollywood Central Treatment Project
Off-Road Equipment Emissions

Equipment - Project-Specific Name	Equipment	# of Units	Hrs/Day	Hours per Month	Category	Daily Emissions (lb/day)									Monthly Emissions (tons/month)									
						ROG	NOx	CO	SOx	PM10	PM2.5	CO2	CH4	N2O	ROG	NOx	CO	SOx	PM10	PM2.5	CO2	CH4	N2O	CO2E
Rammer Tamper	Plate Compactors	1	8	14.3	Off-Road	0.04	0.24	0.21	0.00	0.01	0.01	34.48	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.031	0.000	0.000	0.03
S.P. Crane, 4x4, 12 Ton	Cranes	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Lattice Boom Crane	Cranes	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Water Truck, 3000 gallon	--	1	8	20	On-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Apr-19	**TOTAL**			**1,182.60**		**5.13**	**52.60**	**27.41**	**0.07**	**2.07**	**1.90**	**6,957.06**	**2.19**	**0.98**	**0.04**	**0.36**	**0.20**	**0.00**	**0.01**	**0.01**	**48.38**	**0.02**	**0.01**	**50.81**
May-19																								
Brush Chipper, 130 H.P.	Other Construction Equipment	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Crawler Loader, 3 C.Y.	Crawler Tractors	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Chain Saws (gas)	Concrete/Industrial Saws	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Stump Chipper	Other Construction Equipment	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Bull Dozer, 200 H.P.	Rubber Tired Dozers	2	8	215	Off-Road	1.84	18.54	6.94	0.01	0.81	0.75	1,369.04	0.43	0.19	0.012	0.125	0.047	0.000	0.005	0.005	9.198	0.003	0.001	9.66
Front end loader, wheel mounted, 3 C.Y. buc	Rubber Tired Loaders	2	8	287	Off-Road	0.80	9.15	3.36	0.01	0.28	0.25	1,237.54	0.39	0.18	0.007	0.082	0.030	0.000	0.002	0.002	11.099	0.004	0.002	11.66
Dump Truck, 12 C.Y., 400 H.P.	Off-Highway Trucks	2	8	252	Off-Road	1.42	13.63	7.99	0.03	0.45	0.41	2,615.32	0.83	0.37	0.011	0.107	0.063	0.000	0.004	0.003	20.596	0.007	0.003	21.63
Sheepsft Roll. 240 H.P.	Rollers	1	8	12.6	Off-Road	0.34	4.40	2.01	0.01	0.13	0.12	778.11	0.25	0.11	0.000	0.003	0.002	0.000	0.000	0.000	0.613	0.000	0.000	0.64
Backhoe Loader	Tractors/Loaders/Backhoes	3	8	441	Off-Road	0.70	6.65	6.91	0.01	0.40	0.37	922.57	0.29	0.13	0.006	0.061	0.063	0.000	0.004	0.003	8.476	0.003	0.001	8.90
Concrete Pump	Pumps	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Gas Engine Vibrator	Plate Compactors	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Rammer Tamper	Plate Compactors	1	8	12.6	Off-Road	0.04	0.24	0.21	0.00	0.01	0.01	34.48	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.027	0.000	0.000	0.03
S.P. Crane, 4x4, 12 Ton	Cranes	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Lattice Boom Crane	Cranes	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Water Truck, 3000 gallon	--	1	8	20	On-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
May-19	**TOTAL**			**1,240.20**		**5.13**	**52.60**	**27.41**	**0.07**	**2.07**	**1.90**	**6,957.06**	**2.19**	**0.98**	**0.04**	**0.38**	**0.20**	**0.00**	**0.02**	**0.01**	**50.01**	**0.02**	**0.01**	**52.52**
Jun-19																								
Brush Chipper, 130 H.P.	Other Construction Equipment	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Crawler Loader, 3 C.Y.	Crawler Tractors	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Chain Saws (gas)	Concrete/Industrial Saws	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Stump Chipper	Other Construction Equipment	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Bull Dozer, 200 H.P.	Rubber Tired Dozers	2	8	118	Off-Road	1.84	18.54	6.94	0.01	0.81	0.75	1,369.04	0.43	0.19	0.007	0.068	0.026	0.000	0.003	0.003	5.048	0.002	0.001	5.30
Front end loader, wheel mounted, 3 C.Y. buc	Rubber Tired Loaders	2	8	220	Off-Road	0.80	9.15	3.36	0.01	0.28	0.25	1,237.54	0.39	0.18	0.005	0.063	0.023	0.000	0.002	0.002	8.508	0.003	0.001	8.93
Dump Truck, 12 C.Y., 400 H.P.	Off-Highway Trucks	2	8	118	Off-Road	1.42	13.63	7.99	0.03	0.45	0.41	2,615.32	0.83	0.37	0.005	0.050	0.029	0.000	0.002	0.002	9.644	0.003	0.001	10.13
Sheepsft Roll. 240 H.P.	Rollers	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Backhoe Loader	Tractors/Loaders/Backhoes	3	8	314	Off-Road	0.70	6.65	6.91	0.01	0.40	0.37	922.57	0.29	0.13	0.005	0.043	0.045	0.000	0.003	0.002	6.035	0.002	0.001	6.34
Concrete Pump	Pumps	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Gas Engine Vibrator	Plate Compactors	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Rammer Tamper	Plate Compactors	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
S.P. Crane, 4x4, 12 Ton	Cranes	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Lattice Boom Crane	Cranes	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Water Truck, 3000 gallon	--	1	0	0	On-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Jun-19	**TOTAL**			**770.00**		**4.75**	**47.96**	**25.20**	**0.06**	**1.93**	**1.78**	**6,144.47**	**1.94**	**0.87**	**0.02**	**0.23**	**0.12**	**0.00**	**0.01**	**0.01**	**29.24**	**0.01**	**0.00**	**30.70**
Jul-19																								
Brush Chipper, 130 H.P.	Other Construction Equipment	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Crawler Loader, 3 C.Y.	Crawler Tractors	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Chain Saws (gas)	Concrete/Industrial Saws	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Stump Chipper	Other Construction Equipment	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Bull Dozer, 200 H.P.	Rubber Tired Dozers	2	8	272	Off-Road	1.84	18.54	6.94	0.01	0.81	0.75	1,369.04	0.43	0.19	0.016	0.158	0.059	0.000	0.007	0.006	11.637	0.004	0.002	12.22
Front end loader, wheel mounted, 3 C.Y. buc	Rubber Tired Loaders	2	8	345	Off-Road	0.80	9.15	3.36	0.01	0.28	0.25	1,237.54	0.39	0.18	0.009	0.099	0.036	0.000	0.003	0.003	13.342	0.004	0.002	14.01
Dump Truck, 12 C.Y., 400 H.P.	Off-Highway Trucks	2	8	272	Off-Road	1.42	13.63	7.99	0.03	0.45	0.41	2,615.32	0.83	0.37	0.012	0.116	0.068	0.000	0.004	0.003	22.230	0.007	0.003	23.35
Sheepsft Roll. 240 H.P.	Rollers	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Backhoe Loader	Tractors/Loaders/Backhoes	3	8	285	Off-Road	0.70	6.65	6.91	0.01	0.40	0.37	922.57	0.29	0.13	0.004	0.039	0.041	0.000	0.002	0.002	5.478	0.002	0.001	5.75
Concrete Pump	Pumps	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Gas Engine Vibrator	Plate Compactors	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Rammer Tamper	Plate Compactors	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
S.P. Crane, 4x4, 12 Ton	Cranes	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Lattice Boom Crane	Cranes	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Water Truck, 3000 gallon	--	1	0	0	On-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Jul-19	**TOTAL**			**1,174.00**		**4.75**	**47.96**	**25.20**	**0.06**	**1.93**	**1.78**	**6,144.47**	**1.94**	**0.87**	**0.04**	**0.41**	**0.20**	**0.00**	**0.02**	**0.01**	**52.69**	**0.02**	**0.01**	**55.33**
Aug-19																								
Brush Chipper, 130 H.P.	Other Construction Equipment	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Crawler Loader, 3 C.Y.	Crawler Tractors	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00

LADWP North Hollywood Central Treatment Project
Off-Road Equipment Emissions

Equipment - Project-Specific Name	Equipment	# of Units	Hrs/Day	Hours per Month	Category	Daily Emissions (lb/day)									Monthly Emissions (tons/month)									
						ROG	NOx	CO	SOx	PM10	PM2.5	CO2	CH4	N2O	ROG	NOx	CO	SOx	PM10	PM2.5	CO2	CH4	N2O	CO2E
Chain Saws (gas)	Concrete/Industrial Saws	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Stump Chipper	Other Construction Equipment	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Bull Dozer, 200 H.P.	Rubber Tired Dozers	2	8	278	Off-Road	1.84	18.54	6.94	0.01	0.81	0.75	1,369.04	0.43	0.19	0.016	0.161	0.060	0.000	0.007	0.006	11.894	0.004	0.002	12.49
Front end loader, wheel mounted, 3 C.Y. buc	Rubber Tired Loaders	2	8	340	Off-Road	0.80	9.15	3.36	0.01	0.28	0.25	1,237.54	0.39	0.18	0.008	0.097	0.036	0.000	0.003	0.003	13.149	0.004	0.002	13.81

LADWP North Hollywood Central Treatment Project
Off-Road Equipment Emissions

Equipment - Project-Specific Name	Equipment	# of Units	Hrs/Day	Hours per Month	Category	Daily Emissions (lb/day)									Monthly Emissions (tons/month)									
						ROG	NOx	CO	SOx	PM10	PM2.5	CO2	CH4	N2O	ROG	NOx	CO	SOx	PM10	PM2.5	CO2	CH4	N2O	CO2E
Dump Truck, 12 C.Y., 400 H.P.	Off-Highway Trucks	2	8	278	Off-Road	1.42	13.63	7.99	0.03	0.45	0.41	2,615.32	0.83	0.37	0.012	0.118	0.069	0.000	0.004	0.004	22.721	0.007	0.003	23.86
Sheepsft Roll. 240 H.P.	Rollers	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Backhoe Loader	Tractors/Loaders/Backhoes	3	8	274	Off-Road	0.70	6.65	6.91	0.01	0.40	0.37	922.57	0.29	0.13	0.004	0.038	0.039	0.000	0.002	0.002	5.266	0.002	0.001	5.53
Concrete Pump	Pumps	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Gas Engine Vibrator	Plate Compactors	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Rammer Tamper	Plate Compactors	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
S.P. Crane, 4x4, 12 Ton	Cranes	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Lattice Boom Crane	Cranes	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Water Truck, 3000 gallon	--	1	0	0	On-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Aug-19	**TOTAL**			**1,170.00**		**4.75**	**47.96**	**25.20**	**0.06**	**1.93**	**1.78**	**6,144.47**	**1.94**	**0.87**	**0.04**	**0.41**	**0.20**	**0.00**	**0.02**	**0.01**	**53.03**	**0.02**	**0.01**	**55.69**
Sep-19																								
Brush Chipper, 130 H.P.	Other Construction Equipment	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Crawler Loader, 3 C.Y.	Crawler Tractors	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Chain Saws (gas)	Concrete/Industrial Saws	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Stump Chipper	Other Construction Equipment	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Bull Dozer, 200 H.P.	Rubber Tired Dozers	2	8	201	Off-Road	1.84	18.54	6.94	0.01	0.81	0.75	1,369.04	0.43	0.19	0.012	0.116	0.044	0.000	0.005	0.005	8.599	0.003	0.001	9.03
Front end loader, wheel mounted, 3 C.Y. buc	Rubber Tired Loaders	2	8	236	Off-Road	0.80	9.15	3.36	0.01	0.28	0.25	1,237.54	0.39	0.18	0.006	0.067	0.025	0.000	0.002	0.002	9.127	0.003	0.001	9.58
Dump Truck, 12 C.Y., 400 H.P.	Off-Highway Trucks	2	8	201	Off-Road	1.42	13.63	7.99	0.03	0.45	0.41	2,615.32	0.83	0.37	0.009	0.086	0.050	0.000	0.003	0.003	16.427	0.005	0.002	17.25
Sheepsft Roll. 240 H.P.	Rollers	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Backhoe Loader	Tractors/Loaders/Backhoes	3	8	247	Off-Road	0.70	6.65	6.91	0.01	0.40	0.37	922.57	0.29	0.13	0.004	0.034	0.036	0.000	0.002	0.002	4.747	0.002	0.001	4.99
Concrete Pump	Pumps	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Gas Engine Vibrator	Plate Compactors	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Rammer Tamper	Plate Compactors	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
S.P. Crane, 4x4, 12 Ton	Cranes	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Lattice Boom Crane	Cranes	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Water Truck, 3000 gallon	--	1	0	0	On-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Sep-19	**TOTAL**			**885.00**		**4.75**	**47.96**	**25.20**	**0.06**	**1.93**	**1.78**	**6,144.47**	**1.94**	**0.87**	**0.03**	**0.30**	**0.15**	**0.00**	**0.01**	**0.01**	**38.90**	**0.01**	**0.01**	**40.85**
Oct-19																								
Brush Chipper, 130 H.P.	Other Construction Equipment	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Crawler Loader, 3 C.Y.	Crawler Tractors	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Chain Saws (gas)	Concrete/Industrial Saws	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Stump Chipper	Other Construction Equipment	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Bull Dozer, 200 H.P.	Rubber Tired Dozers	2	8	49	Off-Road	1.84	18.54	6.94	0.01	0.81	0.75	1,369.04	0.43	0.19	0.003	0.028	0.011	0.000	0.001	0.001	2.096	0.001	0.000	2.20
Front end loader, wheel mounted, 3 C.Y. buc	Rubber Tired Loaders	2	8	69	Off-Road	0.80	9.15	3.36	0.01	0.28	0.25	1,237.54	0.39	0.18	0.002	0.020	0.007	0.000	0.001	0.001	2.668	0.001	0.000	2.80
Dump Truck, 12 C.Y., 400 H.P.	Off-Highway Trucks	2	8	49	Off-Road	1.42	13.63	7.99	0.03	0.45	0.41	2,615.32	0.83	0.37	0.002	0.021	0.012	0.000	0.001	0.001	4.005	0.001	0.001	4.21
Sheepsft Roll. 240 H.P.	Rollers	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Backhoe Loader	Tractors/Loaders/Backhoes	3	8	232	Off-Road	0.70	6.65	6.91	0.01	0.40	0.37	922.57	0.29	0.13	0.003	0.032	0.033	0.000	0.002	0.002	4.459	0.001	0.001	4.68
Concrete Pump	Pumps	1	8	78.8	Off-Road	0.47	3.63	3.78	0.01	0.20	0.20	623.00	0.04	0.02	0.002	0.018	0.019	0.000	0.001	0.001	3.068	0.000	0.000	3.10
Gas Engine Vibrator	Plate Compactors	1	8	157.6	Off-Road	0.04	0.24	0.21	0.00	0.01	0.01	34.48	0.00	0.00	0.000	0.002	0.002	0.000	0.000	0.000	0.340	0.000	0.000	0.35
Rammer Tamper	Plate Compactors	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
S.P. Crane, 4x4, 12 Ton	Cranes	1	8	160	Off-Road	0.50	5.69	2.29	0.01	0.22	0.20	571.18	0.18	0.08	0.005	0.057	0.023	0.000	0.002	0.002	5.712	0.002	0.001	6.00
Lattice Boom Crane	Cranes	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Water Truck, 3000 gallon	--	1	0	0	On-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Oct-19	**TOTAL**			**795.40**		**5.77**	**57.53**	**31.48**	**0.07**	**2.36**	**2.19**	**7,373.13**	**2.17**	**0.97**	**0.02**	**0.18**	**0.11**	**0.00**	**0.01**	**0.01**	**22.35**	**0.01**	**0.00**	**23.34**
Nov-19																								
Brush Chipper, 130 H.P.	Other Construction Equipment	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Crawler Loader, 3 C.Y.	Crawler Tractors	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Chain Saws (gas)	Concrete/Industrial Saws	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Stump Chipper	Other Construction Equipment	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Bull Dozer, 200 H.P.	Rubber Tired Dozers	2	8	49	Off-Road	1.84	18.54	6.94	0.01	0.81	0.75	1,369.04	0.43	0.19	0.003	0.028	0.011	0.000	0.001	0.001	2.096	0.001	0.000	2.20
Front end loader, wheel mounted, 3 C.Y. buc	Rubber Tired Loaders	2	8	67	Off-Road	0.80	9.15	3.36	0.01	0.28	0.25	1,237.54	0.39	0.18	0.002	0.019	0.007	0.000	0.001	0.001	2.591	0.001	0.000	2.72
Dump Truck, 12 C.Y., 400 H.P.	Off-Highway Trucks	2	8	49	Off-Road	1.42	13.63	7.99	0.03	0.45	0.41	2,615.32	0.83	0.37	0.002	0.021	0.012	0.000	0.001	0.001	4.005	0.001	0.001	4.21
Sheepsft Roll. 240 H.P.	Rollers	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Backhoe Loader	Tractors/Loaders/Backhoes	3	8	230	Off-Road	0.70	6.65	6.91	0.01	0.40	0.37	922.57	0.29	0.13	0.003	0.032	0.033	0.000	0.002	0.002	4.421	0.001	0.001	4.64
Concrete Pump	Pumps	1	8	78.8	Off-Road	0.47	3.63	3.78	0.01	0.20	0.20	623.00	0.04	0.02	0.002	0.018	0.019	0.000	0.001	0.001	3.068	0.000	0.000	3.10
Gas Engine Vibrator	Plate Compactors	1	8	157.6	Off-Road	0.04	0.24	0.21	0.00	0.01	0.01	34.48	0.00	0.00	0.000	0.002	0.002	0.000	0.000	0.000	0.340	0.000	0.000	0.35
Rammer Tamper	Plate Compactors	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
S.P. Crane, 4x4, 12 Ton	Cranes	1	8	160	Off-Road	0.50	5.69	2.29	0.01	0.22	0.20	571.18	0.18	0.08	0.005	0.057	0.023	0.000	0.002	0.002	5.712	0.002	0.001	6.00
Lattice Boom Crane	Cranes	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Water Truck, 3000 gallon	--	1	0	0	On-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00

LADWP North Hollywood Central Treatment Project
Off-Road Equipment Emissions

Equipment - Project-Specific Name	Equipment	# of Units	Hrs/Day	Hours per Month	Category	Daily Emissions (lb/day)									Monthly Emissions (tons/month)									
						ROG	NOx	CO	SOx	PM10	PM2.5	CO2	CH4	N2O	ROG	NOx	CO	SOx	PM10	PM2.5	CO2	CH4	N2O	CO2E
Nov-19	**TOTAL**			**791.40**		**5.77**	**57.53**	**31.48**	**0.07**	**2.36**	**2.19**	**7,373.13**	**2.17**	**0.97**	**0.02**	**0.18**	**0.11**	**0.00**	**0.01**	**0.01**	**22.23**	**0.01**	**0.00**	**23.22**
Dec-19																								
Brush Chipper, 130 H.P.	Other Construction Equipment	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Crawler Loader, 3 C.Y.	Crawler Tractors	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00

LADWP North Hollywood Central Treatment Project
Off-Road Equipment Emissions

Equipment - Project-Specific Name	Equipment	# of Units	Hrs/Day	Hours per Month	Category	Daily Emissions (lb/day)									Monthly Emissions (tons/month)									
						ROG	**NOx**	**CO**	**SOx**	**PM10**	**PM2.5**	**CO2**	**CH4**	**N2O**	**ROG**	**NOx**	**CO**	**SOx**	**PM10**	**PM2.5**	**CO2**	**CH4**	**N2O**	**CO2E**
Chain Saws (gas)	Concrete/Industrial Saws	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Stump Chipper	Other Construction Equipment	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Bull Dozer, 200 H.P.	Rubber Tired Dozers	2	8	40	Off-Road	1.84	18.54	6.94	0.01	0.81	0.75	1,369.04	0.43	0.19	0.002	0.023	0.009	0.000	0.001	0.001	1.711	0.001	0.000	1.80
Front end loader, wheel mounted, 3 C.Y. buc	Rubber Tired Loaders	2	8	55	Off-Road	0.80	9.15	3.36	0.01	0.28	0.25	1,237.54	0.39	0.18	0.001	0.016	0.006	0.000	0.000	0.000	2.127	0.001	0.000	2.23
Dump Truck, 12 C.Y., 400 H.P.	Off-Highway Trucks	2	8	40	Off-Road	1.42	13.63	7.99	0.03	0.45	0.41	2,615.32	0.83	0.37	0.002	0.017	0.010	0.000	0.001	0.001	3.269	0.001	0.000	3.43
Sheepsft Roll. 240 H.P.	Rollers	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Backhoe Loader	Tractors/Loaders/Backhoes	3	8	227	Off-Road	0.70	6.65	6.91	0.01	0.40	0.37	922.57	0.29	0.13	0.003	0.031	0.033	0.000	0.002	0.002	4.363	0.001	0.001	4.58
Concrete Pump	Pumps	1	8	78.8	Off-Road	0.47	3.63	3.78	0.01	0.20	0.20	623.00	0.04	0.02	0.002	0.018	0.019	0.000	0.001	0.001	3.068	0.000	0.000	3.10
Gas Engine Vibrator	Plate Compactors	1	8	157.6	Off-Road	0.04	0.24	0.21	0.00	0.01	0.01	34.48	0.00	0.00	0.000	0.002	0.002	0.000	0.000	0.000	0.340	0.000	0.000	0.35
Rammer Tamper	Plate Compactors	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
S.P. Crane, 4x4, 12 Ton	Cranes	1	8	160	Off-Road	0.50	5.69	2.29	0.01	0.22	0.20	571.18	0.18	0.08	0.005	0.057	0.023	0.000	0.002	0.002	5.712	0.002	0.001	6.00
Lattice Boom Crane	Cranes	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Water Truck, 3000 gallon	--	1	0	0	On-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Dec-19	**TOTAL**			**758.40**		**5.77**	**57.53**	**31.48**	**0.07**	**2.36**	**2.19**	**7,373.13**	**2.17**	**0.97**	**0.02**	**0.16**	**0.10**	**0.00**	**0.01**	**0.01**	**20.59**	**0.01**	**0.00**	**21.49**

ANNUAL SUMMARY - MAXIMUM	**5.88**	**61.02**	**31.48**	**0.08**	**2.36**	**2.19**	**7,851.36**	**2.45**	**1.10**	0.04	0.41	0.20	0.00	0.02	0.01	53.03	0.02	0.01	55.69
ANNUAL TOTAL - TONS										0.29	2.97	1.61	0.00	0.12	0.11	389.70	0.12	0.05	408.80
ANNUAL TOTAL - METRIC TONS																**429.57**	**0.13**	**0.06**	**450.62**

LADWP North Hollywood Central Treatment Project

Off-Road Equipment Emissions

Equipment - Project-Specific Name	Equipment	# of Units	Hrs/Day	Hours per Month	Category	Daily Emissions (lb/day)									Monthly Emissions (tons/month)									
						ROG	NOx	CO	SOx	PM10	PM2.5	CO2	CH4	N2O	ROG	NOx	CO	SOx	PM10	PM2.5	CO2	CH4	N2O	CO2E
Jan-20																								
Brush Chipper, 130 H.P.	Other Construction Equipment	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Crawler Loader, 3 C.Y.	Crawler Tractors	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Chain Saws (gas)	Concrete/Industrial Saws	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Stump Chipper	Other Construction Equipment	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Bull Dozer, 200 H.P.	Rubber Tired Dozers	2	8	85	Off-Road	1.84	18.54	6.94	0.01	0.81	0.75	1,369.04	0.43	0.19	0.005	0.049	0.018	0.000	0.002	0.002	3.637	0.001	0.001	3.82
Front end loader, wheel mounted, 3 C.Y. bu	Rubber Tired Loaders	2	8	117	Off-Road	0.80	9.15	3.36	0.01	0.28	0.25	1,237.54	0.39	0.18	0.003	0.033	0.012	0.000	0.001	0.001	4.525	0.001	0.001	4.75
Dump Truck, 12 C.Y., 400 H.P.	Off-Highway Trucks	2	8	85	Off-Road	1.42	13.63	7.99	0.03	0.45	0.41	2,615.32	0.83	0.37	0.004	0.036	0.021	0.000	0.001	0.001	6.947	0.002	0.001	7.30
Sheepsft Roll. 240 H.P.	Rollers	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Backhoe Loader	Tractors/Loaders/Backhoes	3	8	289	Off-Road	0.70	6.65	6.91	0.01	0.40	0.37	922.57	0.29	0.13	0.004	0.040	0.042	0.000	0.002	0.002	5.555	0.002	0.001	5.83
Concrete Pump	Pumps	1	8	78.8	Off-Road	0.47	3.63	3.78	0.01	0.20	0.20	623.00	0.04	0.02	0.002	0.018	0.019	0.000	0.001	0.001	3.068	0.000	0.000	3.10
Gas Engine Vibrator	Plate Compactors	1	8	157.6	Off-Road	0.04	0.24	0.21	0.00	0.01	0.01	34.48	0.00	0.00	0.000	0.002	0.002	0.000	0.000	0.000	0.340	0.000	0.000	0.35
Rammer Tamper	Plate Compactors	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
S.P. Crane, 4x4, 12 Ton	Cranes	1	8	160	Off-Road	0.50	5.69	2.29	0.01	0.22	0.20	571.18	0.18	0.08	0.005	0.057	0.023	0.000	0.002	0.002	5.712	0.002	0.001	6.00
Lattice Boom Crane	Cranes	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Water Truck, 3000 gallon	--	1	0	0	On-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Jan-20	**TOTAL**			**972.40**		**5.77**	**57.53**	**31.48**	**0.07**	**2.36**	**2.19**	**7,373.13**	**2.17**	**0.97**	**0.02**	**0.24**	**0.14**	**0.00**	**0.01**	**0.01**	**29.78**	**0.01**	**0.00**	**31.14**
Feb-20																								
Brush Chipper, 130 H.P.	Other Construction Equipment	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Crawler Loader, 3 C.Y.	Crawler Tractors	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Chain Saws (gas)	Concrete/Industrial Saws	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Stump Chipper	Other Construction Equipment	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Bull Dozer, 200 H.P.	Rubber Tired Dozers	2	8	85	Off-Road	1.84	18.54	6.94	0.01	0.81	0.75	1,369.04	0.43	0.19	0.005	0.049	0.018	0.000	0.002	0.002	3.637	0.001	0.001	3.82
Front end loader, wheel mounted, 3 C.Y. bu	Rubber Tired Loaders	2	8	117	Off-Road	0.80	9.15	3.36	0.01	0.28	0.25	1,237.54	0.39	0.18	0.003	0.033	0.012	0.000	0.001	0.001	4.525	0.001	0.001	4.75
Dump Truck, 12 C.Y., 400 H.P.	Off-Highway Trucks	2	8	85	Off-Road	1.42	13.63	7.99	0.03	0.45	0.41	2,615.32	0.83	0.37	0.004	0.036	0.021	0.000	0.001	0.001	6.947	0.002	0.001	7.30
Sheepsft Roll. 240 H.P.	Rollers	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Backhoe Loader	Tractors/Loaders/Backhoes	3	8	289	Off-Road	0.70	6.65	6.91	0.01	0.40	0.37	922.57	0.29	0.13	0.004	0.040	0.042	0.000	0.002	0.002	5.555	0.002	0.001	5.83
Concrete Pump	Pumps	1	8	78.8	Off-Road	0.47	3.63	3.78	0.01	0.20	0.20	623.00	0.04	0.02	0.002	0.018	0.019	0.000	0.001	0.001	3.068	0.000	0.000	3.10
Gas Engine Vibrator	Plate Compactors	1	8	157.6	Off-Road	0.04	0.24	0.21	0.00	0.01	0.01	34.48	0.00	0.00	0.000	0.002	0.002	0.000	0.000	0.000	0.340	0.000	0.000	0.35
Rammer Tamper	Plate Compactors	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
S.P. Crane, 4x4, 12 Ton	Cranes	1	8	160	Off-Road	0.50	5.69	2.29	0.01	0.22	0.20	571.18	0.18	0.08	0.005	0.057	0.023	0.000	0.002	0.002	5.712	0.002	0.001	6.00
Lattice Boom Crane	Cranes	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Water Truck, 3000 gallon	--	1	0	0	On-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Feb-20	**TOTAL**			**972.40**		**5.77**	**57.53**	**31.48**	**0.07**	**2.36**	**2.19**	**7,373.13**	**2.17**	**0.97**	**0.02**	**0.24**	**0.14**	**0.00**	**0.01**	**0.01**	**29.78**	**0.01**	**0.00**	**31.14**
Mar-20																								
Brush Chipper, 130 H.P.	Other Construction Equipment	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Crawler Loader, 3 C.Y.	Crawler Tractors	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Chain Saws (gas)	Concrete/Industrial Saws	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Stump Chipper	Other Construction Equipment	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Bull Dozer, 200 H.P.	Rubber Tired Dozers	2	8	85	Off-Road	1.84	18.54	6.94	0.01	0.81	0.75	1,369.04	0.43	0.19	0.005	0.049	0.018	0.000	0.002	0.002	3.637	0.001	0.001	3.82
Front end loader, wheel mounted, 3 C.Y. bu	Rubber Tired Loaders	2	8	117	Off-Road	0.80	9.15	3.36	0.01	0.28	0.25	1,237.54	0.39	0.18	0.003	0.033	0.012	0.000	0.001	0.001	4.525	0.001	0.001	4.75
Dump Truck, 12 C.Y., 400 H.P.	Off-Highway Trucks	2	8	85	Off-Road	1.42	13.63	7.99	0.03	0.45	0.41	2,615.32	0.83	0.37	0.004	0.036	0.021	0.000	0.001	0.001	6.947	0.002	0.001	7.30
Sheepsft Roll. 240 H.P.	Rollers	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Backhoe Loader	Tractors/Loaders/Backhoes	3	8	289	Off-Road	0.70	6.65	6.91	0.01	0.40	0.37	922.57	0.29	0.13	0.004	0.040	0.042	0.000	0.002	0.002	5.555	0.002	0.001	5.83
Concrete Pump	Pumps	1	8	78.8	Off-Road	0.47	3.63	3.78	0.01	0.20	0.20	623.00	0.04	0.02	0.002	0.018	0.019	0.000	0.001	0.001	3.068	0.000	0.000	3.10
Gas Engine Vibrator	Plate Compactors	1	8	157.6	Off-Road	0.04	0.24	0.21	0.00	0.01	0.01	34.48	0.00	0.00	0.000	0.002	0.002	0.000	0.000	0.000	0.340	0.000	0.000	0.35
Rammer Tamper	Plate Compactors	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
S.P. Crane, 4x4, 12 Ton	Cranes	1	8	160	Off-Road	0.50	5.69	2.29	0.01	0.22	0.20	571.18	0.18	0.08	0.005	0.057	0.023	0.000	0.002	0.002	5.712	0.002	0.001	6.00
Lattice Boom Crane	Cranes	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00

LADWP North Hollywood Central Treatment Project
Off-Road Equipment Emissions

Equipment - Project-Specific Name	Equipment	# of Units	Hrs/Day	Hours per Month	Category	Daily Emissions (lb/day)									Monthly Emissions (tons/month)									
						ROG	NOx	CO	SOx	PM10	PM2.5	CO2	CH4	N2O	ROG	NOx	CO	SOx	PM10	PM2.5	CO2	CH4	N2O	CO2E
Water Truck, 3000 gallon	--	1	0	0	On-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Mar-20	**TOTAL**			**972.40**		**5.77**	**57.53**	**31.48**	**0.07**	**2.36**	**2.19**	**7,373.13**	**2.17**	**0.97**	**0.02**	**0.24**	**0.14**	**0.00**	**0.01**	**0.01**	**29.78**	**0.01**	**0.00**	**31.14**
Apr-20																								
Brush Chipper, 130 H.P.	Other Construction Equipment	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Crawler Loader, 3 C.Y.	Crawler Tractors	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Chain Saws (gas)	Concrete/Industrial Saws	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Stump Chipper	Other Construction Equipment	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Bull Dozer, 200 H.P.	Rubber Tired Dozers	2	8	85	Off-Road	1.84	18.54	6.94	0.01	0.81	0.75	1,369.04	0.43	0.19	0.005	0.049	0.018	0.000	0.002	0.002	3.637	0.001	0.001	3.82
Front end loader, wheel mounted, 3 C.Y. buc	Rubber Tired Loaders	2	8	117	Off-Road	0.80	9.15	3.36	0.01	0.28	0.25	1,237.54	0.39	0.18	0.003	0.033	0.012	0.000	0.001	0.001	4.525	0.001	0.001	4.75
Dump Truck, 12 C.Y., 400 H.P.	Off-Highway Trucks	2	8	85	Off-Road	1.42	13.63	7.99	0.03	0.45	0.41	2,615.32	0.83	0.37	0.004	0.036	0.021	0.000	0.001	0.001	6.947	0.002	0.001	7.30
Sheepsft Roll. 240 H.P.	Rollers	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Backhoe Loader	Tractors/Loaders/Backhoes	3	8	289	Off-Road	0.70	6.65	6.91	0.01	0.40	0.37	922.57	0.29	0.13	0.004	0.040	0.042	0.000	0.002	0.002	5.555	0.002	0.001	5.83
Concrete Pump	Pumps	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Gas Engine Vibrator	Plate Compactors	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Rammer Tamper	Plate Compactors	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
S.P. Crane, 4x4, 12 Ton	Cranes	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Lattice Boom Crane	Cranes	1	8	160	Off-Road	0.50	5.69	2.29	0.01	0.22	0.20	571.18	0.18	0.08	0.005	0.057	0.023	0.000	0.002	0.002	5.712	0.002	0.001	6.00
Water Truck, 3000 gallon	--	1	0	0	On-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Apr-20	**TOTAL**			**736.00**		**5.26**	**53.66**	**27.49**	**0.07**	**2.15**	**1.98**	**6,715.65**	**2.12**	**0.95**	**0.02**	**0.22**	**0.12**	**0.00**	**0.01**	**0.01**	**26.37**	**0.01**	**0.00**	**27.70**
May-20																								
Brush Chipper, 130 H.P.	Other Construction Equipment	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Crawler Loader, 3 C.Y.	Crawler Tractors	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Chain Saws (gas)	Concrete/Industrial Saws	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Stump Chipper	Other Construction Equipment	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Bull Dozer, 200 H.P.	Rubber Tired Dozers	2	8	85	Off-Road	1.84	18.54	6.94	0.01	0.81	0.75	1,369.04	0.43	0.19	0.005	0.049	0.018	0.000	0.002	0.002	3.637	0.001	0.001	3.82
Front end loader, wheel mounted, 3 C.Y. buc	Rubber Tired Loaders	2	8	117	Off-Road	0.80	9.15	3.36	0.01	0.28	0.25	1,237.54	0.39	0.18	0.003	0.033	0.012	0.000	0.001	0.001	4.525	0.001	0.001	4.75
Dump Truck, 12 C.Y., 400 H.P.	Off-Highway Trucks	2	8	85	Off-Road	1.42	13.63	7.99	0.03	0.45	0.41	2,615.32	0.83	0.37	0.004	0.036	0.021	0.000	0.001	0.001	6.947	0.002	0.001	7.30
Sheepsft Roll. 240 H.P.	Rollers	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Backhoe Loader	Tractors/Loaders/Backhoes	3	8	289	Off-Road	0.70	6.65	6.91	0.01	0.40	0.37	922.57	0.29	0.13	0.004	0.040	0.042	0.000	0.002	0.002	5.555	0.002	0.001	5.83
Concrete Pump	Pumps	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Gas Engine Vibrator	Plate Compactors	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Rammer Tamper	Plate Compactors	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
S.P. Crane, 4x4, 12 Ton	Cranes	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Lattice Boom Crane	Cranes	1	8	160	Off-Road	0.50	5.69	2.29	0.01	0.22	0.20	571.18	0.18	0.08	0.005	0.057	0.023	0.000	0.002	0.002	5.712	0.002	0.001	6.00
Water Truck, 3000 gallon	--	1	0	0	On-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
May-20	**TOTAL**			**736.00**		**5.26**	**53.66**	**27.49**	**0.07**	**2.15**	**1.98**	**6,715.65**	**2.12**	**0.95**	**0.02**	**0.22**	**0.12**	**0.00**	**0.01**	**0.01**	**26.37**	**0.01**	**0.00**	**27.70**
Jun-20																								
Brush Chipper, 130 H.P.	Other Construction Equipment	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Crawler Loader, 3 C.Y.	Crawler Tractors	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Chain Saws (gas)	Concrete/Industrial Saws	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Stump Chipper	Other Construction Equipment	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Bull Dozer, 200 H.P.	Rubber Tired Dozers	2	8	108	Off-Road	1.84	18.54	6.94	0.01	0.81	0.75	1,369.04	0.43	0.19	0.006	0.063	0.023	0.000	0.003	0.003	4.621	0.001	0.001	4.85
Front end loader, wheel mounted, 3 C.Y. buc	Rubber Tired Loaders	2	8	149	Off-Road	0.80	9.15	3.36	0.01	0.28	0.25	1,237.54	0.39	0.18	0.004	0.043	0.016	0.000	0.001	0.001	5.762	0.002	0.001	6.05
Dump Truck, 12 C.Y., 400 H.P.	Off-Highway Trucks	2	8	108	Off-Road	1.42	13.63	7.99	0.03	0.45	0.41	2,615.32	0.83	0.37	0.005	0.046	0.027	0.000	0.002	0.001	8.827	0.003	0.001	9.27
Sheepsft Roll. 240 H.P.	Rollers	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Backhoe Loader	Tractors/Loaders/Backhoes	3	8	321	Off-Road	0.70	6.65	6.91	0.01	0.40	0.37	922.57	0.29	0.13	0.005	0.044	0.046	0.000	0.003	0.002	6.170	0.002	0.001	6.48
Concrete Pump	Pumps	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Gas Engine Vibrator	Plate Compactors	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Rammer Tamper	Plate Compactors	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
S.P. Crane, 4x4, 12 Ton	Cranes	1	8	160	Off-Road	0.50	5.69	2.29	0.01	0.22	0.20	571.18	0.18	0.08	0.005	0.057	0.023	0.000	0.002	0.002	5.712	0.002	0.001	6.00
Lattice Boom Crane	Cranes	1	8	160	Off-Road	0.50	5.69	2.29	0.01	0.22	0.20	571.18	0.18	0.08	0.005	0.057	0.023	0.000	0.002	0.002	5.712	0.002	0.001	6.00
Water Truck, 3000 gallon	--	1	0	0	On-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Jun-20	**TOTAL**			**1,006.00**		**5.76**	**59.35**	**29.78**	**0.07**	**2.37**	**2.18**	**7,286.83**	**2.31**	**1.03**	**0.03**	**0.31**	**0.16**	**0.00**	**0.01**	**0.01**	**36.80**	**0.01**	**0.01**	**38.65**
Jul-20																								
Brush Chipper, 130 H.P.	Other Construction Equipment	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Crawler Loader, 3 C.Y.	Crawler Tractors	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Chain Saws (gas)	Concrete/Industrial Saws	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Stump Chipper	Other Construction Equipment	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Bull Dozer, 200 H.P.	Rubber Tired Dozers	2	8	108	Off-Road	1.84	18.54	6.94	0.01	0.81	0.75	1,369.04	0.43	0.19	0.006	0.063	0.023	0.000	0.003	0.003	4.621	0.001	0.001	4.85

LADWP North Hollywood Central Treatment Project
Off-Road Equipment Emissions

Equipment - Project-Specific Name	Equipment	# of Units	Hrs/Day	Hours per Month	Category		Daily Emissions (lb/day)										Monthly Emissions (tons/month)									
							ROG	NOx	CO	SOx	PM10	PM2.5	CO2	CH4	N2O		ROG	NOx	CO	SOx	PM10	PM2.5	CO2	CH4	N2O	CO2E
Front end loader, wheel mounted, 3 C.Y. bu	Rubber Tired Loaders	2	8	149	Off-Road		0.80	9.15	3.36	0.01	0.28	0.25	1,237.54	0.39	0.18		0.004	0.043	0.016	0.000	0.001	0.001	5.762	0.002	0.001	6.05
Dump Truck, 12 C.Y., 400 H.P.	Off-Highway Trucks	2	8	108	Off-Road		1.42	13.63	7.99	0.03	0.45	0.41	2,615.32	0.83	0.37		0.005	0.046	0.027	0.000	0.002	0.001	8.827	0.003	0.001	9.27
Sheepsft Roll. 240 H.P.	Rollers	1	0	0	Off-Road		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00

LADWP North Hollywood Central Treatment Project
Off-Road Equipment Emissions

Equipment - Project-Specific Name	Equipment	# of Units	Hrs/Day	Hours per Month	Category	Daily Emissions (lb/day)									Monthly Emissions (tons/month)									
						ROG	NOx	CO	SOx	PM10	PM2.5	CO2	CH4	N2O	ROG	NOx	CO	SOx	PM10	PM2.5	CO2	CH4	N2O	CO2E
Backhoe Loader	Tractors/Loaders/Backhoes	3	8	321	Off-Road	0.70	6.65	6.91	0.01	0.40	0.37	922.57	0.29	0.13	0.005	0.044	0.046	0.000	0.003	0.002	6.170	0.002	0.001	6.48
Concrete Pump	Pumps	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Gas Engine Vibrator	Plate Compactors	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Rammer Tamper	Plate Compactors	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
S.P. Crane, 4x4, 12 Ton	Cranes	1	8	160	Off-Road	0.50	5.69	2.29	0.01	0.22	0.20	571.18	0.18	0.08	0.005	0.057	0.023	0.000	0.002	0.002	5.712	0.002	0.001	6.00
Lattice Boom Crane	Cranes	1	8	160	Off-Road	0.50	5.69	2.29	0.01	0.22	0.20	571.18	0.18	0.08	0.005	0.057	0.023	0.000	0.002	0.002	5.712	0.002	0.001	6.00
Water Truck, 3000 gallon	--	1	0	0	On-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Jul-20	**TOTAL**			**1,006.00**		**5.76**	**59.35**	**29.78**	**0.07**	**2.37**	**2.18**	**7,286.83**	**2.31**	**1.03**	**0.03**	**0.31**	**0.16**	**0.00**	**0.01**	**0.01**	**36.80**	**0.01**	**0.01**	**38.65**
Aug-20																								
Brush Chipper, 130 H.P.	Other Construction Equipment	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Crawler Loader, 3 C.Y.	Crawler Tractors	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Chain Saws (gas)	Concrete/Industrial Saws	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Stump Chipper	Other Construction Equipment	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Bull Dozer, 200 H.P.	Rubber Tired Dozers	2	8	85	Off-Road	1.84	18.54	6.94	0.01	0.81	0.75	1,369.04	0.43	0.19	0.005	0.049	0.018	0.000	0.002	0.002	3.637	0.001	0.001	3.82
Front end loader, wheel mounted, 3 C.Y. bu	Rubber Tired Loaders	2	8	117	Off-Road	0.80	9.15	3.36	0.01	0.28	0.25	1,237.54	0.39	0.18	0.003	0.033	0.012	0.000	0.001	0.001	4.525	0.001	0.001	4.75
Dump Truck, 12 C.Y., 400 H.P.	Off-Highway Trucks	2	8	85	Off-Road	1.42	13.63	7.99	0.03	0.45	0.41	2,615.32	0.83	0.37	0.004	0.036	0.021	0.000	0.001	0.001	6.947	0.002	0.001	7.30
Sheepsft Roll. 240 H.P.	Rollers	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Backhoe Loader	Tractors/Loaders/Backhoes	3	8	289	Off-Road	0.70	6.65	6.91	0.01	0.40	0.37	922.57	0.29	0.13	0.004	0.040	0.042	0.000	0.002	0.002	5.555	0.002	0.001	5.83
Concrete Pump	Pumps	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Gas Engine Vibrator	Plate Compactors	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Rammer Tamper	Plate Compactors	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
S.P. Crane, 4x4, 12 Ton	Cranes	1	8	160	Off-Road	0.50	5.69	2.29	0.01	0.22	0.20	571.18	0.18	0.08	0.005	0.057	0.023	0.000	0.002	0.002	5.712	0.002	0.001	6.00
Lattice Boom Crane	Cranes	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Water Truck, 3000 gallon	--	1	0	0	On-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Aug-20	**TOTAL**			**736.00**		**5.26**	**53.66**	**27.49**	**0.07**	**2.15**	**1.98**	**6,715.65**	**2.12**	**0.95**	**0.02**	**0.22**	**0.12**	**0.00**	**0.01**	**0.01**	**26.37**	**0.01**	**0.00**	**27.70**
Sep-20																								
Brush Chipper, 130 H.P.	Other Construction Equipment	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Crawler Loader, 3 C.Y.	Crawler Tractors	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Chain Saws (gas)	Concrete/Industrial Saws	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Stump Chipper	Other Construction Equipment	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Bull Dozer, 200 H.P.	Rubber Tired Dozers	2	8	85	Off-Road	1.84	18.54	6.94	0.01	0.81	0.75	1,369.04	0.43	0.19	0.005	0.049	0.018	0.000	0.002	0.002	3.637	0.001	0.001	3.82
Front end loader, wheel mounted, 3 C.Y. bu	Rubber Tired Loaders	2	8	117	Off-Road	0.80	9.15	3.36	0.01	0.28	0.25	1,237.54	0.39	0.18	0.003	0.033	0.012	0.000	0.001	0.001	4.525	0.001	0.001	4.75
Dump Truck, 12 C.Y., 400 H.P.	Off-Highway Trucks	2	8	85	Off-Road	1.42	13.63	7.99	0.03	0.45	0.41	2,615.32	0.83	0.37	0.004	0.036	0.021	0.000	0.001	0.001	6.947	0.002	0.001	7.30
Sheepsft Roll. 240 H.P.	Rollers	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Backhoe Loader	Tractors/Loaders/Backhoes	3	8	289	Off-Road	0.70	6.65	6.91	0.01	0.40	0.37	922.57	0.29	0.13	0.004	0.040	0.042	0.000	0.002	0.002	5.555	0.002	0.001	5.83
Concrete Pump	Pumps	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Gas Engine Vibrator	Plate Compactors	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Rammer Tamper	Plate Compactors	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
S.P. Crane, 4x4, 12 Ton	Cranes	1	8	160	Off-Road	0.50	5.69	2.29	0.01	0.22	0.20	571.18	0.18	0.08	0.005	0.057	0.023	0.000	0.002	0.002	5.712	0.002	0.001	6.00
Lattice Boom Crane	Cranes	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Water Truck, 3000 gallon	--	1	0	0	On-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Sep-20	**TOTAL**			**736.00**		**5.26**	**53.66**	**27.49**	**0.07**	**2.15**	**1.98**	**6,715.65**	**2.12**	**0.95**	**0.02**	**0.22**	**0.12**	**0.00**	**0.01**	**0.01**	**26.37**	**0.01**	**0.00**	**27.70**
Oct-20																								
Brush Chipper, 130 H.P.	Other Construction Equipment	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Crawler Loader, 3 C.Y.	Crawler Tractors	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Chain Saws (gas)	Concrete/Industrial Saws	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Stump Chipper	Other Construction Equipment	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Bull Dozer, 200 H.P.	Rubber Tired Dozers	2	8	40	Off-Road	1.84	18.54	6.94	0.01	0.81	0.75	1,369.04	0.43	0.19	0.002	0.023	0.009	0.000	0.001	0.001	1.711	0.001	0.000	1.80
Front end loader, wheel mounted, 3 C.Y. bu	Rubber Tired Loaders	2	8	55	Off-Road	0.80	9.15	3.36	0.01	0.28	0.25	1,237.54	0.39	0.18	0.001	0.016	0.006	0.000	0.000	0.000	2.127	0.001	0.000	2.23
Dump Truck, 12 C.Y., 400 H.P.	Off-Highway Trucks	2	8	40	Off-Road	1.42	13.63	7.99	0.03	0.45	0.41	2,615.32	0.83	0.37	0.002	0.017	0.010	0.000	0.001	0.001	3.269	0.001	0.000	3.43
Sheepsft Roll. 240 H.P.	Rollers	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Backhoe Loader	Tractors/Loaders/Backhoes	3	8	227	Off-Road	0.70	6.65	6.91	0.01	0.40	0.37	922.57	0.29	0.13	0.003	0.031	0.033	0.000	0.002	0.002	4.363	0.001	0.001	4.58
Concrete Pump	Pumps	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Gas Engine Vibrator	Plate Compactors	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Rammer Tamper	Plate Compactors	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00

LADWP North Hollywood Central Treatment Project
Off-Road Equipment Emissions

Equipment - Project-Specific Name	Equipment	# of Units	Hrs/Day	Hours per Month	Category	Daily Emissions (lb/day)									Monthly Emissions (tons/month)									
						ROG	NOx	CO	SOx	PM10	PM2.5	CO2	CH4	N2O	ROG	NOx	CO	SOx	PM10	PM2.5	CO2	CH4	N2O	CO2E
S.P. Crane, 4x4, 12 Ton	Cranes	1	8	160	Off-Road	0.50	5.69	2.29	0.01	0.22	0.20	571.18	0.18	0.08	0.005	0.057	0.023	0.000	0.002	0.002	5.712	0.002	0.001	6.00
Lattice Boom Crane	Cranes	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Water Truck, 3000 gallon	--	1	0	0	On-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Oct-20	**TOTAL**			**522.00**		**5.26**	**53.66**	**27.49**	**0.07**	**2.15**	**1.98**	**6,715.65**	**2.12**	**0.95**	**0.01**	**0.14**	**0.08**	**0.00**	**0.01**	**0.01**	**17.18**	**0.01**	**0.00**	**18.04**
Nov-20																								
Brush Chipper, 130 H.P.	Other Construction Equipment	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Crawler Loader, 3 C.Y.	Crawler Tractors	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Chain Saws (gas)	Concrete/Industrial Saws	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Stump Chipper	Other Construction Equipment	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Bull Dozer, 200 H.P.	Rubber Tired Dozers	2	8	20	Off-Road	1.84	18.54	6.94	0.01	0.81	0.75	1,369.04	0.43	0.19	0.001	0.012	0.004	0.000	0.001	0.000	0.856	0.000	0.000	0.90
Front end loader, wheel mounted, 3 C.Y. bu	Rubber Tired Loaders	2	8	28	Off-Road	0.80	9.15	3.36	0.01	0.28	0.25	1,237.54	0.39	0.18	0.001	0.008	0.003	0.000	0.000	0.000	1.083	0.000	0.000	1.14
Dump Truck, 12 C.Y., 400 H.P.	Off-Highway Trucks	2	8	20	Off-Road	1.42	13.63	7.99	0.03	0.45	0.41	2,615.32	0.83	0.37	0.001	0.009	0.005	0.000	0.000	0.000	1.635	0.001	0.000	1.72
Sheepsft Roll. 240 H.P.	Rollers	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Backhoe Loader	Tractors/Loaders/Backhoes	3	8	114	Off-Road	0.70	6.65	6.91	0.01	0.40	0.37	922.57	0.29	0.13	0.002	0.016	0.016	0.000	0.001	0.001	2.191	0.001	0.000	2.30
Concrete Pump	Pumps	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Gas Engine Vibrator	Plate Compactors	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Rammer Tamper	Plate Compactors	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
S.P. Crane, 4x4, 12 Ton	Cranes	1	8	160	Off-Road	0.50	5.69	2.29	0.01	0.22	0.20	571.18	0.18	0.08	0.005	0.057	0.023	0.000	0.002	0.002	5.712	0.002	0.001	6.00
Lattice Boom Crane	Cranes	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Water Truck, 3000 gallon	--	1	0	0	On-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Nov-20	**TOTAL**			**342.00**		**5.26**	**53.66**	**27.49**	**0.07**	**2.15**	**1.98**	**6,715.65**	**2.12**	**0.95**	**0.01**	**0.10**	**0.05**	**0.00**	**0.00**	**0.00**	**11.48**	**0.00**	**0.00**	**12.05**
Dec-20																								
Brush Chipper, 130 H.P.	Other Construction Equipment	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Crawler Loader, 3 C.Y.	Crawler Tractors	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Chain Saws (gas)	Concrete/Industrial Saws	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Stump Chipper	Other Construction Equipment	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Bull Dozer, 200 H.P.	Rubber Tired Dozers	2	8	20	Off-Road	1.84	18.54	6.94	0.01	0.81	0.75	1,369.04	0.43	0.19	0.001	0.012	0.004	0.000	0.001	0.000	0.856	0.000	0.000	0.90
Front end loader, wheel mounted, 3 C.Y. bu	Rubber Tired Loaders	2	8	28	Off-Road	0.80	9.15	3.36	0.01	0.28	0.25	1,237.54	0.39	0.18	0.001	0.008	0.003	0.000	0.000	0.000	1.083	0.000	0.000	1.14
Dump Truck, 12 C.Y., 400 H.P.	Off-Highway Trucks	2	8	20	Off-Road	1.42	13.63	7.99	0.03	0.45	0.41	2,615.32	0.83	0.37	0.001	0.009	0.005	0.000	0.000	0.000	1.635	0.001	0.000	1.72
Sheepsft Roll. 240 H.P.	Rollers	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Backhoe Loader	Tractors/Loaders/Backhoes	3	8	114	Off-Road	0.70	6.65	6.91	0.01	0.40	0.37	922.57	0.29	0.13	0.002	0.016	0.016	0.000	0.001	0.001	2.191	0.001	0.000	2.30
Concrete Pump	Pumps	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Gas Engine Vibrator	Plate Compactors	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Rammer Tamper	Plate Compactors	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
S.P. Crane, 4x4, 12 Ton	Cranes	1	8	160	Off-Road	0.50	5.69	2.29	0.01	0.22	0.20	571.18	0.18	0.08	0.005	0.057	0.023	0.000	0.002	0.002	5.712	0.002	0.001	6.00
Lattice Boom Crane	Cranes	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Water Truck, 3000 gallon	--	1	0	0	On-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Dec-20	**TOTAL**			**342.00**		**5.26**	**53.66**	**27.49**	**0.07**	**2.15**	**1.98**	**6,715.65**	**2.12**	**0.95**	**0.01**	**0.10**	**0.05**	**0.00**	**0.00**	**0.00**	**11.48**	**0.00**	**0.00**	**12.05**
ANNUAL SUMMARY - MAXIMUM						**5.77**	**59.35**	**31.48**	**0.07**	**2.37**	**2.19**	**7,373.13**	**2.31**	**1.03**	0.03	0.31	0.16	0.00	0.01	0.01	36.80	0.01	0.01	38.65
ANNUAL TOTAL - TONS															0.25	2.54	1.38	0.00	0.11	0.10	308.59	0.10	0.04	323.67
ANNUAL TOTAL - METRIC TONS																					**340.16**	**0.10**	**0.05**	**356.79**

LADWP North Hollywood Central Treatment Project
Off-Road Equipment Emissions

Equipment - Project-Specific Name	Equipment	# of Units	Hrs/Day	Hours per Month	Category	Daily Emissions (lb/day)									Monthly Emissions (tons/month)									
						ROG	NOx	CO	SOx	PM10	PM2.5	CO2	CH4	N2O	ROG	NOx	CO	SOx	PM10	PM2.5	CO2	CH4	N2O	CO2E
Jan-21																								
Brush Chipper, 130 H.P.	Other Construction Equipment	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Crawler Loader, 3 C.Y.	Crawler Tractors	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Chain Saws (gas)	Concrete/Industrial Saws	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Stump Chipper	Other Construction Equipment	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Bull Dozer, 200 H.P.	Rubber Tired Dozers	2	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Front end loader, wheel mounted, 3 C.Y. buc	Rubber Tired Loaders	2	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Dump Truck, 12 C.Y., 400 H.P.	Off-Highway Trucks	2	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Sheepsft Roll. 240 H.P.	Rollers	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Backhoe Loader	Tractors/Loaders/Backhoes	3	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Concrete Pump	Pumps	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Gas Engine Vibrator	Plate Compactors	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Rammer Tamper	Plate Compactors	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
S.P. Crane, 4x4, 12 Ton	Cranes	1	8	160	Off-Road	0.50	5.69	2.29	0.01	0.22	0.20	571.18	0.18	0.08	0.005	0.057	0.023	0.000	0.002	0.002	5.712	0.002	0.001	6.00
Lattice Boom Crane	Cranes	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Water Truck, 3000 gallon	--	1	0	0	On-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Jan-21	**TOTAL**			**160.00**		**0.50**	**5.69**	**2.29**	**0.01**	**0.22**	**0.20**	**571.18**	**0.18**	**0.08**	**0.01**	**0.06**	**0.02**	**0.00**	**0.00**	**0.00**	**5.71**	**0.00**	**0.00**	**6.00**
Feb-21																								
Brush Chipper, 130 H.P.	Other Construction Equipment	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Crawler Loader, 3 C.Y.	Crawler Tractors	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Chain Saws (gas)	Concrete/Industrial Saws	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Stump Chipper	Other Construction Equipment	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Bull Dozer, 200 H.P.	Rubber Tired Dozers	2	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Front end loader, wheel mounted, 3 C.Y. buc	Rubber Tired Loaders	2	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Dump Truck, 12 C.Y., 400 H.P.	Off-Highway Trucks	2	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Sheepsft Roll. 240 H.P.	Rollers	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Backhoe Loader	Tractors/Loaders/Backhoes	3	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Concrete Pump	Pumps	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Gas Engine Vibrator	Plate Compactors	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Rammer Tamper	Plate Compactors	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
S.P. Crane, 4x4, 12 Ton	Cranes	1	8	160	Off-Road	0.50	5.69	2.29	0.01	0.22	0.20	571.18	0.18	0.08	0.005	0.057	0.023	0.000	0.002	0.002	5.712	0.002	0.001	6.00
Lattice Boom Crane	Cranes	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Water Truck, 3000 gallon	--	1	0	0	On-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Feb-21	**TOTAL**			**160.00**		**0.50**	**5.69**	**2.29**	**0.01**	**0.22**	**0.20**	**571.18**	**0.18**	**0.08**	**0.01**	**0.06**	**0.02**	**0.00**	**0.00**	**0.00**	**5.71**	**0.00**	**0.00**	**6.00**
Mar-21																								
Brush Chipper, 130 H.P.	Other Construction Equipment	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Crawler Loader, 3 C.Y.	Crawler Tractors	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Chain Saws (gas)	Concrete/Industrial Saws	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Stump Chipper	Other Construction Equipment	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Bull Dozer, 200 H.P.	Rubber Tired Dozers	2	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Front end loader, wheel mounted, 3 C.Y. buc	Rubber Tired Loaders	2	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Dump Truck, 12 C.Y., 400 H.P.	Off-Highway Trucks	2	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Sheepsft Roll. 240 H.P.	Rollers	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Backhoe Loader	Tractors/Loaders/Backhoes	3	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Concrete Pump	Pumps	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Gas Engine Vibrator	Plate Compactors	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Rammer Tamper	Plate Compactors	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
S.P. Crane, 4x4, 12 Ton	Cranes	1	8	160	Off-Road	0.50	5.69	2.29	0.01	0.22	0.20	571.18	0.18	0.08	0.005	0.057	0.023	0.000	0.002	0.002	5.712	0.002	0.001	6.00
Lattice Boom Crane	Cranes	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Water Truck, 3000 gallon	--	1	0	0	On-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Mar-21	**TOTAL**			**160.00**		**0.50**	**5.69**	**2.29**	**0.01**	**0.22**	**0.20**	**571.18**	**0.18**	**0.08**	**0.01**	**0.06**	**0.02**	**0.00**	**0.00**	**0.00**	**5.71**	**0.00**	**0.00**	**6.00**
Apr-21																								
Brush Chipper, 130 H.P.	Other Construction Equipment	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Crawler Loader, 3 C.Y.	Crawler Tractors	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Chain Saws (gas)	Concrete/Industrial Saws	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Stump Chipper	Other Construction Equipment	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Bull Dozer, 200 H.P.	Rubber Tired Dozers	2	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Front end loader, wheel mounted, 3 C.Y. buc	Rubber Tired Loaders	2	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Dump Truck, 12 C.Y., 400 H.P.	Off-Highway Trucks	2	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00

LADWP North Hollywood Central Treatment Project
Off-Road Equipment Emissions

Equipment - Project-Specific Name	Equipment	# of Units	Hrs/Day	Hours per Month	Category	Daily Emissions (lb/day)									Monthly Emissions (tons/month)									
						ROG	NOx	CO	SOx	PM10	PM2.5	CO2	CH4	N2O	ROG	NOx	CO	SOx	PM10	PM2.5	CO2	CH4	N2O	CO2E
Sheepsft Roll. 240 H.P.	Rollers	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Backhoe Loader	Tractors/Loaders/Backhoes	3	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Concrete Pump	Pumps	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Gas Engine Vibrator	Plate Compactors	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Rammer Tamper	Plate Compactors	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
S.P. Crane, 4x4, 12 Ton	Cranes	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Lattice Boom Crane	Cranes	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Water Truck, 3000 gallon	--	1	0	0	On-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Apr-21	**TOTAL**			**0.00**		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
May-21																								
Brush Chipper, 130 H.P.	Other Construction Equipment	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Crawler Loader, 3 C.Y.	Crawler Tractors	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Chain Saws (gas)	Concrete/Industrial Saws	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Stump Chipper	Other Construction Equipment	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Bull Dozer, 200 H.P.	Rubber Tired Dozers	2	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Front end loader, wheel mounted, 3 C.Y. buc	Rubber Tired Loaders	2	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Dump Truck, 12 C.Y., 400 H.P.	Off-Highway Trucks	2	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Sheepsft Roll. 240 H.P.	Rollers	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Backhoe Loader	Tractors/Loaders/Backhoes	3	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Concrete Pump	Pumps	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Gas Engine Vibrator	Plate Compactors	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Rammer Tamper	Plate Compactors	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
S.P. Crane, 4x4, 12 Ton	Cranes	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Lattice Boom Crane	Cranes	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Water Truck, 3000 gallon	--	1	0	0	On-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
May-21	**TOTAL**			**0.00**		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Jun-21																								
Brush Chipper, 130 H.P.	Other Construction Equipment	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Crawler Loader, 3 C.Y.	Crawler Tractors	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Chain Saws (gas)	Concrete/Industrial Saws	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Stump Chipper	Other Construction Equipment	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Bull Dozer, 200 H.P.	Rubber Tired Dozers	2	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Front end loader, wheel mounted, 3 C.Y. buc	Rubber Tired Loaders	2	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Dump Truck, 12 C.Y., 400 H.P.	Off-Highway Trucks	2	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Sheepsft Roll. 240 H.P.	Rollers	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Backhoe Loader	Tractors/Loaders/Backhoes	3	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Concrete Pump	Pumps	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Gas Engine Vibrator	Plate Compactors	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Rammer Tamper	Plate Compactors	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
S.P. Crane, 4x4, 12 Ton	Cranes	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Lattice Boom Crane	Cranes	1	0	0	Off-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Water Truck, 3000 gallon	--	1	0	0	On-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Jun-21	**TOTAL**			**0.00**		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
ANNUAL SUMMARY - MAXIMUM						**0.50**	**5.69**	**2.29**	**0.01**	**0.22**	**0.20**	**571.18**	**0.18**	**0.08**	0.01	0.06	0.02	0.00	0.00	0.00	5.71	0.00	0.00	6.00
ANNUAL TOTAL - TONS															0.02	0.17	0.07	0.00	0.01	0.01	17.14	0.01	0.00	18.00
ANNUAL TOTAL - METRIC TONS																					**18.89**	**0.01**	**0.00**	**19.84**

LADWP North Hollywood Central Treatment Project

EMFAC2017 Emission Factors - Specific Speeds - Onsite Vehicle Trips

EMFAC2017 (v1.0.2) Emission Rates
Region Type: Sub-Area
Region: Los Angeles (SC)
Calendar Year: 2019
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for VMT, g/mile for RUNEX, PMBW and PMTW

Emission Factors: Summary

Vehicle Class(es)	Calendar Year	Model Year	Speed	Fuel	Miles traveled in 1 hour	ROG	NOx	CO	SOx	PM10	PM2.5	CO2	CH4	N2O	ROG	NOx	CO	SOx	PM10	PM2.5	CO2	CH4	N2O
						Running Exhaust (grams/mile)									Hourly Running Exhaust (lb/hour assuming 10 miles per hour)								
HHDT	2019	Aggregated	5, 10, 15 MPH (weighted)	Diesel	10	0.853	13.100	2.546	0.027	0.093	0.089	3,231.172	0.005	0.000	0.019	0.289	0.056	0.001	0.002	0.002	71.231	0.000	0.000

Emission Factors: Calculations

Region	CalYr	VehClass	MdlYr	Speed	Fuel	VMT miles/day	ROG_ RUNEX g/mile	NOx_ RUNEX g/mile	CO_ RUNEX g/mile	SOx_ RUNEX g/mile	PM10_ RUNEX g/mile	PM2_ 5_ RUNEX g/mile	CO2_ RUNEX g/mile	CH4_ RUNEX* g/mile	N2O Running* g/mile
2019															
Los Angeles (SC)	2019	HHDT	Aggregated	5	DSL	36,840	1.229	18.356	3.901	0.035	0.092	0.088	4,261.797		0.6698951
Los Angeles (SC)	2019	HHDT	Aggregated	10	DSL	80,833	0.974	15.386	2.829	0.029	0.095	0.091	3,704.450		0.582288
Los Angeles (SC)	2019	HHDT	Aggregated	15	DSL	128,966	0.670	10.167	1.981	0.024	0.093	0.089	2,640.125		0.4149909
						HHDT Composite - D only - 5 - 15 MPH	**0.853**	**13.100**	**2.546**	**0.027**	**0.093**	**0.089**	**3231.172**	**0.005**	**0**
Notes:															

CalYr	Calendar Year
VehClass	vehicle class
MdlYr	model year
VMT	vehicle miles traveled
RUNEX	running exhaust

*CH4 Running Emission Factor from the Climate Registry 2017 Default Emission Factors

LADWP North Hollywood Central Treatment Project
Construction Vehicle Emissions Summary

	Daily Emissions (lb/day)									Monthly Emissions (tons/month)									
	ROG	**NOx**	**CO**	**SOx**	**PM10**	**PM2.5**	**CO2**	**CH4**	**N2O**	**ROG**	**NOx**	**CO**	**SOx**	**PM10**	**PM2.5**	**CO2**	**CH4**	**N2O**	**CO2E**
2019																			
JANUARY 2019	0.04	0.48	1.04	0.00	0.06	0.03	393.67	0.02	0.03	0.00	0.00	0.01	0.00	0.00	0.00	3.70	0.00	0.00	3.77
FEBRUARY 2019	0.16	3.34	1.83	0.01	0.20	0.12	1339.28	0.03	0.16	0.00	0.03	0.02	0.00	0.00	0.00	12.22	0.00	0.00	12.65
MARCH 2019	0.11	1.77	2.20	0.01	0.15	0.08	1027.44	0.04	0.09	0.00	0.02	0.02	0.00	0.00	0.00	9.50	0.00	0.00	9.74
APRIL 2019	0.19	3.09	3.80	0.02	0.27	0.14	1787.50	0.08	0.15	0.00	0.03	0.04	0.00	0.00	0.00	16.92	0.00	0.00	17.37
MAY 2019	0.21	3.16	4.71	0.02	0.31	0.16	2040.06	0.09	0.16	0.00	0.03	0.05	0.00	0.00	0.00	19.63	0.00	0.00	20.10
JUNE 2019	0.16	1.94	4.45	0.02	0.25	0.12	1658.85	0.09	0.10	0.00	0.02	0.04	0.00	0.00	0.00	16.10	0.00	0.00	16.42
JULY 2019	0.18	2.01	5.28	0.02	0.28	0.13	1890.36	0.11	0.11	0.00	0.02	0.05	0.00	0.00	0.00	18.40	0.00	0.00	18.74
AUGUST 2019	0.17	1.97	4.75	0.02	0.26	0.13	1743.04	0.10	0.11	0.00	0.02	0.05	0.00	0.00	0.00	17.13	0.00	0.00	17.46
SEPTEMBER 2019	0.15	1.90	3.85	0.01	0.22	0.11	1490.47	0.08	0.10	0.00	0.02	0.04	0.00	0.00	0.00	14.44	0.00	0.00	14.74
OCTOBER 2019	0.22	3.56	4.62	0.02	0.32	0.16	2118.02	0.09	0.18	0.00	0.04	0.05	0.00	0.00	0.00	21.00	0.00	0.00	21.56
NOVEMBER 2019	0.22	3.53	4.24	0.02	0.30	0.16	2012.78	0.08	0.18	0.00	0.04	0.04	0.00	0.00	0.00	19.98	0.00	0.00	20.53
DECEMBER 2019	0.22	3.53	4.32	0.02	0.31	0.16	2033.83	0.09	0.18	0.00	0.04	0.04	0.00	0.00	0.00	20.16	0.00	0.00	20.71
2020																			
JANUARY 2020	0.26	4.38	4.96	0.02	0.37	0.19	2421.27	0.10	0.22	0.00	0.04	0.05	0.00	0.00	0.00	24.12	0.00	0.00	24.79
FEBRUARY 2020	0.26	4.37	4.74	0.02	0.36	0.19	2358.13	0.09	0.22	0.00	0.04	0.05	0.00	0.00	0.00	23.50	0.00	0.00	24.17
MARCH 2020	0.27	4.40	5.11	0.02	0.37	0.19	2463.36	0.10	0.22	0.00	0.04	0.05	0.00	0.00	0.00	24.56	0.00	0.00	25.24
APRIL 2020	0.20	2.79	5.02	0.02	0.30	0.15	2025.24	0.10	0.14	0.00	0.03	0.05	0.00	0.00	0.00	19.75	0.00	0.00	20.19
MAY 2020	0.23	3.22	5.38	0.02	0.34	0.17	2229.48	0.11	0.17	0.00	0.03	0.05	0.00	0.00	0.00	21.31	0.00	0.00	21.79
JUNE 2020	0.23	3.25	5.76	0.02	0.35	0.17	2334.72	0.12	0.17	0.00	0.03	0.06	0.00	0.00	0.00	22.42	0.00	0.00	22.90
JULY 2020	0.21	3.16	4.71	0.02	0.31	0.16	2040.06	0.09	0.16	0.00	0.03	0.05	0.00	0.00	0.00	19.76	0.00	0.00	20.23
AUGUST 2020	0.18	3.04	3.13	0.02	0.24	0.13	1598.07	0.06	0.15	0.00	0.03	0.03	0.00	0.00	0.00	15.06	0.00	0.00	15.48
SEPTEMBER 2020	0.16	2.63	2.92	0.01	0.22	0.11	1435.92	0.06	0.13	0.00	0.03	0.03	0.00	0.00	0.00	13.92	0.00	0.00	14.31
OCTOBER 2020	0.15	2.59	2.47	0.01	0.20	0.11	1309.64	0.05	0.13	0.00	0.02	0.02	0.00	0.00	0.00	12.80	0.00	0.00	13.17
NOVEMBER 2020	0.09	1.34	1.83	0.01	0.12	0.06	823.20	0.04	0.07	0.00	0.01	0.02	0.00	0.00	0.00	7.80	0.00	0.00	7.99
DECEMBER 2020	0.08	1.33	1.68	0.01	0.12	0.06	781.10	0.03	0.07	0.00	0.01	0.02	0.00	0.00	0.00	7.37	0.00	0.00	7.57
2021																			
JANUARY 2021	0.04	0.48	1.04	0.00	0.06	0.03	393.67	0.02	0.03	0.00	0.00	0.01	0.00	0.00	0.00	3.56	0.00	0.00	3.63
FEBRUARY 2021	0.04	0.48	1.04	0.00	0.06	0.03	393.67	0.02	0.03	0.00	0.00	0.01	0.00	0.00	0.00	3.56	0.00	0.00	3.63
MARCH 2021	0.04	0.48	1.04	0.00	0.06	0.03	393.67	0.02	0.03	0.00	0.00	0.01	0.00	0.00	0.00	3.56	0.00	0.00	3.63
APRIL 2021	0.02	0.06	0.75	0.00	0.03	0.01	210.47	0.02	0.01	0.00	0.00	0.01	0.00	0.00	0.00	2.10	0.00	0.00	2.12
MAY 2021	0.02	0.06	0.75	0.00	0.03	0.01	210.47	0.02	0.01	0.00	0.00	0.01	0.00	0.00	0.00	2.10	0.00	0.00	2.12
JUNE 2021	0.02	0.06	0.75	0.00	0.03	0.01	210.47	0.02	0.01	0.00	0.00	0.01	0.00	0.00	0.00	2.10	0.00	0.00	2.12

SUMMARY - MAXIMUM DAILY	**0.27**	**4.40**	**5.76**	**0.02**	**0.37**	**0.19**	**2463.36**	**0.12**	**0.22**										
TOTAL - TONS										**0.04**	**0.65**	**0.97**	**0.00**	**0.06**	**0.03**	**418.56**	**0.02**	**0.03**	**428.85**
TOTAL - METRIC TONS																**461.38**	**0.02**	**0.04**	**472.73**

LADWP North Hollywood Central Treatment Project

Estimated Construction Truck Trips

	Activity			Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21
20 WD/Mo	**Truck Capacity**	**Qty**	**Unit**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**
Construction support trucks	--	--	--	15																													
Equipment delivery trucks	--	--	--		15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	25	25	30	25	15	15	15	15	15	15	15			
Debris Hauling Trucks	12	1,500	CY		125																												
Hauling trucks	12	1,857	LCY			52	52	52																									
Water trucks	--	3,000	Gallon	1	1	1	1	1																									
Rebar Delivery Trucks	20,000	709,200	Pound										6	6	6	6	6	6															
Concrete Truck with Pump	10	4,728	CY										79	79	79	79	79	79															
Trunkline	--	--	--				60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	40	40						
Wellfield	--	--	--													40	40	40	40	40	40	40	40	40	40								
Total Truck Roundtrips Per Month				16	141	68	128	128	75	75	75	75	160	160	160	200	200	200	115	125	125	130	125	115	115	55	55	15	15	15	0	0	0
Total Truck One-Way Trips Per Month				32	282	135	255	255	150	150	150	150	319	319	319	399	399	399	230	250	250	260	250	230	230	110	110	30	30	30	0	0	0
Avg. Daily Truck One-Way Trips				2	15	7	13	13	8	8	8	8	16	16	16	20	20	20	12	13	13	13	13	12	12	6	6	2	2	2	0	0	0

LADWP North Hollywood Central Treatment Project

Estimated Construction Worker Vehicle Trips

	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21
20 WD/Mo	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**
Mobilization	100																													
Demolition, Clearing, and grubbing																														
Demolition		60																												
Clearing and grubbing		7																												
Soil Stripping/Stockpiling, Spreading, & Compaction		90																												
Structural Excavation																														
Excavate, Load, Haul, Fine Grade, Backfill & Compact			318	414	224																									
Excavate for Piping																														
Excavate					87	87	58	44	15																					
Backfill & Compact					78	78	232	232	155																					
Excavation (Trunk Piping)				15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	8	8						
Backfill and Compaction (Trunk Piping)				40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	20	20						
Excavation (Well Field Piping)													17	17	17	17	17	26	26	17	17									
Backfill and Compaction (Well Field Piping)													45	45	45	45	45	68	68	45	45									
Excavate for Conduit																														
Excavate								3	5	5	3																			
Backfill & Compact								6	6	9	9																			
Install Piping																														
On-Site Piping					282	470	564	376	188																					
Trunk Piping				212	212	212	212	212	212	212	212	212	212	212	212	212	212	212	212	212	212	212	106	106						
Well Field Piping													45	45	45	45	45	68	68	45	45									
Install Conduit																														
On-Site Conduit								72	108	108	72																			
Concrete Reinforcement																														
Reinforcing Placement										296	237	237	178	119	119															
Concrete Placement																														
Concrete Placing, Pumped										201	201	302	402	402	503															
Equipment Installation																														
Set Equipment (On-Site)																				93	93	93	93	93	93	93	93			
Set Equipment (Well Field)																		101	101	51										
Structure & Misc.																														
Main Roof Framing																539	405	270	135											
Minor Framing																68	135	102	34											
Galvanized Building																40	198	315	237											
Construction Closeout																														
Punchlist, Commissioning, etc.																												100	100	100
Total Person-Days Per Month	100	157	318	681	938	902	1,121	1,000	744	886	789	806	954	895	996	1,021	1,112	1,217	936	518	467	360	227	227	93	93	93	100	100	100
Average Daily Field Personnel	5	8	16	34	47	45	56	50	37	44	39	40	48	45	50	51	56	61	47	26	23	18	11	11	5	5	5	5	5	5
Average Daily Office and Supervisory Personnel	8	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	8	8	8	8	5	5	5
Average Daily Personnel	13	18	26	44	57	55	66	60	47	54	49	50	58	55	60	61	66	71	57	36	33	28	21	19	13	13	13	10	10	10
Average Daily Worker One-Way Trips	26	36	52	88	114	110	132	120	94	109	99	101	115	110	120	122	131	142	114	72	67	56	43	39	25	25	25	20	20	20

LADWP North Hollywood Central Treatment Project
On-Road Vehicle Emission Factors

Vehicle - Project-Specific Name	Vehicle - EMFAC Category	Calendar Year	Model Year	Speed	Fuel	Running Exhaust Emission Factors (g/veh-mile)									Fugitive Dust Emission Factors (g/veh-mile)					
						ROG	NOx	CO	SOx	PM10	PM2.5	CO2	CH4	N2O	PM10 PMTW	PM10 PMBW	PM10 Paved Road	PM2.5 PMTW	PM2.5 PMBW	PM2.5 Paved Road
Year 2019																				
Trucks	HHDT & MHDT Composite	2019	Aggregated	Aggregated	Diesel	0.190	4.588	0.682	0.013	0.090	0.086	1361.418	0.005	0.214	0.027	0.087	0.004	0.007	0.037	0.001
Workers	LDA, LDT1 & LDT2 Composite	2019	Aggregated	Aggregated	Gas, Electric, & Diesel	0.025	0.088	1.137	0.003	0.002	0.002	318.230	0.024	0.008	0.008	0.037	0.001	0.002	0.016	0.000
Year 2020																				
Trucks	HHDT & MHDT Composite	2020	Aggregated	Aggregated	Diesel	0.153	4.073	0.563	0.013	0.072	0.069	1334.439	0.005	0.210	0.027	0.087	0.004	0.007	0.037	0.001
Workers	LDA, LDT1 & LDT2 Composite	2020	Aggregated	Aggregated	Gas, Electric, & Diesel	0.021	0.076	1.020	0.003	0.002	0.002	309.159	0.024	0.007	0.008	0.037	0.001	0.002	0.016	0.000
Year 2021																				
Trucks	HHDT & MHDT Composite	2021	Aggregated	Aggregated	Diesel	0.123	3.596	0.475	0.012	0.059	0.056	1304.305	0.005	0.205	0.027	0.087	0.004	0.007	0.037	0.001
Workers	LDA, LDT1 & LDT2 Composite	2021	Aggregated	Aggregated	Gas, Electric, & Diesel	0.018	0.065	0.925	0.003	0.002	0.002	300.227	0.024	0.006	0.008	0.037	0.001	0.002	0.016	0.000

Reference:

Emission Factors: EMFAC2017

LADWP North Hollywood Central Treatment Project
On-Road Off-Site Construction Vehicle Emissions

Trip Type	Vehicle Class	Activity Days per Month	Trucks			Miles per Trip	Category
			Round Trips per Month	One-Way Trips per Month	Average One-Way Trips per Day		
Jan-19							
Trucks	HHDT & MHDT	20	16	32	2	20	On-Road
Workers	LDA, LDT1 & LDT2	20	260	520	26	15	On-Road
MONTH SUBTOTAL							
Feb-19							
Trucks	HHDT & MHDT	20	141	282	16	20	On-Road
Workers	LDA, LDT1 & LDT2	20	357	714	36	15	On-Road
MONTH SUBTOTAL							
Mar-19							
Trucks	HHDT & MHDT	20	68	135	8	20	On-Road
Workers	LDA, LDT1 & LDT2	20	518	1036	52	15	On-Road
MONTH SUBTOTAL							
Apr-19							
Trucks	HHDT & MHDT	20	128	255	14	20	On-Road
Workers	LDA, LDT1 & LDT2	20	881	1762	90	15	On-Road
MONTH SUBTOTAL							
May-19							
Trucks	HHDT & MHDT	20	128	255	14	20	On-Road
Workers	LDA, LDT1 & LDT2	20	1,138	2276	114	15	On-Road
MONTH SUBTOTAL							
Jun-19							
Trucks	HHDT & MHDT	20	75	150	8	20	On-Road
Workers	LDA, LDT1 & LDT2	20	1,102	2204	112	15	On-Road
MONTH SUBTOTAL							
Jul-19							
Trucks	HHDT & MHDT	20	75	150	8	20	On-Road
Workers	LDA, LDT1 & LDT2	20	1,321	2642	134	15	On-Road
MONTH SUBTOTAL							
Aug-19							
Trucks	HHDT & MHDT	20	75	150	8	20	On-Road
Workers	LDA, LDT1 & LDT2	20	1,200	2400	120	15	On-Road
MONTH SUBTOTAL							
Sep-19							
Trucks	HHDT & MHDT	20	75	150	8	20	On-Road
Workers	LDA, LDT1 & LDT2	20	944	1888	96	15	On-Road
MONTH SUBTOTAL							
Oct-19							
Trucks	HHDT & MHDT	20	160	319	16	20	On-Road
Workers	LDA, LDT1 & LDT2	20	1,086	2172	110	15	On-Road
MONTH SUBTOTAL							
Nov-19							
Trucks	HHDT & MHDT	20	160	319	16	20	On-Road
Workers	LDA, LDT1 & LDT2	20	989	1978	100	15	On-Road
MONTH SUBTOTAL							
Dec-19							
Trucks	HHDT & MHDT	20	160	319	16	20	On-Road
Workers	LDA, LDT1 & LDT2	20	1,006	2012	102	15	On-Road
MONTH SUBTOTAL							
ANNUAL SUMMARY - MAXIMUM DAILY							
ANNUAL TOTAL - TONS							
ANNUAL TOTAL - METRIC TONS							

Trip Type	Daily Emissions (lb/day)																
	ROG	NOx	CO	SOx	PM10 Exhaust	PM10 PMTW	PM10 PMBW	PM10 Paved Road	TOTAL PM10	PM2.5 Exhaust	PM2.5 PMTW	PM2.5 PMBW	PM2.5 Paved Road	TOTAL PM2.5	CO2	CH4	N2O
Jan-19																	
Trucks	0.02	0.40	0.06	0.00	0.01	0.00	0.01	0.00	0.02	0.01	0.00	0.00	0.00	0.01	120.05	0.00	0.02
Workers	0.02	0.08	0.98	0.00	0.00	0.01	0.03	0.00	0.04	0.00	0.00	0.01	0.00	0.02	273.61	0.02	0.01
MONTH SUBTOTAL	**0.04**	**0.48**	**1.04**	**0.00**	**0.01**	**0.01**	**0.04**	**0.00**	**0.06**	**0.01**	**0.00**	**0.02**	**0.00**	**0.03**	**393.67**	**0.02**	**0.03**
Feb-19																	
Trucks	0.13	3.24	0.48	0.01	0.06	0.02	0.06	0.00	0.15	0.06	0.00	0.03	0.00	0.09	960.44	0.00	0.15
Workers	0.03	0.10	1.35	0.00	0.00	0.01	0.04	0.00	0.06	0.00	0.00	0.02	0.00	0.02	378.85	0.03	0.01
MONTH SUBTOTAL	**0.16**	**3.34**	**1.83**	**0.01**	**0.07**	**0.03**	**0.11**	**0.00**	**0.20**	**0.06**	**0.01**	**0.05**	**0.00**	**0.12**	**1339.28**	**0.03**	**0.16**
Mar-19																	
Trucks	0.07	1.62	0.24	0.00	0.03	0.01	0.03	0.00	0.07	0.03	0.00	0.01	0.00	0.05	480.22	0.00	0.08
Workers	0.04	0.15	1.96	0.01	0.00	0.01	0.06	0.00	0.08	0.00	0.00	0.03	0.00	0.03	547.22	0.04	0.01
MONTH SUBTOTAL	**0.11**	**1.77**	**2.20**	**0.01**	**0.04**	**0.02**	**0.09**	**0.00**	**0.15**	**0.03**	**0.01**	**0.04**	**0.00**	**0.08**	**1027.44**	**0.04**	**0.09**
Apr-19																	
Trucks	0.12	2.83	0.42	0.01	0.06	0.02	0.05	0.00	0.13	0.05	0.00	0.02	0.00	0.08	840.38	0.00	0.13
Workers	0.07	0.26	3.38	0.01	0.01	0.02	0.11	0.00	0.14	0.01	0.01	0.05	0.00	0.06	947.11	0.07	0.02
MONTH SUBTOTAL	**0.19**	**3.09**	**3.80**	**0.02**	**0.06**	**0.04**	**0.16**	**0.00**	**0.27**	**0.06**	**0.01**	**0.07**	**0.00**	**0.14**	**1787.50**	**0.08**	**0.15**
May-19																	
Trucks	0.12	2.83	0.42	0.01	0.06	0.02	0.05	0.00	0.13	0.05	0.00	0.02	0.00	0.08	840.38	0.00	0.13
Workers	0.09	0.33	4.29	0.01	0.01	0.03	0.14	0.00	0.18	0.01	0.01	0.06	0.00	0.08	1199.68	0.09	0.03
MONTH SUBTOTAL	**0.21**	**3.16**	**4.71**	**0.02**	**0.06**	**0.05**	**0.19**	**0.00**	**0.31**	**0.06**	**0.01**	**0.08**	**0.00**	**0.16**	**2040.06**	**0.09**	**0.16**
Jun-19																	
Trucks	0.07	1.62	0.24	0.00	0.03	0.01	0.03	0.00	0.07	0.03	0.00	0.01	0.00	0.05	480.22	0.00	0.08
Workers	0.09	0.33	4.21	0.01	0.01	0.03	0.14	0.00	0.18	0.01	0.01	0.06	0.00	0.07	1178.63	0.09	0.03
MONTH SUBTOTAL	**0.16**	**1.94**	**4.45**	**0.02**	**0.04**	**0.04**	**0.17**	**0.00**	**0.25**	**0.04**	**0.01**	**0.07**	**0.00**	**0.12**	**1658.85**	**0.09**	**0.10**
Jul-19																	
Trucks	0.07	1.62	0.24	0.00	0.03	0.01	0.03	0.00	0.07	0.03	0.00	0.01	0.00	0.05	480.22	0.00	0.08
Workers	0.11	0.39	5.04	0.01	0.01	0.04	0.16	0.00	0.21	0.01	0.01	0.07	0.00	0.09	1410.15	0.11	0.03
MONTH SUBTOTAL	**0.18**	**2.01**	**5.28**	**0.02**	**0.04**	**0.04**	**0.19**	**0.00**	**0.28**	**0.04**	**0.01**	**0.08**	**0.00**	**0.13**	**1890.36**	**0.11**	**0.11**
Aug-19																	
Trucks	0.07	1.62	0.24	0.00	0.03	0.01	0.03	0.00	0.07	0.03	0.00	0.01	0.00	0.05	480.22	0.00	0.08
Workers	0.10	0.35	4.51	0.01	0.01	0.03	0.15	0.00	0.19	0.01	0.01	0.06	0.00	0.08	1262.82	0.10	0.03
MONTH SUBTOTAL	**0.17**	**1.97**	**4.75**	**0.02**	**0.04**	**0.04**	**0.18**	**0.00**	**0.26**	**0.04**	**0.01**	**0.08**	**0.00**	**0.13**	**1743.04**	**0.10**	**0.11**
Sep-19																	
Trucks	0.07	1.62	0.24	0.00	0.03	0.01	0.03	0.00	0.07	0.03	0.00	0.01	0.00	0.05	480.22	0.00	0.08
Workers	0.08	0.28	3.61	0.01	0.01	0.03	0.12	0.00	0.15	0.01	0.01	0.05	0.00	0.06	1010.25	0.08	0.02
MONTH SUBTOTAL	**0.15**	**1.90**	**3.85**	**0.01**	**0.04**	**0.03**	**0.15**	**0.00**	**0.22**	**0.04**	**0.01**	**0.06**	**0.00**	**0.11**	**1490.47**	**0.08**	**0.10**
Oct-19																	
Trucks	0.13	3.24	0.48	0.01	0.06	0.02	0.06	0.00	0.15	0.06	0.00	0.03	0.00	0.09	960.44	0.00	0.15
Workers	0.09	0.32	4.14	0.01	0.01	0.03	0.13	0.00	0.17	0.01	0.01	0.06	0.00	0.07	1157.58	0.09	0.03
MONTH SUBTOTAL	**0.22**	**3.56**	**4.62**	**0.02**	**0.07**	**0.05**	**0.19**	**0.01**	**0.32**	**0.07**	**0.01**	**0.08**	**0.00**	**0.16**	**2118.02**	**0.09**	**0.18**
Nov-19																	
Trucks	0.13	3.24	0.48	0.01	0.06	0.02	0.06	0.00	0.15	0.06	0.00	0.03	0.00	0.09	960.44	0.00	0.15
Workers	0.08	0.29	3.76	0.01	0.01	0.03	0.12	0.00	0.16	0.01	0.01	0.05	0.00	0.07	1052.35	0.08	0.03
MONTH SUBTOTAL	**0.22**	**3.53**	**4.24**	**0.02**	**0.07**	**0.05**	**0.18**	**0.00**	**0.30**	**0.07**	**0.01**	**0.08**	**0.00**	**0.16**	**2012.78**	**0.08**	**0.18**
Dec-19																	
Trucks	0.13	3.24	0.48	0.01	0.06	0.02	0.06	0.00	0.15	0.06	0.00	0.03	0.00	0.09	960.44	0.00	0.15
Workers	0.08	0.30	3.83	0.01	0.01	0.03	0.12	0.00	0.16	0.01	0.01	0.05	0.00	0.07	1073.40	0.08	0.03
MONTH SUBTOTAL	**0.22**	**3.53**	**4.32**	**0.02**	**0.07**	**0.05**	**0.19**	**0.00**	**0.31**	**0.07**	**0.01**	**0.08**	**0.00**	**0.16**	**2033.83**	**0.09**	**0.18**
ANNUAL SUMMARY - MAXIMUM DAILY	**0.22**	**3.56**	**5.28**	**0.02**	**0.07**	**0.05**	**0.19**	**0.01**	**0.32**	**0.07**	**0.01**	**0.08**	**0.00**	**0.16**	**2118.02**	**0.11**	**0.18**
ANNUAL TOTAL - TONS																	
ANNUAL TOTAL - METRIC TONS																	

Trip Type	Monthly Emissions (tons/month)																	
	ROG	NOx	CO	SOx	PM10	PM10 PMTW	PM10 PMBW	PM10 Paved Road	TOTAL PM10	PM2.5 Exhaust	PM2.5 PMTW	PM2.5 PMBW	PM2.5 Paved Road	TOTAL PM2.5	CO2	CH4	N2O	CO2E
Jan-19																		
Trucks	0.000	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.960	0.000	0.000	1.006
Workers	0.000	0.001	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.736	0.000	0.000	2.761
MONTH SUBTOTAL	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**3.70**	**0.00**	**0.00**	**3.77**
Feb-19																		
Trucks	0.001	0.029	0.004	0.000	0.001	0.001	0.000	0.000	0.001	0.001	0.000	0.000	0.000	0.001	8.464	0.000	0.001	8.861
Workers	0.000	0.001	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	3.757	0.000	0.000	3.791
MONTH SUBTOTAL	**0.00**	**0.03**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**12.22**	**0.00**	**0.00**	**12.65**
Mar-19																		
Trucks	0.001	0.014	0.002	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	4.052	0.000	0.001	4.242
Workers	0.000	0.002	0.019	0.000	0.000	0.001	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	5.451	0.000	0.000	5.500
MONTH SUBTOTAL	**0.00**	**0.02**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**9.50**	**0.00**	**0.00**	**9.74**
Apr-19																		
Trucks	0.001	0.026	0.004	0.000	0.001	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.001	7.654	0.000	0.001	8.013
Workers	0.001	0.003	0.033	0.000	0.000	0.001	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.001	9.271	0.001	0.000	9.355
MONTH SUBTOTAL	**0.00**	**0.03**	**0.04**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**16.92**	**0.00**	**0.00**	**17.37**
May-19																		
Trucks	0.001	0.026	0.004	0.000	0.001	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.001	7.654	0.000	0.001	8.013
Workers	0.001	0.003	0.043	0.000	0.000	0.001	0.000	0.000	0.002	0.000	0.001	0.000	0.000	0.001	11.976	0.001	0.000	12.084
MONTH SUBTOTAL	**0.00**	**0.03**	**0.05**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**19.63**	**0.00**	**0.00**	**20.10**
Jun-19																		
Trucks	0.001	0.015	0.002	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	4.502	0.000	0.001	4.713
Workers	0.001	0.003	0.041	0.000	0.000	0.001	0.000	0.000	0.002	0.000	0.001	0.000	0.000	0.001	11.597	0.001	0.000	11.702
MONTH SUBTOTAL	**0.00**	**0.02**	**0.04**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**16.10**	**0.00**	**0.00**	**16.42**
Jul-19																		
Trucks	0.001	0.015	0.002	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	4.502	0.000	0.001	4.713
Workers	0.001	0.004	0.050	0.000	0.000	0.002	0.000	0.000	0.002	0.000	0.001	0.000	0.000	0.001	13.902	0.001	0.000	14.027
MONTH SUBTOTAL	**0.00**	**0.02**	**0.05**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**18.40**	**0.00**	**0.00**	**18.74**
Aug-19																		
Trucks	0.001	0.015	0.002	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	4.502	0.000	0.001	4.713
Workers	0.001	0.003	0.045	0.000	0.000	0.001	0.000	0.000	0.002	0.000	0.001	0.000	0.000	0.001	12.628	0.001	0.000	12.742
MONTH SUBTOTAL	**0.00**	**0.02**	**0.05**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**17.13**	**0.00**	**0.00**	**17.46**
Sep-19																		
Trucks	0.001	0.015	0.002	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	4.502	0.000	0.001	4.713
Workers	0.001	0.003	0.035	0.000	0.000	0.001	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.001	9.934	0.001	0.000	10.024
MONTH SUBTOTAL	**0.00**	**0.02**	**0.04**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**14.44**	**0.00**	**0.00**	**14.74**
Oct-19																		
Trucks	0.001	0.032	0.005	0.000	0.001	0.001	0.000	0.000	0.001	0.001	0.000	0.000	0.000	0.001	9.575	0.000	0.002	10.024
Workers	0.001	0.003	0.041	0.000	0.000	0.001	0.000	0.000	0.001	0.000	0.001	0.000	0.000	0.001	11.429	0.001	0.000	11.532
MONTH SUBTOTAL	**0.00**	**0.04**	**0.05**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**21.00**	**0.00**	**0.00**	**21.56**
Nov-19																		
Trucks	0.001	0.032	0.005	0.000	0.001	0.001	0.000	0.000	0.001	0.001	0.000	0.000	0.000	0.001	9.575	0.000	0.002	10.024
Workers	0.001	0.003	0.037	0.000	0.000	0.001	0.000	0.000	0.001	0.000	0.001	0.000	0.000	0.001	10.408	0.001	0.000	10.502
MONTH SUBTOTAL	**0.00**	**0.04**	**0.04**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**19.98**	**0.00**	**0.00**	**20.53**
Dec-19																		
Trucks	0.001	0.032	0.005	0.000	0.001	0.001	0.000	0.000	0.001	0.001	0.000	0.000	0.000	0.001	9.575	0.000	0.002	10.024
Workers	0.001	0.003	0.038	0.000	0.000	0.001	0.000	0.000	0.001	0.000	0.001	0.000	0.000	0.001	10.587	0.001	0.000	10.682
MONTH SUBTOTAL	**0.00**	**0.04**	**0.04**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**20.16**	**0.00**	**0.00**	**20.71**
ANNUAL SUMMARY - MAXIMUM DAILY																		
ANNUAL TOTAL - TONS	**0.02**	**0.29**	**0.44**	**0.00**	**0.01**	**0.02**	**0.00**	**0.00**	**0.03**	**0.01**	**0.01**	**0.00**	**0.00**	**0.01**	**189.19**	**0.01**	**0.01**	**193.76**
ANNUAL TOTAL - METRIC TONS															**208.55**	**0.01**	**0.02**	**213.59**

LADWP North Hollywood Central Treatment Project
On-Road Off-Site Construction Vehicle Emissions

Trip Type	Vehicle Class	Activity Days per Month	Trucks			Miles per Trip	Category	Daily Emissions (lb/day)																	Monthly Emissions (tons/month)																	
			Round Trips per Month	One-Way Trips per Month	Average One-Way Trips per Day			ROG	NOx	CO	SOx	PM10 Exhaust	PM10 PMTW	PM10 PMBW	PM10 Paved Road	TOTAL PM10	PM2.5 Exhaust	PM2.5 PMTW	PM2.5 PMBW	PM2.5 Paved Road	TOTAL PM2.5	CO2	CH4	N2O	ROG	NOx	CO	SOx	PM10	PM10 PMTW	PM10 PMBW	PM10 Paved Road	TOTAL PM10	PM2.5 Exhaust	PM2.5 PMTW	PM2.5 PMBW	PM2.5 Paved Road	TOTAL PM2.5	CO2	CH4	N2O	CO2E
Jan-20																																										
Trucks	HHDT & MHDT	20	200	399	20	20	On-Road	0.17	4.05	0.60	0.01	0.08	0.02	0.08	0.00	0.18	0.08	0.01	0.03	0.00	0.12	1200.55	0.00	0.19	0.002	0.040	0.006	0.000	0.001	0.001	0.000	0.000	0.002	0.001	0.000	0.000	0.000	0.001	11.976	0.000	0.002	12.538
Workers	LDA, LDT1 & LDT2	20	1,154	2308	116	15	On-Road	0.10	0.34	4.36	0.01	0.01	0.03	0.14	0.00	0.18	0.01	0.01	0.06	0.00	0.08	1220.72	0.09	0.03	0.001	0.003	0.043	0.000	0.000	0.001	0.000	0.000	0.002	0.000	0.001	0.000	0.000	0.001	12.144	0.001	0.000	12.254
MONTH SUBTOTAL								**0.26**	**4.38**	**4.96**	**0.02**	**0.09**	**0.05**	**0.22**	**0.01**	**0.37**	**0.08**	**0.01**	**0.09**	**0.00**	**0.19**	**2421.27**	**0.10**	**0.22**	**0.00**	**0.04**	**0.05**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**24.12**	**0.00**	**0.00**	**24.79**
Feb-20																																										
Trucks	HHDT & MHDT	20	200	399	20	20	On-Road	0.17	4.05	0.60	0.01	0.08	0.02	0.08	0.00	0.18	0.08	0.01	0.03	0.00	0.12	1200.55	0.00	0.19	0.002	0.040	0.006	0.000	0.001	0.001	0.000	0.000	0.002	0.001	0.000	0.000	0.000	0.001	11.976	0.000	0.002	12.538
Workers	LDA, LDT1 & LDT2	20	1,095	2190	110	15	On-Road	0.09	0.32	4.14	0.01	0.01	0.03	0.13	0.00	0.17	0.01	0.01	0.06	0.00	0.07	1157.58	0.09	0.03	0.001	0.003	0.041	0.000	0.000	0.001	0.000	0.000	0.002	0.000	0.001	0.000	0.000	0.001	11.523	0.001	0.000	11.627
MONTH SUBTOTAL								**0.26**	**4.37**	**4.74**	**0.02**	**0.09**	**0.05**	**0.21**	**0.01**	**0.36**	**0.08**	**0.01**	**0.09**	**0.00**	**0.19**	**2358.13**	**0.09**	**0.22**	**0.00**	**0.04**	**0.05**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**23.50**	**0.00**	**0.00**	**24.17**
Mar-20																																										
Trucks	HHDT & MHDT	20	200	399	20	20	On-Road	0.17	4.05	0.60	0.01	0.08	0.02	0.08	0.00	0.18	0.08	0.01	0.03	0.00	0.12	1200.55	0.00	0.19	0.002	0.040	0.006	0.000	0.001	0.001	0.000	0.000	0.002	0.001	0.000	0.000	0.000	0.001	11.976	0.000	0.002	12.538
Workers	LDA, LDT1 & LDT2	20	1,196	2392	120	15	On-Road	0.10	0.35	4.51	0.01	0.01	0.03	0.15	0.00	0.19	0.01	0.01	0.06	0.00	0.08	1262.82	0.10	0.03	0.001	0.003	0.045	0.000	0.000	0.001	0.000	0.000	0.002	0.000	0.001	0.000	0.000	0.001	12.586	0.001	0.000	12.700
MONTH SUBTOTAL								**0.27**	**4.40**	**5.11**	**0.02**	**0.09**	**0.06**	**0.22**	**0.01**	**0.37**	**0.08**	**0.01**	**0.10**	**0.00**	**0.19**	**2463.36**	**0.10**	**0.22**	**0.00**	**0.04**	**0.05**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**24.56**	**0.00**	**0.00**	**25.24**
Apr-20																																										
Trucks	HHDT & MHDT	20	115	230	12	20	On-Road	0.10	2.43	0.36	0.01	0.05	0.01	0.05	0.00	0.11	0.05	0.00	0.02	0.00	0.07	720.33	0.00	0.11	0.001	0.023	0.003	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.001	6.903	0.000	0.001	7.227
Workers	LDA, LDT1 & LDT2	20	1,221	2442	124	15	On-Road	0.10	0.36	4.66	0.01	0.01	0.03	0.15	0.00	0.20	0.01	0.01	0.06	0.00	0.08	1304.91	0.10	0.03	0.001	0.004	0.046	0.000	0.000	0.001	0.000	0.000	0.002	0.000	0.001	0.000	0.000	0.001	12.849	0.001	0.000	12.965
MONTH SUBTOTAL								**0.20**	**2.79**	**5.02**	**0.02**	**0.06**	**0.05**	**0.20**	**0.00**	**0.30**	**0.05**	**0.01**	**0.08**	**0.00**	**0.15**	**2025.24**	**0.10**	**0.14**	**0.00**	**0.03**	**0.05**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**19.75**	**0.00**	**0.00**	**20.19**
May-20																																										
Trucks	HHDT & MHDT	20	125	250	14	20	On-Road	0.12	2.83	0.42	0.01	0.06	0.02	0.05	0.00	0.13	0.05	0.00	0.02	0.00	0.08	840.38	0.00	0.13	0.001	0.025	0.004	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.001	7.504	0.000	0.001	7.856
Workers	LDA, LDT1 & LDT2	20	1,312	2624	132	15	On-Road	0.11	0.38	4.96	0.01	0.01	0.03	0.16	0.00	0.21	0.01	0.01	0.07	0.00	0.09	1389.10	0.11	0.03	0.001	0.004	0.049	0.000	0.000	0.002	0.000	0.000	0.002	0.000	0.001	0.000	0.000	0.001	13.807	0.001	0.000	13.932
MONTH SUBTOTAL								**0.23**	**3.22**	**5.38**	**0.02**	**0.07**	**0.05**	**0.21**	**0.01**	**0.34**	**0.06**	**0.01**	**0.09**	**0.00**	**0.17**	**2229.48**	**0.11**	**0.17**	**0.00**	**0.03**	**0.05**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**21.31**	**0.00**	**0.00**	**21.79**
Jun-20																																										
Trucks	HHDT & MHDT	20	125	250	14	20	On-Road	0.12	2.83	0.42	0.01	0.06	0.02	0.05	0.00	0.13	0.05	0.00	0.02	0.00	0.08	840.38	0.00	0.13	0.001	0.025	0.004	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.001	7.504	0.000	0.001	7.856
Workers	LDA, LDT1 & LDT2	20	1,417	2834	142	15	On-Road	0.12	0.41	5.34	0.01	0.01	0.04	0.17	0.00	0.22	0.01	0.01	0.07	0.00	0.09	1494.33	0.11	0.04	0.001	0.004	0.053	0.000	0.000	0.002	0.000	0.000	0.002	0.000	0.001	0.000	0.000	0.001	14.912	0.001	0.000	15.047
MONTH SUBTOTAL								**0.23**	**3.25**	**5.76**	**0.02**	**0.07**	**0.05**	**0.23**	**0.01**	**0.35**	**0.06**	**0.01**	**0.10**	**0.00**	**0.17**	**2334.72**	**0.12**	**0.17**	**0.00**	**0.03**	**0.06**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**22.42**	**0.00**	**0.00**	**22.90**
Jul-20																																										
Trucks	HHDT & MHDT	20	130	260	14	20	On-Road	0.12	2.83	0.42	0.01	0.06	0.02	0.05	0.00	0.13	0.05	0.00	0.02	0.00	0.08	840.38	0.00	0.13	0.001	0.026	0.004	0.000	0.001	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.001	7.804	0.000	0.001	8.170
Workers	LDA, LDT1 & LDT2	20	1,136	2272	114	15	On-Road	0.09	0.33	4.29	0.01	0.01	0.03	0.14	0.00	0.18	0.01	0.01	0.06	0.00	0.08	1199.68	0.09	0.03	0.001	0.003	0.043	0.000	0.000	0.001	0.000	0.000	0.002	0.000	0.001	0.000	0.000	0.001	11.955	0.001	0.000	12.063
MONTH SUBTOTAL								**0.21**	**3.16**	**4.71**	**0.02**	**0.06**	**0.05**	**0.19**	**0.00**	**0.31**	**0.06**	**0.01**	**0.08**	**0.00**	**0.16**	**2040.06**	**0.09**	**0.16**	**0.00**	**0.03**	**0.05**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**19.76**	**0.00**	**0.00**	**20.23**
Aug-20																																										
Trucks	HHDT & MHDT	20	125	250	14	20	On-Road	0.12	2.83	0.42	0.01	0.06	0.02	0.05	0.00	0.13	0.05	0.00	0.02	0.00	0.08	840.38	0.00	0.13	0.001	0.025	0.004	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.001	7.504	0.000	0.001	7.856
Workers	LDA, LDT1 & LDT2	20	718	1436	72	15	On-Road	0.06	0.21	2.71	0.01	0.01	0.02	0.09	0.00	0.11	0.00	0.00	0.04	0.00	0.05	757.69	0.06	0.02	0.001	0.002	0.027	0.000	0.000	0.001	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	7.556	0.001	0.000	7.624
MONTH SUBTOTAL								**0.18**	**3.04**	**3.13**	**0.02**	**0.06**	**0.04**	**0.14**	**0.00**	**0.24**	**0.06**	**0.01**	**0.06**	**0.00**	**0.13**	**1598.07**	**0.06**	**0.15**	**0.00**	**0.03**	**0.03**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**15.06**	**0.00**	**0.00**	**15.48**
Sep-20																																										
Trucks	HHDT & MHDT	20	115	230	12	20	On-Road	0.10	2.43	0.36	0.01	0.05	0.01	0.05	0.00	0.11	0.05	0.00	0.02	0.00	0.07	720.33	0.00	0.11	0.001	0.023	0.003	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.001	6.903	0.000	0.001	7.227
Workers	LDA, LDT1 & LDT2	20	667	1334	68	15	On-Road	0.06	0.20	2.56	0.01	0.01	0.02	0.08	0.00	0.11	0.00	0.00	0.04	0.00	0.04	715.60	0.05	0.02	0.001	0.002	0.025	0.000	0.000	0.001	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	7.019	0.001	0.000	7.083
MONTH SUBTOTAL								**0.16**	**2.63**	**2.92**	**0.01**	**0.05**	**0.03**	**0.13**	**0.00**	**0.22**	**0.05**	**0.01**	**0.06**	**0.00**	**0.11**	**1435.92**	**0.06**	**0.13**	**0.00**	**0.03**	**0.03**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**13.92**	**0.00**	**0.00**	**14.31**
Oct-20																																										
Trucks	HHDT & MHDT	20	115	230	12	20	On-Road	0.10	2.43	0.36	0.01	0.05	0.01	0.05	0.00	0.11	0.05	0.00	0.02	0.00	0.07	720.33	0.00	0.11	0.001	0.023	0.003	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.001	6.903	0.000	0.001	7.227
Workers	LDA, LDT1 & LDT2	20	560	1120	56	15	On-Road	0.05	0.16	2.11	0.01	0.00	0.01	0.07	0.00	0.09	0.00	0.00	0.03	0.00	0.04	589.32	0.04	0.01	0.000	0.002	0.021	0.000	0.000	0.001	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	5.893	0.000	0.000	5.946
MONTH SUBTOTAL								**0.15**	**2.59**	**2.47**	**0.01**	**0.05**	**0.03**	**0.11**	**0.00**	**0.20**	**0.05**	**0.01**	**0.05**	**0.00**	**0.11**	**1309.64**	**0.05**	**0.13**	**0.00**	**0.02**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**12.80**	**0.00**	**0.00**	**13.17**
Nov-20																																										
Trucks	HHDT & MHDT	20	55	110	6	20	On-Road	0.05	1.21	0.18	0.00	0.02	0.01	0.02	0.00	0.05	0.02	0.00	0.01	0.00	0.03	360.16	0.00	0.06	0.000	0.011	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	3.302	0.000	0.001	3.457
Workers	LDA, LDT1 & LDT2	20	427	854	44	15	On-Road	0.04	0.13	1.65	0.00	0.00	0.01	0.05	0.00	0.07	0.00	0.00	0.02	0.00	0.03	463.03	0.04	0.01	0.000	0.001	0.016	0.000	0.000	0.001	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	4.494	0.000	0.000	4.534
MONTH SUBTOTAL								**0.09**	**1.34**	**1.83**	**0.01**	**0.03**	**0.02**	**0.08**	**0.00**	**0.12**	**0.03**	**0.00**	**0.03**	**0.00**	**0.06**	**823.20**	**0.04**	**0.07**	**0.00**	**0.01**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**7.80**	**0.00**	**0.00**	**7.99**
Dec-20																																										
Trucks	HHDT & MHDT	20	55	110	6	20	On-Road	0.05	1.21	0.18	0.00	0.02	0.01	0.02	0.00	0.05	0.02	0.00	0.01	0.00	0.03	360.16	0.00	0.06	0.000	0.011	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	3.302	0.000	0.001	3.457
Workers	LDA, LDT1 & LDT2	20	387	774	40	15	On-Road	0.03	0.12	1.50	0.00	0.00	0.01	0.05	0.00	0.06	0.00	0.00	0.02	0.00	0.03	420.94	0.03	0.01	0.000	0.001	0.015	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	4.073	0.000	0.000	4.109
MONTH SUBTOTAL								**0.08**	**1.33**	**1.68**	**0.01**	**0.03**	**0.02**	**0.07**	**0.00**	**0.12**	**0.03**	**0.00**	**0.03**	**0.00**	**0.06**	**781.10**	**0.03**	**0.07**	**0.00**	**0.01**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**7.37**	**0.00**	**0.00**	**7.57**
ANNUAL SUMMARY - MAXIMUM DAILY								**0.27**	**4.40**	**5.76**	**0.02**	**0.09**	**0.06**	**0.23**	**0.01**	**0.37**	**0.08**	**0.01**	**0.10**	**0.00**	**0.19**	**2463.36**	**0.12**	**0.22**																		
ANNUAL TOTAL - TONS																									**0.02**	**0.35**	**0.47**	**0.00**	**0.01**	**0.02**	**0.00**	**0.00**	**0.03**	**0.01**	**0.01**	**0.00**	**0.00**	**0.02**	**212.37**	**0.01**	**0.02**	**217.83**
ANNUAL TOTAL - METRIC TONS																																							**234.09**	**0.01**	**0.02**	**240.12**
Jan-21																																										
Trucks	HHDT & MHDT	20	15	30	2	20	On-Road	0.02	0.40	0.06	0.00	0.01	0.00	0.01	0.00	0.02	0.01	0.00	0.00	0.00	0.01	120.05	0.00	0.02	0.000	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.900	0.000	0.000	0.943
Workers	LDA, LDT1 & LDT2	20	253	506	26	15	On-Road	0.02	0.08	0.98	0.00	0.00	0.01	0.03	0.00	0.04	0.00	0.00	0.01	0.00	0.02	273.61	0.02	0.01	0.000	0.001	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.662	0.000	0.000	2.687
MONTH SUBTOTAL								**0.04**	**0.48**	**1.04**	**0.00**	**0.01**	**0.01**	**0.04**	**0.00**	**0.06**	**0.01**	**0.00**	**0.02**	**0.00**	**0.03**	**393.67**	**0.02**	**0.03**	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**3.56**	**0.00**	**0.00**	**3.63**
Feb-21																																										
Trucks	HHDT & MHDT	20	15	30	2	20	On-Road	0.02	0.40	0.06	0.00	0.01	0.00	0.01	0.00	0.02	0.01	0.00	0.00	0.00	0.01	120.05	0.00	0.02	0.000	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.900	0.000	0.000	0.943
Workers	LDA, LDT1 & LDT2	20	253	506	26	15	On-Road	0.02	0.08	0.98	0.00	0.00	0.01	0.03	0.00	0.04	0.00	0.00	0.01	0.00	0.02	273.61	0.02	0.01	0.000	0.001	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.662	0.000	0.000	2.687
MONTH SUBTOTAL								**0.04**	**0.48**	**1.04**	**0.00**	**0.01**	**0.01**	**0.04**	**0.00**	**0.06**	**0.01**	**0.00**	**0.02**	**0.00**	**0.03**	**393.67**	**0.02**	**0.03**	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**3.56**	**0.00**	**0.00**	**3.63**
Mar-21																																										
Trucks	HHDT & MHDT	20	15	30	2	20	On-Road	0.02	0.40	0.06	0.00	0.01	0.00	0.01	0.00	0.02	0.01	0.00	0.00	0.00	0.01	120.05	0.00	0.02	0.000	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.900	0.000	0.000	0.943
Workers	LDA, LDT1 & LDT2	20	253	506	26	15	On-Road	0.02	0.08	0.98	0.00	0.00	0.01	0.03	0.00	0.04	0.00	0.00	0.01	0.00	0.02	273.61	0.02	0.01	0.000	0.001	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.662	0.000	0.000	2.687
MONTH SUBTOTAL								**0.04**	**0.48**	**1.04**	**0.00**	**0.01**	**0.01**	**0.04**	**0.00**	**0.06**	**0.01**	**0.00**	**0.02**	**0.00**	**0.03**	**393.67**	**0.02**	**0.03**	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**3.56**	**0.00**	**0.00**	**3.63**
Apr-21																																										
Trucks	HHDT & MHDT	20	0	0	0	20	On-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Workers	LDA, LDT1 & LDT2	20	200	400	20	15	On-Road	0.02	0.06	0.75	0.00	0.00	0.01	0.02	0.00	0.03	0.00	0.00	0.01	0.00	0.01	210.47	0.02	0.01	0.000	0.001	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.105	0.000	0.000	2.124
MONTH SUBTOTAL								**0.02**	**0.06**	**0.75**	**0.00**	**0.00**	**0.01**	**0.02**	**0.00**	**0.03**	**0.00**	**0.00**	**0.01**	**0.00**	**0.01**	**210.47**	**0.02**	**0.01**	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**2.10**	**0.00**	**0.00**	**2.12**
May-21																																										
Trucks	HHDT & MHDT	20	0	0	0	20	On-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Workers	LDA, LDT1 & LDT2	20	200	400	20	15	On-Road	0.02	0.06	0.75	0.00	0.00	0.01	0.02	0.00	0.03	0.00	0.00	0.01	0.00	0.01	210.47	0.02	0.01	0.000	0.001	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.105	0.000	0.000	2.124
MONTH SUBTOTAL								**0.02**	**0.06**	**0.75**	**0.00**	**0.00**	**0.01**	**0.02**	**0.00**	**0.03**	**0.00**	**0.00**	**0.01**	**0.00**	**0.01**	**210.47**	**0.02**	**0.01**	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**2.10**	**0.00**	**0.00**	**2.12**
Jun-21																																										
Trucks	HHDT & MHDT	20	0	0	0	20	On-Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Workers	LDA, LDT1 & LDT2	20	200	400	20	15	On-Road	0.02	0.06	0.75	0.00	0.00	0.01	0.02	0.00	0.03	0.00	0.00	0.01	0.00	0.01	210.47	0.02	0.01	0.000	0.001	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.105	0.000	0.000	2.124
MONTH SUBTOTAL								**0.02**	**0.06**	**0.75**	**0.00**	**0.00**	**0.01**	**0.02**	**0.00**	**0.03**	**0.00**	**0.00**	**0.01**	**0.00**	**0.01**	**210.47**	**0.02**	**0.01**	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**2.10**	**0.00**	**0.00**	**2.12**
ANNUAL SUMMARY - MAXIMUM DAILY								**0.04**	**0.48**	**1.04**	**0.00**	**0.01**	**0.01**	**0.04**	**0.00**	**0.06**	**0.01**	**0.00**	**0.02**	**0.00**	**0.03**	**393.67**	**0.02**	**0.03**																		
ANNUAL TOTAL - TONS																									**0.00**	**0.01**	**0.05**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**17.00**	**0.00**	**0.00**	**17.26**
ANNUAL TOTAL - METRIC TONS																																							**18.74**	**0.00**	**0.00**	**19.02**

LADWP North Hollywood Central Treatment Project
EMFAC2017 Emission Factors - Offsite Vehicle Trips

EMFAC2017 (v1.0.2) Emission Rates
Region Type: Sub-Area
Region: Los Angeles (SC)
Calendar Year: 2019, 2020, 2021
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for VMT, trips/day for Trips, g/mile for RUNEX, PMBW and PMTW, g/trip for STREX, HTSK and RUNLS, g/vehicle/day for IDLEX, RESTL and DIURN

Emission Factors: Summary

Vehicle Class(es)	Calendar Year	Model Year	Speed	Fuel	ROG	NOx	CO	SOx	PM10	PM2.5	CO2	CH4	N2O	PM10 PMTW	PM10 PMBW	PM2.5 PMTW	PM2.5 PMBW
					Running Exhaust (grams/mile)									B&TW (grams/mile)			
HHDT & MHDT Composite	2019	Aggregated	25 to 65 mph (weighted)	Diesel	0.190	4.588	0.682	0.013	0.090	0.086	1,361.418	0.005	0.214	0.027	0.087	0.007	0.037
LDA, LDT1 & LDT2 Composite	2019	Aggregated	25 to 65 mph (weighted)	Gas, Electric, & Diesel (weighted)	0.025	0.088	1.137	0.003	0.002	0.002	318.230	0.024	0.008	0.008	0.037	0.002	0.016
HHDT & MHDT Composite	2020	Aggregated	25 to 65 mph (weighted)	Diesel	0.153	4.073	0.563	0.013	0.072	0.069	1,334.439	0.005	0.210	0.027	0.087	0.007	0.037
LDA, LDT1 & LDT2 Composite	2020	Aggregated	25 to 65 mph (weighted)	Gas, Electric, & Diesel (weighted)	0.021	0.076	1.020	0.003	0.002	0.002	309.159	0.024	0.007	0.008	0.037	0.002	0.016
HHDT & MHDT Composite	2021	Aggregated	25 to 65 mph (weighted)	Diesel	0.123	3.596	0.475	0.012	0.059	0.056	1,304.305	0.005	0.205	0.027	0.087	0.007	0.037
LDA, LDT1 & LDT2 Composite	2021	Aggregated	25 to 65 mph (weighted)	Gas, Electric, & Diesel (weighted)	0.018	0.065	0.925	0.003	0.002	0.002	300.227	0.024	0.006	0.008	0.037	0.002	0.016

Emission Factors: Calculations

Region	CalYr	VehClass	MdlYr	Speed	Fuel	VMT	ROG_ RUNEX	NOx_ RUNEX	CO_ RUNEX	SOx_ RUNEX	PM10_ RUNEX	PM10_ PMTW	PM10_ PMBW	PM2_ 5_ RUNEX	PM2_ 5_ PMTW	PM2_ 5_ PMBW	CO2_ RUNEX	CH4_ RUNEX	N2O RUNEX
						miles/day	g/mile	g/mile	g/mile	g/mile	g/mile	g/mile	g/mile	g/mile	g/mile	g/mile	g/mile	g/mile	g/mile
2019																			
Los Angeles (SC)	2019	HHDT	Aggregated	Aggregated	DSL	6,393,903	0.186	5.150	0.702	0.015	0.077	0.036	0.061	0.074	0.009	0.026	1,559.880	0.005	0.245
Los Angeles (SC)	2019	MHDT	Aggregated	Aggregated	DSL	3,792,666	0.196	3.641	0.647	0.010	0.110	0.012	0.130	0.106	0.003	0.056	1,026.840	0.005	0.161
						HHDT & MHDT Composite - DSL only	**0.190**	**4.588**	**0.682**	**0.013**	**0.090**	**0.027**	**0.087**	**0.086**	**0.007**	**0.037**	**1361.418**	**0.005**	**0.214**
Los Angeles (SC)	2019	LDA	Aggregated	Aggregated	GAS	151,393,816	0.020	0.063	0.974	0.003	0.002	0.008	0.037	0.002	0.002	0.016	298.734	0.023	0.006
Los Angeles (SC)	2019	LDA	Aggregated	Aggregated	DSL	1,131,318	0.031	0.137	0.345	0.002	0.017	0.008	0.037	0.016	0.002	0.016	232.918	0.001	0.037
Los Angeles (SC)	2019	LDA	Aggregated	Aggregated	ELEC	1,868,211	0.000	0.000	0.000	0.000	0.000	0.008	0.037	0.000	0.002	0.016	0.000	0.000	0.000
Los Angeles (SC)	2019	LDT1	Aggregated	Aggregated	GAS	15,846,033	0.055	0.186	2.094	0.003	0.003	0.008	0.037	0.003	0.002	0.016	346.181	0.029	0.013
Los Angeles (SC)	2019	LDT1	Aggregated	Aggregated	DSL	8,765	0.231	1.211	1.277	0.005	0.174	0.008	0.037	0.166	0.002	0.016	480.009	0.001	0.075
Los Angeles (SC)	2019	LDT1	Aggregated	Aggregated	ELEC	40,707	0.000	0.000	0.000	0.000	0.000	0.008	0.037	0.000	0.002	0.016	0.000	0.000	0.000
Los Angeles (SC)	2019	LDT2	Aggregated	Aggregated	GAS	50,631,402	0.032	0.135	1.395	0.004	0.002	0.008	0.037	0.002	0.002	0.016	383.037	0.029	0.010
Los Angeles (SC)	2019	LDT2	Aggregated	Aggregated	DSL	284,823	0.026	0.063	0.188	0.003	0.009	0.008	0.037	0.008	0.002	0.016	318.695	0.001	0.050
Los Angeles (SC)	2019	LDT2	Aggregated	Aggregated	ELEC	220,572	0.000	0.000	0.000	0.000	0.000	0.008	0.037	0.000	0.002	0.016	0.000	0.000	0.000
						LDA, LDT1 & LDT2 Composite - GAS, ELEC & DSL	**0.025**	**0.088**	**1.137**	**0.003**	**0.002**	**0.008**	**0.037**	**0.002**	**0.002**	**0.016**	**318.230**	**0.024**	**0.008**
2020																			
Los Angeles (SC)	2020	HHDT	Aggregated	Aggregated	DSL	6,529,922	0.149	4.625	0.578	0.014	0.061	0.036	0.061	0.058	0.009	0.026	1,529.139	0.005	0.240
Los Angeles (SC)	2020	MHDT	Aggregated	Aggregated	DSL	3,916,494	0.159	3.153	0.537	0.010	0.090	0.012	0.130	0.086	0.003	0.056	1,009.818	0.005	0.159
						HHDT & MHDT Composite - DSL only	**0.153**	**4.073**	**0.563**	**0.013**	**0.072**	**0.027**	**0.087**	**0.069**	**0.007**	**0.037**	**1334.439**	**0.005**	**0.210**
Los Angeles (SC)	2020	LDA	Aggregated	Aggregated	GAS	150,964,605	0.017	0.054	0.878	0.003	0.002	0.008	0.037	0.002	0.002	0.016	291.474	0.023	0.006
Los Angeles (SC)	2020	LDA	Aggregated	Aggregated	DSL	1,219,039	0.028	0.115	0.332	0.002	0.014	0.008	0.037	0.013	0.002	0.016	226.600	0.001	0.036
Los Angeles (SC)	2020	LDA	Aggregated	Aggregated	ELEC	2,228,699	0.000	0.000	0.000	0.000	0.000	0.008	0.037	0.000	0.002	0.016	0.000	0.000	0.000
Los Angeles (SC)	2020	LDT1	Aggregated	Aggregated	GAS	16,293,151	0.046	0.160	1.845	0.003	0.003	0.008	0.037	0.003	0.002	0.016	337.541	0.029	0.011
Los Angeles (SC)	2020	LDT1	Aggregated	Aggregated	DSL	7,826	0.209	1.147	1.215	0.005	0.157	0.008	0.037	0.150	0.002	0.016	476.583	0.001	0.075
Los Angeles (SC)	2020	LDT1	Aggregated	Aggregated	ELEC	62,380	0.000	0.000	0.000	0.000	0.000	0.008	0.037	0.000	0.002	0.016	0.000	0.000	0.000
Los Angeles (SC)	2020	LDT2	Aggregated	Aggregated	GAS	51,063,338	0.027	0.115	1.248	0.004	0.002	0.008	0.037	0.002	0.002	0.016	369.856	0.029	0.009
Los Angeles (SC)	2020	LDT2	Aggregated	Aggregated	DSL	318,826	0.024	0.056	0.187	0.003	0.008	0.008	0.037	0.007	0.002	0.016	309.565	0.001	0.049
Los Angeles (SC)	2020	LDT2	Aggregated	Aggregated	ELEC	273,177	0.000	0.000	0.000	0.000	0.000	0.008	0.037	0.000	0.002	0.016	0.000	0.000	0.000
						LDA, LDT1 & LDT2 Composite - GAS, ELEC & DSL	**0.021**	**0.076**	**1.020**	**0.003**	**0.002**	**0.008**	**0.037**	**0.002**	**0.002**	**0.016**	**309.159**	**0.024**	**0.007**
2021																			
Los Angeles (SC)	2021	HHDT	Aggregated	Aggregated	DSL	6,673,865	0.122	4.167	0.496	0.014	0.051	0.036	0.061	0.048	0.009	0.026	1,495.885	0.005	0.235
Los Angeles (SC)	2021	MHDT	Aggregated	Aggregated	DSL	4,032,847	0.126	2.650	0.439	0.009	0.073	0.012	0.130	0.070	0.003	0.056	987.263	0.005	0.155
						HHDT & MHDT Composite - DSL only	**0.123**	**3.596**	**0.475**	**0.012**	**0.059**	**0.027**	**0.087**	**0.056**	**0.007**	**0.037**	**1304.305**	**0.005**	**0.205**
Los Angeles (SC)	2021	LDA	Aggregated	Aggregated	GAS	150,661,181	0.014	0.047	0.801	0.003	0.002	0.008	0.037	0.002	0.002	0.016	284.409	0.023	0.005
Los Angeles (SC)	2021	LDA	Aggregated	Aggregated	DSL	1,298,142	0.024	0.094	0.312	0.002	0.012	0.008	0.037	0.011	0.002	0.016	220.977	0.001	0.035
Los Angeles (SC)	2021	LDA	Aggregated	Aggregated	ELEC	2,654,203	0.000	0.000	0.000	0.000	0.000	0.008	0.037	0.000	0.002	0.016	0.000	0.000	0.000
Los Angeles (SC)	2021	LDT1	Aggregated	Aggregated	GAS	16,706,920	0.040	0.139	1.640	0.003	0.003	0.008	0.037	0.003	0.002	0.016	329.451	0.029	0.010
Los Angeles (SC)	2021	LDT1	Aggregated	Aggregated	DSL	7,198	0.201	1.097	1.171	0.004	0.151	0.008	0.037	0.144	0.002	0.016	472.778	0.001	0.074
Los Angeles (SC)	2021	LDT1	Aggregated	Aggregated	ELEC	99,623	0.000	0.000	0.000	0.000	0.000	0.008	0.037	0.000	0.002	0.016	0.000	0.000	0.000
Los Angeles (SC)	2021	LDT2	Aggregated	Aggregated	GAS	51,495,062	0.024	0.100	1.132	0.004	0.002	0.008	0.037	0.002	0.002	0.016	357.170	0.029	0.008
Los Angeles (SC)	2021	LDT2	Aggregated	Aggregated	DSL	350,364	0.024	0.051	0.189	0.003	0.007	0.008	0.037	0.006	0.002	0.016	301.095	0.001	0.047
Los Angeles (SC)	2021	LDT2	Aggregated	Aggregated	ELEC	363,985	0.000	0.000	0.000	0.000	0.000	0.008	0.037	0.000	0.002	0.016	0.000	0.000	0.000
						LDA, LDT1 & LDT2 Composite - GAS, ELEC & DSL	**0.018**	**0.065**	**0.925**	**0.003**	**0.002**	**0.008**	**0.037**	**0.002**	**0.002**	**0.016**	**300.227**	**0.024**	**0.006**

LADWP North Hollywood Central Treatment Project
Paved Road Emission Factors

Equation:

E = k × $(sL/2)^{0.91}$ × (W)1.02 [maximum day]

Where:

			Units
k	particle size multiplier (PM_{10})	0.00220	lb/VMT
k	particle size multiplier ($PM_{2.5}$)	0.00054	lb/VMT
sL	silt loading (2)	0.1	g/m^2
W	average weight (tons) of the vehcile traveling the road	2.4	tons

Notes/References:

k = Emission factors from CalEEMod2016.3.1 per AP-42, Section 13.2.1 (Paved Roads).

sL = Silt loading from CalEEMod2016.3.1

For daily emissions it is assumed to have no precipitation.

Trucks Evaluated:

EMFAC Definition	EMFAC Category	GVWR (pounds)	GVWR (tons)	
Heavy Heavy-Duty Truck	HHDT	>33,000	17	*Assumed 33,000 pounds*
Medium Heavy-Duty Truck	MHDT	14,001-33,000	8	*Assumed average of 14,001 & 33,000 pounds*
Composite Heavy & Medium	HHDT & MHDT	14,001-33,000+	13	*Assumed average of HHDT & MHDT pounds*

Source: EMFAC 2014

GVWR = Gross Vehicle Weight Rating

1 pound = 0.0005 US tons

Employee Vehicles Evaluated:

Employee Type	Average Weight (tons)
Workers	2.4

Reference:

Source: CalEEMod2016.3.1 (average vehicle weight = 2.4 tons)

Per AP-42, Section 13.2.1 (Paved Roads): The above equation calls for the average weight of all vehicles traveling the road. For example, if 99 percent of traffic on the road are 2 ton cars/trucks while the remaining 1 percent consists of 20 ton trucks, then the mean weight "W" is 2.2 tons. More specifically, the above equation is not intended to be used to calculate a separate emission factor for each vehicle weight class. Instead, only one emission factor should be calculated to represent the "fleet" average weight of all vehicles traveling the road.

Emission Factors (g/mile)

	PM10 Paved Road	**PM2.5 Paved Road**
Trucks	0.0037	0.0009
Workers	0.0007	0.0002

LADWP North Hollywood Central Treatment Project
Construction Fugitive Dust

Disturbed Area Fugitive Dust

Equations:

E_{PM10} = (0.051 x (S)^2.0 x F_{PM10}) x (As/Wb x 43,560/5,280)
$E_{PM2.5}$ = (0.051 x (S)^2.5 x $F_{PM2.5}$) x (As/Wb x 43,560/5,280)

Where:

E_{PM10} = PM_{10} emissions from ground disturbance (pounds of PM_{10})
$E_{PM2.5}$ = $PM_{2.5}$ emissions from ground disturbance (pounds of $PM_{2.5}$)
S = mean vehicle speed (mph); AP-42 default value is 7.1 mph
F_{PM10} = PM_{10} scaling factor; AP-42 default value is 0.6
$F_{PM2.5}$ = $PM_{2.5}$ scaling factor; AP-42 default value is 0.031
As = acreage of the grading site
Wb = blade width of grading equipment; CalEEMod default is 12 feet

Emissions Calculations:				**Days**	**Start**	**End**		
Facility	**Area (Acres)**	***Clearing/Grubbing; Fine Grading***		80	1-Feb-19	31-May-19		
NHC Treatment Plant	1.25	Equipment	Qty	Acres/8-hr day	Total Acres	Ft2	Total VMT	VMT/day
		Dozer	2	0.5	80	3,484,800	55.00	0.6875

Daily PM10 Emissions (lbs/day)*	0.41
Daily PM2.5 Emissions (lbs/day)*	0.06
Annual (2019) PM10 Emissions (tpy)*	0.02
Annual (2019) PM2.5 Emissions (tpy)*	0.00

*Includes watering 3x per day, SCAQMD Rule 403

Material Handling Fugitive Dust

Equations:

E = k*(0.0032)*(((U/5)^1.3)/((M/2)^1.4))*TP

Where:

E = Particulate emissions (in pounds) from truck loading/unloading
k = particle size multiplier; AP-42 default value is 0.35 for PM10 and 0.053 for PM2.5
U = mean wind speed (mph); default for LA County is 2.2 meter/sec = 4.9 mph
M = material moisture content; CalEEMod uses 12% (moisture content of cover) as default
TP = material throughput (tons)

Emissions Calculations:

Material Loading/Unloading	**Start**	**End**
Demo, Clearing and Grubbing	Feb-19	Feb-19
Duration (days)	Total CY	Total tonnage
20	4,177	5,280.42
Daily PM10 Emissions (lbs/day)	0.02	
Daily PM2.5 Emissions (lbs/day)	0.00	
Annual (2019) PM10 Emissions (tpy)	0.00	
Annual (2019) PM2.5 Emissions (tpy)	0.00	

Structural Excavation	Mar-19	May-19
Duration (days)	Total CY	Total tonnage
60	30,085	38,032.44
Daily PM10 Emissions (lbs/day)	0.06	
Daily PM2.5 Emissions (lbs/day)	0.01	
Annual (2019) PM10 Emissions (tpy)	0.00	
Annual (2019) PM2.5 Emissions (tpy)	0.00	

Excavate/Backfill for On-Site Piping	May-19	Sep-19
Duration (days)	Total CY	Total tonnage
100	38,618	48,819.57
Daily PM10 Emissions (lbs/day)	0.04	
Daily PM2.5 Emissions (lbs/day)	0.01	
Annual (2019) PM10 Emissions (tpy)	0.00	
Annual (2019) PM2.5 Emissions (tpy)	0.00	

Excavate/Backfill for Trunkline Piping	Apr-19	Dec-20
Duration (days)	Total CY	Total tonnage
420	39,112	49,444.07
Daily PM10 Emissions (lbs/day)	0.01	
Daily PM2.5 Emissions (lbs/day)	0.00	
Annual (2019) PM10 Emissions (tpy)	0.00	
Annual (2019) PM2.5 Emissions (tpy)	0.00	
Annual (2020) PM10 Emissions (tpy)	0.00	
Annual (2020) PM2.5 Emissions (tpy)	0.00	

Excavate/Backfill for Wellfield Piping	Jan-20	Sep-20
Duration (days)	Total CY	Total tonnage
180	22,370	28,279.40
Daily PM10 Emissions (lbs/day)	0.01	
Daily PM2.5 Emissions (lbs/day)	0.00	
Annual (2020) PM10 Emissions (tpy)	0.00	
Annual (2020) PM2.5 Emissions (tpy)	0.00	

Excavate for Conduit	Aug-19	Nov-19
Duration (days)	Total CY	Total tonnage
80	1,482	1,873.49
Daily PM10 Emissions (lbs/day)	0.00	
Daily PM2.5 Emissions (lbs/day)	0.00	
Annual (2019) PM10 Emissions (tpy)	0.00	
Annual (2019) PM2.5 Emissions (tpy)	0.00	

Material Handling Only
Worse-Case Day in May 2019
0.11 PM10 lbs/day
0.02 PM2.5 lbs/day

Annual Emissions - 2019
0.01 PM10 tpy
0.00 PM2.5 tpy

Annual Emissions - 2020
0.00 PM10 tpy
0.00 PM2.5 tpy

Disturbed Area + Material Handling Summary

PM10 Monthly (lb/day)		PM2.5 Monthly (lb/day)	
Feb-19	0.44	Feb-19	0.06
Mar-19	0.47	Mar-19	0.07
Apr-19	0.48	Apr-19	0.07
May-19	0.52	May-19	0.07
Jun-19	0.05	Jun-19	0.01
Jul-19	0.05	Jul-19	0.01
Aug-19	0.06	Aug-19	0.01
Sep-19	0.06	Sep-19	0.01
Oct-19	0.01	Oct-19	0.00
Nov-19	0.01	Nov-19	0.00
Dec-19	0.01	Dec-19	0.00
Jan-20	0.02	Jan-20	0.00
Feb-20	0.02	Feb-20	0.00
Mar-20	0.02	Mar-20	0.00
Apr-20	0.02	Apr-20	0.00
May-20	0.02	May-20	0.00
Jun-20	0.02	Jun-20	0.00
Jul-20	0.02	Jul-20	0.00
Aug-20	0.02	Aug-20	0.00
Sep-20	0.02	Sep-20	0.00
Oct-20	0.01	Oct-20	0.00
Nov-20	0.01	Nov-20	0.00
Dec-20	0.01	Dec-20	0.00

LADWP North Hollywood Central Treatment Project
Operational Emissions Summary

	Daily Emissions (lb/day)									Annual Emissions (tons/year)									
	ROG	NOx	CO	SOx	PM10	PM2.5	CO2	CH4	N2O	ROG	NOx	CO	SOx	PM10	PM2.5	CO2	CH4	N2O	CO2E
2021																			
SUMMARY - VEHICLES	0.09	2.26	0.84	0.01	0.14	0.07	983.83	0.02	0.13	0.00	0.05	0.03	0.00	0.00	0.00	22.57	0.00	0.00	23.38
SUMMARY - METRIC TONS - VEHICLES																24.88	0.00	0.00	25.78
SUMMARY - METRIC TONS - ELECTRICITY																2,780.54	0.10	0.02	2,789.59
TOTAL - METRIC TONS - VEHICLES + ELECTRICITY																2,805.42	0.10	0.02	2,815.37

LADWP North Hollywood Central Treatment Project

Operations -- On-Road Off-Site Vehicle Emissions

** Assumes all activities overlap in 2021 as worse-case scenario **

Trip Type	Vehicle Class	Activity Days per Month	Trucks				Miles per Trip	Category	Daily Emissions (lb/day)																	Annual Emissions (tons/year)																	
			Round Trips per Month	One-Way Trips per Month	Worse-Case Day - One-Way Trips	Worse-Case Year - One-Way Trips			ROG	NOx	CO	SOx	PM10 Exhaust	PM10 PMTW	PM10 PMBW	PM10 Paved Road	TOTAL PM10	PM2.5 Exhaust	PM2.5 PMTW	PM2.5 PMBW	PM2.5 Paved Road	TOTAL PM2.5	CO2	CH4	N2O	ROG	NOx	CO	SOx	PM10	PM10 PMTW	PM10 PMBW	PM10 Paved Road	TOTAL PM10	PM2.5 Exhaust	PM2.5 PMTW	PM2.5 PMBW	PM2.5 Paved Road	TOTAL PM2.5	CO2	CH4	N2O	CO2E
Hydrogen Peroxide Refilling (Monthly)																																											
Trucks	HHDT & MHDT	20	4	8	2	96	20	On-Road	0.01	0.32	0.04	0.00	0.01	0.00	0.01	0.00	0.02	0.00	0.00	0.00	0.00	0.01	115.02	0.00	0.02	0.000	0.008	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.760	0.000	0.000	2.890
Workers	LDA, LDT1 & LDT2	20	8	16	4	192	15	On-Road	0.00	0.01	0.12	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	39.71	0.00	0.00	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.953	0.000	0.000	0.961
ACTIVITY SUBTOTAL									**0.01**	**0.33**	**0.16**	**0.00**	**0.01**	**0.00**	**0.01**	**0.00**	**0.02**	**0.01**	**0.00**	**0.01**	**0.00**	**0.01**	**154.73**	**0.00**	**0.02**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**3.71**	**0.00**	**0.00**	**3.85**
UV Reactor Lamp Replacement (Every 20-Months)																																											
Trucks	HHDT & MHDT	20	5	10	2	10	20	On-Road	0.01	0.32	0.04	0.00	0.01	0.00	0.01	0.00	0.02	0.00	0.00	0.00	0.00	0.01	115.02	0.00	0.02	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.288	0.000	0.000	0.301
Workers	LDA, LDT1 & LDT2	20	10	20	4	20	15	On-Road	0.00	0.01	0.12	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	39.71	0.00	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.099	0.000	0.000	0.100
ACTIVITY SUBTOTAL									**0.01**	**0.33**	**0.16**	**0.00**	**0.01**	**0.00**	**0.01**	**0.00**	**0.02**	**0.01**	**0.00**	**0.01**	**0.00**	**0.01**	**154.73**	**0.00**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.39**	**0.00**	**0.00**	**0.40**
Carbon Replacement (Once Every 3-Years)																																											
Trucks	HHDT & MHDT	20	16	32	8	96	20	On-Road	0.04	1.27	0.17	0.00	0.02	0.01	0.03	0.00	0.06	0.02	0.00	0.01	0.00	0.04	460.07	0.00	0.07	0.000	0.008	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.760	0.000	0.000	2.890
Workers	LDA, LDT1 & LDT2	20	60	120	6	360	15	On-Road	0.00	0.01	0.18	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	59.57	0.00	0.00	0.000	0.000	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.787	0.000	0.000	1.802
ACTIVITY SUBTOTAL									**0.05**	**1.28**	**0.35**	**0.00**	**0.02**	**0.01**	**0.04**	**0.00**	**0.07**	**0.02**	**0.00**	**0.02**	**0.00**	**0.04**	**519.64**	**0.01**	**0.07**	**0.00**	**0.01**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**4.55**	**0.00**	**0.00**	**4.69**
Chlorine Cylinder Delivery (Every Other Day)																																											
Trucks	HHDT & MHDT	20	15	30	2	360	20	On-Road	0.01	0.32	0.04	0.00	0.01	0.00	0.01	0.00	0.02	0.00	0.00	0.00	0.00	0.01	115.02	0.00	0.02	0.001	0.029	0.004	0.000	0.000	0.000	0.001	0.000	0.001	0.000	0.000	0.000	0.000	0.001	10.352	0.000	0.002	10.838
Workers	LDA, LDT1 & LDT2	20	30	60	4	720	15	On-Road	0.00	0.01	0.12	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	39.71	0.00	0.00	0.000	0.001	0.011	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	3.574	0.000	0.000	3.603
ACTIVITY SUBTOTAL									**0.01**	**0.33**	**0.16**	**0.00**	**0.01**	**0.00**	**0.01**	**0.00**	**0.02**	**0.01**	**0.00**	**0.01**	**0.00**	**0.01**	**154.73**	**0.00**	**0.02**	**0.00**	**0.03**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**13.93**	**0.00**	**0.00**	**14.44**
ANNUAL SUMMARY - MAXIMUM DAILY									**0.09**	**2.26**	**0.84**	**0.01**	**0.04**	**0.02**	**0.08**	**0.00**	**0.14**	**0.04**	**0.01**	**0.03**	**0.00**	**0.07**	**983.83**	**0.02**	**0.13**																		
ANNUAL TOTAL - TONS																										**0.00**	**0.05**	**0.03**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**22.57**	**0.00**	**0.00**	**23.38**
ANNUAL TOTAL - METRIC TONS																																								**24.88**	**0.00**	**0.00**	**25.78**

APPENDIX B

Biological Letter Report

DUDEK

38 NORTH MARENGO
PASADENA, CALIFORNIA 91101
T: 626.204.9800

April 18, 2018 10649.31-04.1-01

Ms. Jane Hauptman
Environmental Planning and Assessment
Los Angeles Department of Water and Power
111 North Hope Street, Room 1044
Los Angeles, California 90012

Subject: Biology Letter Report for the Los Angeles Department of Water and Power (LADWP) North Hollywood Central Project, City of Los Angeles, California

Dear Ms. Hauptman:

This biological resources letter report documents the results of a general reconnaissance-level field survey conducted to provide a description of the current site conditions and analyze existing biological resources within and adjacent to the Los Angeles Department of Water and Power (LADWP) North Hollywood Central Project (project) pursuant to the California Environmental Quality Act (CEQA). For purposes of this assessment, the area investigated included the existing proposed project site and an area 500 feet from the project (referred to as the study area). The results of the biological reconnaissance survey conducted for the study area by Dudek on March 5, 2018 are provided herein.

1 PROJECT LOCATION AND EXISTING CONDITIONS

The proposed project is located on City-owned land in the neighborhoods of Sun Valley and North Hollywood in the City of Los Angeles, Los Angeles County, California. More specifically, the project site is located along Rinaldi-Toluca Well Field alignment and North Hollywood Pump Station facility, east of the Hollywood Freeway (State Route 170), south of Roscoe Boulevard, north of Vanowen Street, and southwest of the Interstate 5 (Figure 3.4-1; all figures are provided in the Initial Study/Mitigated Negative Declaration (IS/MND) for the project). The site is located in Section 6 and 31 in Township 2N, Range 14W and Section 1 and 36 in Township 2 North, Range 15 West in the U.S. Geological Service 7.5-minute series topographic Van Nuys quadrangle map. The project site is primarily bordered by residential development, but also consists of some recreation, commercial, and light manufacturing uses (Figure 3.4-1).

2 PROJECT DESCRIPTION

The LADWP North Hollywood Central Project (also referred to in this report as the project or proposed project) is proposed to address releases of 1,4-dioxane and certain volatile organic compounds (VOCs) in groundwater that have migrated and continue to migrate to the Rinaldi-Toluca Well Field. As such, LADWP is proposing to install treatment equipment capable of removing the 1,4-dioxane and VOCs to below established limits, as determined by the United States Environmental Protection Agency (USEPA) and the California State Water Resources Control Board Division of Drinking Water (DDW). This response action would minimize the spread of and remove contaminant mass from the groundwater basin, limit further degradation of the basin downgradient of the Rinaldi-Toluca wells, assist in the restoration of beneficial uses of the groundwater basin, and restore LADWP's capability to operate its existing Rinaldi-Toluca Well Field consistent with historical use and future need.

The proposed project requires a number of components necessary to reduce the identified contaminations in the water from the Rinaldi-Toluca remediation wells to below the applicable notification level (NL) and established maximum contaminant levels (MCLs). For purposes of this report, the project site includes the North Hollywood Pump Station and the Rinaldi-Toluca Well Field alignment (i.e., 150-foot right-of-way). A brief description of the components and general location of these components is provided below and illustrated in Figure 3.4-1.

- The primary treatment components of the proposed project (i.e., the remediation facilities and equipment) would be located at North Hollywood Pump Station located at 11805 Vanowen Boulevard in the North Hollywood community of Los Angeles. The North Hollywood Pump Station is approximately 3.5 acres in size.

- Modifications to five remediation wells (i.e., RT-13, RT-11, RT-1, RT-14, and RT-15) and installation of two sets of well purge water storage tanks, would be required along the Rinaldi-Toluca Well Field alignment. These storage tanks would be discharged to the sewer system; thus, new sewer laterals connecting the storage tanks to the existing sewer line along Laurel Canyon Boulevard would also be required.

- Flow from the five modified remediation wells (i.e., RT-13, RT-11, RT-1, RT-14, and RT-15) would need to be separated from the flow of the remainder of the Rinaldi-Toluca wells. As a result, the remediation wells would be disconnected from the existing Rinaldi-Toluca Well Field collector line, and a new 42-inch-diameter collector line would be installed to transfer water from the five remediation wells to the North Hollywood Pump Station treatment facilities.

3 REGULATORY CONTEXT

This section describes the regulatory framework relevant for this project.

3.1 Federal

Federal Endangered Species Act

The federal Endangered Species Act (FESA) of 1973 (16 U.S.C. 1531 et seq.), as amended, is administered by the U.S. Fish and Wildlife Service (USFWS) for most plant and animal species, and by the National Oceanic and Atmospheric Administration National Marine Fisheries Service for certain marine species. FESA is intended to provide a means to conserve the ecosystems upon which endangered and threatened species depend, and to provide programs for the conservation of those species, thus preventing extinction of plants and wildlife. FESA defines an endangered species as "any species that is in danger of extinction throughout all or a significant portion of its range." A threatened species is defined as "any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range." Under FESA, it is unlawful to take any listed species; "take" is defined as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct."

FESA allows for the issuance of incidental take permits for listed species under Section 7, which is generally available for projects that also require other federal agency permits or other approvals, and under Section 10, which provides for the approval of habitat conservation plans on private property without any other federal agency involvement. Upon development of a habitat conservation plan, USFWS can issue incidental take permits for listed species.

Clean Water Act

Pursuant to Section 404 of the Clean Water Act, the U.S. Army Corps of Engineers (ACOE) regulates the discharge of dredged and/or fill material into waters of the United States. The term "wetlands" (a subset of waters) is defined in 33 Code of Federal Regulations 328.3(b) as "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas." In the absence of wetlands, the limits of ACOE jurisdiction in non-tidal waters, such as intermittent streams, extend to the ordinary high water mark, as defined in 33 Code of Federal Regulations 328.3(e). Pursuant to Section 10 of the Rivers and Harbors Act of 1899, ACOE regulates any potential obstruction or alteration of any navigable water of the United States.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) was originally passed in 1918 as four bilateral treaties, or conventions, for the protection of a shared migratory bird resource. The primary motivation for the international negotiations was to stop the "indiscriminate slaughter" of migratory birds by market hunters and others (16 U.S.C. 703–712). Each of the treaties protects selected species of birds and provides for closed and open seasons for hunting game birds. The MBTA protects more than 800 species. Two species of eagles that are native to the United States—bald eagle (*Haliaeetus leucocephalus*) and golden eagle (*Aquila chrysaetos*)—were granted additional protection within the United States under the Bald and Golden Eagle Protection Act (16 U.S.C. 668–668d) to prevent these species from becoming extinct.

3.2 State

California Endangered Species Act

The California Department of Fish and Wildlife (CDFW) administers the California Endangered Species Act (CESA), which prohibits the take of plant and animal species designated by the Fish and Game Commission as endangered or threatened in California. Under CESA Section 86, "take" is defined as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." CESA Section 2053 stipulates that state agencies may not approve projects that will "jeopardize the continued existence of any endangered species or threatened species, or result in the destruction or adverse modification of habitat essential to the continued existence of those species, if there are reasonable and prudent alternatives available consistent with conserving the species or its habitat which would prevent jeopardy."

CESA defines an endangered species as "a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant which is in serious danger of becoming extinct throughout all, or a significant portion, of its range due to one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, or disease." CESA defines a threatened species as "a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that, although not presently threatened with extinction, is likely to become an endangered species in the foreseeable future in the absence of the special protection and management efforts required by this chapter. Any animal determined by the Commission as rare on or before January 1, 1985, is a threatened species." A candidate species is defined as "a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that the Commission has formally noticed as being under review by the department for addition to either the list of endangered species or the list of threatened species, or a species for which the Commission has published a notice of proposed regulation to add the species to either list." CESA does not list invertebrate species.

California Fish and Game Code Sections 3503, 3511, 3513, 3801, 4700, 5050, and 5515

Section 2081(b) and (c) of the California Fish and Game Code authorizes take of endangered, threatened, or candidate species if take is incidental to otherwise lawful activity and if specific criteria are met. These provisions also require CDFW to coordinate consultations with USFWS for actions involving federally listed species that are also state-listed species. In certain circumstances, Section 2080.1 of CESA allows CDFW to adopt a federal incidental take statement or a 10(a) permit as its own, based on its findings that the federal permit adequately protects the species and is consistent with state law. A Section 2081(b) permit may not authorize the take of "fully protected" species or "specified birds" (California Fish and Game Code Sections 3505, 3511, 4700, 5050, 5515, and 5517). If a project is planned in an area where a fully protected species or a specified bird occurs, an applicant must design the project to avoid take.

California Fish and Game Code Sections 1600–1602

Pursuant to Section 1602 of the California Fish and Game Code, CDFW regulates all diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake that supports fish or wildlife. A Streambed Alteration Agreement is required for impacts to jurisdictional wetlands in accordance with Section 1602 of the California Fish and Game Code.

3.3 California Environmental Quality Act

California Environmental Quality Act Guidelines 15380

CEQA requires identification of a project's potentially significant impacts on biological resources and ways that such impacts can be avoided, minimized, or mitigated. The act also provides guidelines and thresholds for use by lead agencies for evaluating the significance of proposed impacts.

CEQA Guideline 15380(b)(1) defines endangered animals or plants as species or subspecies whose "survival and reproduction in the wild are in immediate jeopardy from one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, disease, or other factors" (14 CCR 15000 et seq.). A rare animal or plant is defined in CEQA Guideline 15380(b)(2) as a species that, although not presently threatened with extinction, exists "in such small numbers throughout all or a significant portion of its range that it may become endangered if its environment worsens; or … [t]he species is likely to become endangered within the foreseeable future throughout all or a significant portion of its range and may be considered 'threatened' as that term is used in the federal Endangered Species Act." Additionally, an animal or plant may be presumed to be endangered, rare, or threatened if it meets the criteria for listing, as defined further in CEQA Guideline 15380(c).

CDFW recognizes that all plants with California Rare Plant Rank 1A, 1B, and 2 of the CNPS Inventory of Rare and Endangered Plants in California (CNPS 2018) may meet the criteria for listing as threatened or endangered and should be considered under CEQA (CDFW 2018). Some of the California Rare Plant Rank 3 and 4 plants meet the criteria for determination as "rare" or "endangered" as defined in Section 1901, Chapter 10 (Native Plant Protection Act), Division 2, of the California Fish and Game Code, as well as Section 2062 and Section 2067, Chapter 1.5 (CESA), Division 3. Therefore, consideration under CEQA for these California Rare Plant Rank 3 and 4 species is strongly recommended by CNPS (CNPS 2018).

Special-Status Plants and Wildlife

Species that are federally listed or state-listed as endangered or threatened are considered special-status species within this analysis for biological resources.

Some mammals and birds are protected by the state as fully protected species, as described in the California Fish and Game Code, Sections 4700 and 3511, respectively. Fully protected species may not be taken or possessed without a permit from the California Fish and Game Commission, and no permit is available for the incidental take of a fully protected species. Species considered state candidates for listing as threatened or endangered are subject to the taking prohibitions and provisions under CESA as if the species were listed.

Special-Status Vegetation Communities

Section IV, Appendix G (Environmental Checklist Form) of the CEQA Guidelines (14 CCR 15000 et seq.) requires an evaluation of impacts to "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 the U.S. Fish and Wildlife Service." For purposes of this analysis, riparian is defined by the National Research Council's 2002 publication *Riparian Areas: Functions and Strategies for Management*:

> Riparian areas are transitional between terrestrial and aquatic ecosystems and are distinguished by gradients in biophysical conditions, ecological processes, and biota. They are areas through which surface and subsurface hydrology connect waterbodies with their adjacent uplands. They include those portions of terrestrial ecosystems that significantly

influence exchanges of energy and matter with aquatic ecosystems (i.e., a zone of influence). Riparian areas are adjacent to perennial, intermittent, and ephemeral streams, lakes, and estuarine-marine shorelines.

4 SURVEY METHODS

Data regarding biological and jurisdictional resources present within the project study area were obtained through a review of pertinent literature and field reconnaissance, described below.

4.1 Literature Review

Prior to conducting the field investigation, a literature review was conducted to evaluate the environmental setting of the Project site and identify potential special-status biological resources that may be found on the site. The review included the Van Nuys 7.5-minute USGS quadrangle (USGS 1973) and the County of Los Angeles GIS data portal (County of Los Angeles 2014). Additionally, a database query was conducted to identify special-status biological resources present or potentially present within the vicinity of the project site using the Natural Resource Conservation Service's Websoil Survey (USDA 2018a), California Natural Diversity Database (CNDDB) (CDFW 2018a), California Native Plant Society's (CNPS) *Online Inventory of Rare and Endangered Vascular Plants* (CNPS 2018), and USFWS species occurrence data (USFWS 2018a) and USFWS Information for Planning and Conservation System (IPaC) (USFWS 2018b) (Attachment A). A 1-mile buffer around the Project site was queried in the USFWS data using GIS software, and a "nine-quad" query was conducted of the CNPS inventory and CNDDB. A nine-quad query includes the subject quadrangle and the eight USGS quadrangles surrounding the subject quadrangle.[1]

Biological Survey

Dudek Biologist Johanna Page on March 5, 2018. The biological survey included mapping vegetation communities and land covers present within the project study area, evaluation of the presence of jurisdictional wetlands or waters, and evaluation of the potential for special-status species to occur in the project study area. Table 1 includes the survey date and conditions.

---

[1] A search of the USGS 7.5-minute Van Nuys quadrangle and surrounding eight quadrangles (San Fernando, Sunland, Canoga Park, Topanga, Oat Mountain, Burbank, Beverly Hills, and Hollywood) was conducted for the CNDDB and CNPS searches; and a 1-mile radius search was conducted for the USFWS occurrence data.

Table 1
Survey Date and Conditions

Date	Biologist	Time	Temperature, Cloud Cover	Wind Speeds
3/5/2018	Johanna Page	1100–1230	Start Condition: 61°F, cc: clear End Condition: 67°F, cc: clear	0–3 mph winds

°F = degrees Fahrenheit; mph = miles per hour; cc = cloud cover

The purpose of the field survey was to determine the likelihood of occurrence of any special-status plant or wildlife species based on the presence/absence of suitable habitat and other natural history elements that might predict their occurrence. The study area was methodically surveyed via a windshield survey and on foot, and all biological resources observed or detected were identified and inventoried. Expected wildlife usage of the site was determined according to known habitat preferences of regional wildlife species and knowledge of their relative distributions in the area. Potential for special-status plant species was assessed based on habitat and soil conditions that are known to support species occurring in the region.

Vegetation communities and land covers within the study area were mapped in the field directly onto a 100-foot-scale (1 inch = 100 feet) aerial photograph-based field map of the project site. Following completion of the fieldwork, all vegetation polygons were digitized using ArcGIS, and GIS coverage was created. Vegetation community classifications used in this report are based on the Manual of California Vegetation, Second Edition (Sawyer et al. 2009), with modifications in accordance with Holland (1986) to accommodate the lack of conformity of the observed communities to those included in these references.

All plant species and wildlife species encountered during the survey were identified and recorded directly into a field notebook. In addition to species actually detected during the surveys, expected wildlife use of the site was evaluated by known habitat preferences of local species and knowledge of their relative distributions in the area. A compiled list of the plant and animal species detected on site during the survey is attached to this letter report as Attachment B and Attachment C.

Although a formal wetlands delineation following the methodology described in *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States* (ACOE 2008a), *Wetlands Delineation Manual* (ACOE 1987), and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (ACOE 2008b) was not conducted during the field survey, the study area was evaluated for the potential to support jurisdictional waters regulated under the federal Clean Water Act, California Fish and Game Code, and Porter-Cologne Water Quality Control Act.

5 SURVEY RESULTS

5.1 Vegetation Communities and Land Covers

The site is primarily flat within a heavily urbanized area dominated by developed or disturbed, non-native land. Four vegetation communities and land covers were mapped within the study area based on general physiognomy and species composition: non-native grassland, ornamental vegetation, disturbed habitat, and urban/developed land. These vegetation communities and land cover types are described below, their acreages are presented in Table 2, and their spatial distributions are presented in Figure 3.4-1.

Table 2
Acreages of Vegetation Communities and Land Covers

Vegetation Community/ Land Cover Type	Project Site (Acreage)	Study Area including Project Site (Acreage)
Upland Naturalized Vegetation		
Non-Native Grassland (NNG)	1.12	7.92
Ornamental Planting (ORN)	0.01	19.91
Subtotal	*1.13*	*27.83*
Land Cover		
Disturbed Habitat (DH)	1.61	1.75
Urban/Developed (DEV)	20.57	193.00
Subtotal	*22.19*	*194.75*
Total	**23.31**[a]	**222.58**[a]

[a] Total may not sum due to rounding.

Upland Naturalized Vegetation

Non-Native Grassland

Non-native grassland is characterized by a mixture of weedy, introduced annuals, dominated by grasses (Sawyer and Keeler-Wolf 1995; Holland 1986). It may occur where disturbance by maintenance (e.g., mowing, scraping, disking, and spraying), grazing, repetitive fire, agriculture, or other mechanical disruption has altered soils and removed native seed sources from areas formerly supporting native vegetation (Holland 1986).

Non-native grassland communities on site were characterized by annual grasses typically including oats (*Avena* spp.), bromes (*Bromus diandrus*, *B. madritensis*, *B. hordeaceus*), shortpod mustard (*Hirschfeldia incana*), black mustard (*Brassica nigra*), sacred thorn-apple (*Datura* *wrightii*), stork's bill (*Erodium* spp.), telegraphweed (*Heterotheca grandiflora*), prickly Russian thistle, and Maltese star-thistle (*Centaurea melitensis*).

Ornamental Vegetation

Ornamental vegetation consists of introduced planting of exotic species as landscaping, including greenbelts, parks, nurseries and horticultural plantings throughout the City (Jones and Stokes 1993). Ornamental plantings within the study area are diverse and include ornamental landscaping surrounding single-family residential developments in the area. The majority of the project site is comprised of ornamental plantings dominated by various ornamental pines (*Pinus spp.*), Indian laurel fig (*Ficus microcarpa*), eucalyptus trees (*Eucalyptus* spp.), various ornamental cypress (*Cupressus* spp.), Peruvian peppertree (*Schinus molle*), Magnolia (*Magnolia* sp.), great bougainvillea (*Bougainvillea spectabilis*), cape honeysuckle (*Tecoma capensis*), oleander (*Nerium oleander*), rosemary (*Rosmarinus officinalis*), and garden roses (*Rosa spp.*). The plants on-site appear to be regularly maintained. Additionally, ornamental landscaping dominates the area surrounding the single-family residences. Ornamental vegetation is not considered sensitive by local, state, and/or federal agencies.

Land Covers

Disturbed Habitat

Disturbed habitat is a land cover type that is characterized by a predominance of non-native species, often introduced and established through human action. Disturbed habitat land cover has been physically disturbed and is no longer recognizable as native or naturalized vegetation, while retaining a soil substrate (Holland 1986; Oberbauer et al. 2008). Areas mapped as disturbed land may include unpaved roads, trails, and graded areas. Vegetation in these areas, if present at all, is usually sparse and dominated by non-native weedy herbaceous species.

The majority of the project site consists of disturbed habitat comprised of dirt roads and graded areas. There are portions of disturbed habitat where no vegetation occurs because the area is graded or the result of severe or repeated mechanical perturbation. Other areas less recently disturbed had some annual weedy species present, including bromes, shortpod mustard, slender oat (*Avena barbata*), redstem stork's bill (*Erodium cicutarium*), and Russian thistle.

Urban/Developed

Urban/Developed is land that is currently developed or on which construction is currently underway. Whether the structures are permanent, semi-permanent, pavement, hardscape, or irrigated landscape, the land no longer has the ability to support native vegetation due to the extent of its physical modifications (Holland 1986; Oberbauer et al. 2008). On site, urban/developed land occurs within the North Hollywood Pump Station and along the southern portion of the Rinaldi-Toluca Wells Field alignment within the project site, as well as within the developed areas in the adjacent study area dominated by residential communities and paved roads.

5.2 Flora

A total of 29 species of vascular plants, 4 native (14%) and 25 non-native (86%), were recorded during the biological reconnaissance survey for the project. A cumulative list of all common plant species observed in the study area are provided in Attachment B, Plant Compendium of this report. No sensitive plant species were observed.

The majority of the plants observed on-site were non-native species, which is representative of the existing site conditions. The project site is dominated by disturbed, non-native and ornamental vegetation commonly associated with urban areas throughout the City of Los Angeles. Residential areas dominated by non-native ornamental plants dominate the area immediately surrounding the project site, and disturbed areas dominate the areas southwest of the project site. Thus, the area is regularly maintained, providing minimal opportunity for native plants to re-establish. Additionally, there is minimal native habitat adjacent to or within a 1-mile radius of the project site.

5.3 Fauna

Due to the predominance of non-native vegetation and site disturbance characteristics, the site has limited potential to provide habitat that supports wildlife species. The project site is mostly surrounded by existing development that has no connectivity to habitat areas. The ornamental vegetation within the project site could potentially provide nesting habitat for special-status birds. There are no prominent rocks, boulders, or features on site that could be used by special-status reptiles. The few wildlife species detected during the survey are listed in Appendix B of this letter report.

Eleven wildlife species were identified on site, including nine bird species, one invertebrate species, and one reptile species. Common species identified on side include: house finch (*Haemorhous mexicanus*), mourning dove (Zenaida macroura), yellow-rumped warbler (*Setophaga coronata*), cabbage white butterfly (*Pieris rapae*), and common side-blotched lizard (*Uta stanburiana*).

Nesting Birds

Although the majority of the study area is dominated by ornamental vegetation, the vegetation on-site provides potentially suitable habitat for commonly occurring nesting birds, including house finch, northern mockingbird (*Mimus polyglottos*), black phoebe (*Sayornis nigricans*), common raven (*Corvus corax*), and lesser goldfinch (*Spinus psaltria*). Suitable nesting habitat exists within the project site and surrounding areas; thus, birds could nest within the study area. A nest was observed on a tower, approximately 100 feet northwest of the Rinaldi-Toluca Well No. 9, immediately southeast of SR-170; however, it was undetermined whether this nest was active. An American kestrel (*Falco sparverius*) was identified soaring overhead and perched on Tower 520 during the site visit conducted in March 2018. Direct and indirect impacts to migratory nesting birds must be avoided for compliance with the Migratory Bird Treaty Act (16 U.S.C. 703–712) and California Fish and Game Code Sections 3503.5, 3503, and 3513. Nesting birds could be affected by direct impacts due to vegetation removal and indirect impacts from short-term construction-related noise, resulting in decreased reproductive success or abandonment of an area as nesting habitat. As such, it is recommended that ground disturbing and vegetation trimming/removal activities be conducted outside of the breeding season to the extent feasible (i.e., February 1 through August 31); otherwise, a preconstruction nesting bird survey shall be conducted prior to ground disturbing and vegetation trimming/removal activities during the breeding season.

The project will comply with nesting bird regulations, including scheduling ground disturbing and/or vegetation trimming/removal activities to occur outside of the bird breeding season, conducting a preconstruction nesting bird survey prior to work within the general breeding season, and avoidance of active bird nests including appropriate avoidance buffers from active nests (see Section 6); thus, impacts to nesting birds are not anticipated to occur.

5.4 Special-Status Species

Special-Status Plants

No special-status plant species considered endangered, rare, or threatened under the CEQA Guidelines (14 CCR 15380) were identified during the site visits. A total of 52 special-status plant species were identified based on a nine-quad query of CNDDB (CDFW 2018) and CNPS (2018) for the Van Nuys USGS 7.5-minute topographic quadrangle and eight surrounding quadrangles. However, based on the disturbed habitat, as well as the highly urbanized area surrounding the project, no special-status plants are expected to occur on site. The majority of the plants observed on-site were non-native species, which is representative of the existing site conditions. According to a review of CNDDB (CDFW 2018), two special-status plants have been documented within 1 mile of the project site (Figure 3.4-2): slender-horned spineflower (*Dodecahema leptoceras*) and San Fernando Valley spineflower (*Chorizanthe parryi* var. *fernandina*).

Slender-Horned Spineflower

Slender-horned spineflower is a federally endangered, state candidate as endangered, and California Rare Plant Rank (CRPR) 1B.1 annual herb that blooms between April and June. Slender-horned spineflower is typically associated with sandy soils in chaparral, cismontane woodland, and coastal scrub habitats. This species occurs within elevations ranging between 655 and 2,493 feet AMSL. Slender-horned spineflower was documented approximately 1 mile east of the project site and is presumed extirpated based on the development in the area since its collection in 1906.

San Fernando Valley Spineflower

San Fernando Valley spineflower is a federally proposed as threatened, state endangered, and CRPR 1B.1 annual herb that blooms between April and July, and occurs within sandy coastal scrub and grassland habitats. This species occurs within elevations ranging between 492 and 4,002 feet AMSL. San Fernando Valley spineflower was documented approximately 1 mile southwest of the project site and is likely extirpated from the area due to development.

Based on the fact that the biological resources study area lacks suitable habitat (i.e., chaparral, cismontane woodland, and coastal scrub habitats) for slender-horned spineflower and has limited, isolated non-native grassland habitat to support San Fernando Valley spineflower, as well as they are likely extirpated from the area, these special-status plant species have a low potential to occur within the study area. The project site is dominated by developed land, with minimal disturbed, non-native weedy herbaceous species observed on site, providing minimal opportunity for native plants to re-establish. Additionally, there is minimal native habitat adjacent to or within a 1-mile radius of the project site. Thus, the proposed project would not affect special-status plants. No impacts to special-status plants are anticipated to occur.

Special-Status Wildlife

Endangered, rare, or threatened wildlife species, as defined in CEQA Guidelines, Section 15380(b) (14 CCR 15000 et seq.), are referred to as "special-status wildlife species" and, as used in this report, include (1) endangered or threatened wildlife species recognized in the context of

CESA and FESA (CDFW 2015a); (2) California Species of Special Concern (SSC); and (3) mammals and birds that are fully protected (FP) species, as described in the California Fish and Game Code, Sections 4700 and 3511.

No special-status wildlife species were detected during the survey conducted in March 2018. A total of 46 special-status wildlife species were identified based on a nine-quad query of CNDDB (CDFW 2018) and USFWS (2018) occurrence data available for the Van Nuys USGS 7.5-minute topographic quadrangle and eight surrounding quadrangles. Due to the heavily urbanized setting that dominates the surrounding study area, the site lacks native vegetation suitable to support special-status wildlife species identified in the nine-quad query. Thus, no special-status wildlife species were determined to have a moderate or high potential to occur within the project site. Two special-status wildlife species have been documented within one-mile of the project (CDFW 2018; Figure 3.4-2): coastal California gnatcatcher (*Polioptila californica californica*) and Los Angeles pocket mouse (*Perognathus longimembris brevinasus*).

Coastal California Gnatcatcher

Coastal California gnatcatcher is a small federally threatened and state species of special concern songbird that is a year-round resident of scrub dominated plant communities in southern California into Baja California, Mexico. One record for coastal California gnatcatcher occurs approximately 1 mile east of the project site and dates back to 1901 (CDFW 2017). The site lacks suitable coastal scrub habitat required to support this species; thus, coastal California gnatcatcher is not expected to occur within the study area.

Los Angeles Pocket Mouse

Los Angeles pocket mouse is a state species of special concern, which occurs within lower elevation grassland, alluvial sage scrub, and coastal sage scrub habitats in the coastal basins of southern California. The non-native grassland habitat within the project site is too limited and isolated to provide suitable habitat to support Los Angeles pocket mouse. Thus, there is a low potential for this species to occur within the study area.

Due to lack of native habitats in the project site and the urban setting that dominates the surrounding study area, the site lacks native vegetation suitable to support special-status wildlife species identified in the CNDDB (CDFW 2018) and United States Fish and Wildlife Service (USFWS 2018) nine-quad query (Appendix B). No special-status wildlife species were determined to have a moderate or high potential to occur within the project site. No impacts to special-status wildlife are anticipated to occur.

5.5 Jurisdictional Resources

No jurisdictional wetlands or non-wetland waters occur within the study area. Therefore, there would be no direct and/or indirect impacts to jurisdictional waters. As such, impacts to jurisdictional wetlands or non-wetland waters would be less than significant and no avoidance or mitigation measures are recommended.

5.6 Wildlife Corridors and Habitat Linkages

The study area is not recognized as a wildlife corridor as per South Coast Wildlands (2008) or County of Los Angeles (Department of Regional Planning 2014). The site is largely developed and does not provide suitable connection to open space areas. Additionally, the study area lacks habitats that support native migratory fish and wildlife. The project site is within a heavily urbanized environment with minimal open water sources; thus, does not provide suitable habitat for important nesting, feeding, and resting ground for migratory, resident and wintering bird species. As a result, the site provides minimal habitat to support resident and migratory birds and bats. Additionally, the long-term use of the area surrounding the project site would remain unchanged after construction.

The Rinaldi-Toluca Well Field alignment also includes a utility corridor, which traverses from northwest to southeast. The overall alignment connects with SR-170 along its northwestern extent, and with the northwestern portion of Griffith Park and adjacent Forrest Lawn along its southeastern extent. The alignment is within an urbanized portion of Los Angeles, so while it does not provide high quality habitat to support species movement and has limited potential to support “live in” habitat, it provides one of the few opportunities for wildlife to easily traverse through the heavily urbanized area. Thus, terrestrial species that are adapted to urban areas, such as coyote (*Canis latrans*), raccoon (*Procyon lotor*), and striped skunk (*Mephitis mephitis*), have the potential to use the general alignment for movement through the urban areas adjacent to the study area. Although project construction could temporarily affect the use of the project site by urban terrestrial wildlife, the overall long-term use of the area following construction would remain unchanged. Additionally, areas adjacent to the project will be suitable for use by urban wildlife to move through or around the project site during construction. Construction will be restricted to occur during the daytime, and avoid nighttime lighting that could deter terrestrial wildlife from the area. For these reasons the project would not 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.

6 BIOLOGICAL RECOMMENDATIONS SUMMARY

Nesting Bird Avoidance

If project construction occurs during the migratory bird nesting season (typically February 15 through August 31), a focused avian nesting survey of the project site and contiguous habitat area within 300 feet of ground disturbing activities (i.e., vegetation trimming and/or removal) for protected native birds (within 500 feet for raptors) shall be performed by a qualified wildlife biologist 72 hours prior to construction in accordance with the Migratory Bird Treaty Act (16 USC 703–712) and California Fish and Game Code Sections 3503, 3503.5, and 3513. If an active bird nest is found, the nest shall be flagged and mapped on the construction plans along with an appropriate no disturbance buffer, which will be determined by the biologist based on the biology of the species (typically 300 feet for passerines and 500 feet for raptor and special-status species). The nest area shall be avoided until the nest is vacated and the juveniles have fledged. The nest area shall be demarcated in the field with flagging and stakes or construction fencing.

7 SUMMARY

The majority of the project site consists of developed areas and disturbed, non-native lands dominated by ornamental plantings. Minimal, if any native vegetation occurs within the study area. No special-status plant species, vegetation communities, jurisdictional waters, or City protected trees occur within the project site. The project site does not occur within any designated wildlife corridor; however, the alignment likely provides a wildlife corridor for urban adapted species. The proposed project activities are anticipated to occur during daylight hours; thus, impacts to wildlife corridors would be less than significant and no avoidance or minimization measures are recommended. Additionally, the general use within the study area will relatively unchanged post-construction; thus, long-term direct and or indirect impacts are not anticipated. The trees and shrubs within the study area have the potential to support nesting birds. Direct and indirect impacts to migratory nesting birds must be avoided for compliance with the Migratory Bird Treaty Act (16 U.S.C. 703–712) and California Fish and Game Code Sections 3503.5, 3503, and 3513. Nesting birds could be affected by direct impacts due to vegetation removal and indirect impacts from short-term construction-related noise, resulting in decreased reproductive success or abandonment of an area as nesting habitat. As such, it is recommended that ground disturbing and vegetation trimming/removal activities be conducted outside of the breeding season to the extent feasible (i.e., February 1 through August 31); otherwise, a preconstruction nesting bird survey shall be conducted prior to ground disturbing and vegetation trimming/removal activities during the breeding season. The project will comply with nesting bird regulations, including scheduling ground disturbing and/or vegetation trimming/removal activities to occur outside of the bird breeding season, conducting a preconstruction nesting bird survey prior to work within the general breeding season, and avoidance of active bird nests including appropriate avoidance buffers from active nests; thus, impacts to nesting birds are not anticipated to occur.

If you have any questions or comments regarding the content of this letter, please do not hesitate to contact me via telephone at 661.289.2504 or via email at jpage@dudek.com.

Sincerely,

Johanna Page

Johanna Page
Senior Biologist/Project Manager

Att.: Figures 3.4-1 and 3.4-2 are included in the IS/MND for the project
Appendix A, CNDDB, CNPS, USFWS Occurrence Search
Appendix B, Plant Compendium
Appendix C, Wildlife Compendium

REFERENCES CITED

14 CCR 15000–15387 and Appendix A–L. Guidelines for Implementation of the California Environmental Quality Act, as amended.

16 U.S.C. 703–712. Migratory Bird Treaty Act, as amended.

ACOE (U.S. Army Corps of Engineers). 1987. *Corps of Engineers Wetland Delineation Manual.* Online ed. Environmental Laboratory, Wetlands Research Program Technical Report &-87-1. Vicksburg, Mississippi: U.S. Army Engineer Waterways Experiment Station. January 1987. Accessed September 1, 2010. http://www.fedcenter.gov/Bookmarks/index.cfm?id=6403&pge_id=1606.

ACOE. 2008. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0).* Environmental Laboratory, ERDC/EL TR-08-28. Vicksburg, Mississippi: U.S. Army Engineer Research and Development Center. September 2008. Accessed September 2015. http://www.usace.army.mil/Portals/2/docs/civilworks/regulatory/reg_supp/trel08-28.pdf.

ACOE and EPA (U.S. Environmental Protection Agency). 2008. "Clean Water Act Jurisdiction Following the U.S. Supreme Court's Decision in *Rapanos v. United States & Carabell v. United States*." December 2, 2008. http://water.epa.gov/lawsregs/guidance/wetlands/upload/2008_12_3_wetlands_CWA_Jurisdiction_Following_Rapanos120208.pdf.

Bing Maps. 2018. http://www.bing.com/maps/

CDFW. 2018. *Rarefind.* Version 5.2.14. CDFW, California Natural Diversity Database (CNDDB). Accessed March 27, 2018.

California Fish and Game Code, Section 1600–1616. Division 2: Department of Fish and Game, Chapter 6: Fish and Wildlife Protection and Conservation.

California Fish and Game Code, Sections 3500–3516. Division 4: Birds and Mammals, Part 2: Birds, Chapter 1: General Provisions.

California Fish and Game Code, Section 4700. Division 4: Birds and Mammals; Part 3: Mammals; Chapter 8: Fully Protected Mammals.

California Fish and Game Code, Section 5050. Division 5: Protected Reptiles and Amphibians; Chapter 2: Fully Protected Reptiles and Amphibians.

California Water Code Division 7, Sections 13000–16104. *Porter–Cologne Water Quality Control Act*.

CDFG (California Department of Fish and Game). 2010. "List of Vegetation Alliances and Associations." Vegetation Classification and Mapping Program. September 2010. Accessed March 2018. https://nrmsecure.dfg.ca.gov/FileHandler.ashx?DocumentID=24718.

CDFW (California Department of Fish and Wildlife). 2018. "Special Animals (898 taxa)." CDFW, Biogeographic Data Branch. March 2018. Accessed January 2018. http://www.dfg.ca.gov/biogeodata/cnddb/pdfs/SPAnimals.pdf

CDFW 2018a. State and Federally listed endangered and threatened animals of California. Accessed January 2018. https://www.dfg.ca.gov/biogeodata/cnddb/pdfs/TEAnimals.pdf

CDFW. 2018b. State and federally listed endangered, threatened, and rare plants of California. California Natural Diversity Database. CDFW, Biogeographic Data Branch. January 2018. Accessed March 2018. https://www.dfg.ca.gov/biogeodata/cnddb/pdfs/TEPlants.pdf

CDFW. 2018c. *Special Vascular Plants, Bryophytes, and Lichens List*. California Natural Diversity Database. January 2018. Accessed March 2018. https://www.dfg.ca.gov/biogeodata/cnddb/pdfs/SPPlants.pdf

CDFW 2018d. Rarefind. Version 5. California Natural Diversity Database. Accessed March 2018.

City of Los Angeles. 2006a. City of Los Angeles, Ordinance 177404, approved March 13, 2006. Effective April 23, 2006. Accessed March 2018. http://cityplanning.lacity.org/Code_Studies/Other/ProtectedTreeOrd.pdf.

City of Los Angeles. 2006b. *L.A. CEQA Thresholds Guide: Your Resource for Preparing CEQA Analyses in Los Angeles*. Section C. Biological Resources.

City of Los Angeles. 2018. Zimas "Seismic Hazards." Web Map Application. Accessed March 2018. http://zimas.lacity.org/

CNPS. 2018. *Inventory of Rare and Endangered Plants of California* (online edition, v8-03 0.39). Website http://www.rareplants.cnps.org [accessed 27 March 2018].

Department of Regional Planning. 2014. Regional Habitat Linkages, Figure 9.2. Accessed online March 2018 at http://planning.lacounty.gov/assets/upl/project/gp_2035_2014-FIG_9-2_Regional_Wildlife_Linkages.pdf

Holland, R.F. 1986. *Preliminary Descriptions of the Terrestrial Natural Communities of California.* Nongame-Heritage Program, California Department of Fish and Game. October 1986.

Oberbauer, T., M. Kelly, and J. Buegge. 2008. *Draft Vegetation Communities of San Diego County*. March 2008. Accessed December 2016. http://www.sdcanyonlands.org/pdfs/veg_comm_sdcounty_2008_doc.pdf.

Sawyer, J.O., T. Keeler-Wolf, and J. Evens. 2009. *A Manual of California Vegetation*. 2nd ed. Sacramento, California: California Native Plant Society .

South Coast Wildlands. 2008. *South Coast Missing Linkages: A Wildland Network for the South Coast Region.* Accessed online on March 2018. http://www.scwildlands.org/reports/SCMLRegionalReport.pdf.

USDA (U.S. Department of Agriculture). 2018a. *Web Soil Survey*. Soil Survey Staff, Natural Resources Conservation Service, U.S. Department of Agriculture. Accessed March 23, 2018. https://websoilsurvey.sc.egov.usda.gov/.

USDA. 2018b. “California.” State PLANTS Checklist. Accessed March 2018. http://plants.usda.gov/dl_state.html.

USFWS (U.S. Fish and Wildlife Service). 2018. *Critical Habitat and Occurrence Data*. www.fws.gov/data.

ATTACHMENT A

Literature Review

Selected Elements by Common Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Van Nuys (3411824) OR Oat Mountain (3411835) OR San Fernando (3411834) OR Sunland (3411833) OR Canoga Park (3411825) OR Burbank (3411823) OR Topanga (3411815) OR Beverly Hills (3411814) OR Hollywood (3411813))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
American badger *Taxidea taxus*	AMAJF04010	None	None	G5	S3	SSC
arroyo chub *Gila orcuttii*	AFCJB13120	None	None	G2	S2	SSC
arroyo toad *Anaxyrus californicus*	AAABB01230	Endangered	None	G2G3	S2S3	SSC
bank swallow *Riparia riparia*	ABPAU08010	None	Threatened	G5	S2	
beach spectaclepod *Dithyrea maritima*	PDBRA10020	None	Threatened	G1	S1	1B.1
big free-tailed bat *Nyctinomops macrotis*	AMACD04020	None	None	G5	S3	SSC
Blochman's dudleya *Dudleya blochmaniae ssp. blochmaniae*	PDCRA04051	None	None	G3T2	S2	1B.1
Braunton's milk-vetch *Astragalus brauntonii*	PDFAB0F1G0	Endangered	None	G2	S2	1B.1
burrowing owl *Athene cunicularia*	ABNSB10010	None	None	G4	S3	SSC
Busck's gallmoth *Carolella busckana*	IILEM2X090	None	None	G1G3	SH	
California glossy snake *Arizona elegans occidentalis*	ARADB01017	None	None	G5T2	S2	SSC
California leaf-nosed bat *Macrotus californicus*	AMACB01010	None	None	G4	S3	SSC
California legless lizard *Anniella sp. 1*	ARACC01070	None	None	G3G4	S3S4	SSC
California Orcutt grass *Orcuttia californica*	PMPOA4G010	Endangered	Endangered	G1	S1	1B.1
California Walnut Woodland *California Walnut Woodland*	CTT71210CA	None	None	G2	S2.1	
coast horned lizard *Phrynosoma blainvillii*	ARACF12100	None	None	G3G4	S3S4	SSC
Coast Range newt *Taricha torosa*	AAAAF02032	None	None	G4	S4	SSC
coastal California gnatcatcher *Polioptila californica californica*	ABPBJ08081	Threatened	None	G4G5T2Q	S2	SSC

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
coastal dunes milk-vetch *Astragalus tener var. titi*	PDFAB0F8R2	Endangered	Endangered	G2T1	S1	1B.1
coastal whiptail *Aspidoscelis tigris stejnegeri*	ARACJ02143	None	None	G5T5	S3	SSC
Coulter's goldfields *Lasthenia glabrata ssp. coulteri*	PDAST5L0A1	None	None	G4T2	S2	1B.1
Coulter's saltbush *Atriplex coulteri*	PDCHE040E0	None	None	G3	S1S2	1B.2
Crotch bumble bee *Bombus crotchii*	IIHYM24480	None	None	G3G4	S1S2	
Davidson's bush-mallow *Malacothamnus davidsonii*	PDMAL0Q040	None	None	G2	S2	1B.2
Davidson's saltscale *Atriplex serenana var. davidsonii*	PDCHE041T1	None	None	G5T1	S1	1B.2
Gambel's water cress *Nasturtium gambelii*	PDBRA270V0	Endangered	Threatened	G1	S1	1B.1
Gertsch's socalchemmis spider *Socalchemmis gertschi*	ILARAU7010	None	None	G1	S1	
globose dune beetle *Coelus globosus*	IICOL4A010	None	None	G1G2	S1S2	
Greata's aster *Symphyotrichum greatae*	PDASTE80U0	None	None	G2	S2	1B.3
hoary bat *Lasiurus cinereus*	AMACC05030	None	None	G5	S4	
least Bell's vireo *Vireo bellii pusillus*	ABPBW01114	Endangered	Endangered	G5T2	S2	
Los Angeles pocket mouse *Perognathus longimembris brevinasus*	AMAFD01041	None	None	G5T1T2	S1S2	SSC
Los Angeles sunflower *Helianthus nuttallii ssp. parishii*	PDAST4N102	None	None	G5TH	SH	1A
lucky morning-glory *Calystegia felix*	PDCON040P0	None	None	G1Q	S1	1B.1
many-stemmed dudleya *Dudleya multicaulis*	PDCRA040H0	None	None	G2	S2	1B.2
marsh sandwort *Arenaria paludicola*	PDCAR040L0	Endangered	Endangered	G1	S1	1B.1
mesa horkelia *Horkelia cuneata var. puberula*	PDROS0W045	None	None	G4T1	S1	1B.1
monarch - California overwintering population *Danaus plexippus pop. 1*	IILEPP2012	None	None	G4T2T3	S2S3	
mud nama *Nama stenocarpa*	PDHYD0A0H0	None	None	G4G5	S1S2	2B.2

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Nevin's barberry *Berberis nevinii*	PDBER060A0	Endangered	Endangered	G1	S1	1B.1
Nuttall's scrub oak *Quercus dumosa*	PDFAG050D0	None	None	G3	S3	1B.1
pallid bat *Antrozous pallidus*	AMACC10010	None	None	G5	S3	SSC
Palmer's grapplinghook *Harpagonella palmeri*	PDBOR0H010	None	None	G4	S3	4.2
Parish's brittlescale *Atriplex parishii*	PDCHE041D0	None	None	G1G2	S1	1B.1
Payne's bush lupine *Lupinus paynei*	PDFAB2B580	None	None	G1Q	S1	1B.1
Plummer's mariposa-lily *Calochortus plummerae*	PMLIL0D150	None	None	G4	S4	4.2
prostrate vernal pool navarretia *Navarretia prostrata*	PDPLM0C0Q0	None	None	G2	S2	1B.1
Riversidian Alluvial Fan Sage Scrub *Riversidian Alluvial Fan Sage Scrub*	CTT32720CA	None	None	G1	S1.1	
Robinson's pepper-grass *Lepidium virginicum var. robinsonii*	PDBRA1M114	None	None	G5T3	S3	4.3
salt marsh bird's-beak *Chloropyron maritimum ssp. maritimum*	PDSCR0J0C2	Endangered	Endangered	G4?T1	S1	1B.2
salt spring checkerbloom *Sidalcea neomexicana*	PDMAL110J0	None	None	G4	S2	2B.2
San Bernardino aster *Symphyotrichum defoliatum*	PDASTE80C0	None	None	G2	S2	1B.2
San Bernardino ringneck snake *Diadophis punctatus modestus*	ARADB10015	None	None	G5T2T3Q	S2?	
San Diego black-tailed jackrabbit *Lepus californicus bennettii*	AMAEB03051	None	None	G5T3T4	S3S4	SSC
San Diego desert woodrat *Neotoma lepida intermedia*	AMAFF08041	None	None	G5T3T4	S3S4	SSC
San Fernando Valley spineflower *Chorizanthe parryi var. fernandina*	PDPGN040J1	Proposed Threatened	Endangered	G2T1	S1	1B.1
sandy beach tiger beetle *Cicindela hirticollis gravida*	IICOL02101	None	None	G5T2	S2	
Santa Ana speckled dace *Rhinichthys osculus ssp. 3*	AFCJB3705K	None	None	G5T1	S1	SSC
Santa Ana sucker *Catostomus santaanae*	AFCJC02190	Threatened	None	G1	S1	
Santa Monica dudleya *Dudleya cymosa ssp. ovatifolia*	PDCRA040A5	Threatened	None	G5T1	S1	1B.1

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Santa Monica shieldback katydid *Aglaothorax longipennis*	IIORT32020	None	None	G1G2	S1S2	
Santa Susana tarplant *Deinandra minthornii*	PDAST4R0J0	None	Rare	G2	S2	1B.2
silver-haired bat *Lasionycteris noctivagans*	AMACC02010	None	None	G5	S3S4	
slender mariposa-lily *Calochortus clavatus var. gracilis*	PMLIL0D096	None	None	G4T2T3	S2S3	1B.2
slender-horned spineflower *Dodecahema leptoceras*	PDPGN0V010	Endangered	Endangered	G1	S1	1B.1
Sonoran maiden fern *Thelypteris puberula var. sonorensis*	PPTHE05192	None	None	G5T3	S2	2B.2
south coast marsh vole *Microtus californicus stephensi*	AMAFF11035	None	None	G5T1T2	S1S2	SSC
south coast saltscale *Atriplex pacifica*	PDCHE041C0	None	None	G4	S2	1B.2
Southern California Arroyo Chub/Santa Ana Sucker Stream *Southern California Arroyo Chub/Santa Ana Sucker Stream*	CARE2330CA	None	None	GNR	SNR	
southern California rufous-crowned sparrow *Aimophila ruficeps canescens*	ABPBX91091	None	None	G5T3	S3	WL
Southern Coast Live Oak Riparian Forest *Southern Coast Live Oak Riparian Forest*	CTT61310CA	None	None	G4	S4	
Southern Cottonwood Willow Riparian Forest *Southern Cottonwood Willow Riparian Forest*	CTT61330CA	None	None	G3	S3.2	
southern grasshopper mouse *Onychomys torridus ramona*	AMAFF06022	None	None	G5T3	S3	SSC
Southern Mixed Riparian Forest *Southern Mixed Riparian Forest*	CTT61340CA	None	None	G2	S2.1	
southern mountain yellow-legged frog *Rana muscosa*	AAABH01330	Endangered	Endangered	G1	S1	WL
Southern Sycamore Alder Riparian Woodland *Southern Sycamore Alder Riparian Woodland*	CTT62400CA	None	None	G4	S4	
southern tarplant *Centromadia parryi ssp. australis*	PDAST4R0P4	None	None	G3T2	S2	1B.1
Southern Willow Scrub *Southern Willow Scrub*	CTT63320CA	None	None	G3	S2.1	
southwestern willow flycatcher *Empidonax traillii extimus*	ABPAE33043	Endangered	Endangered	G5T2	S1	
steelhead - southern California DPS *Oncorhynchus mykiss irideus pop. 10*	AFCHA0209J	Endangered	None	G5T1Q	S1	
Swainson's hawk *Buteo swainsoni*	ABNKC19070	None	Threatened	G5	S3	

Selected Elements by Common Name

California Department of Fish and Wildlife

California Natural Diversity Database

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Townsend's big-eared bat *Corynorhinus townsendii*	AMACC08010	None	None	G3G4	S2	SSC
tricolored blackbird *Agelaius tricolor*	ABPBXB0020	None	Candidate Endangered	G2G3	S1S2	SSC
two-striped gartersnake *Thamnophis hammondii*	ARADB36160	None	None	G4	S3S4	SSC
Valley Oak Woodland *Valley Oak Woodland*	CTT71130CA	None	None	G3	S2.1	
Ventura Marsh milk-vetch *Astragalus pycnostachyus var. lanosissimus*	PDFAB0F7B1	Endangered	Endangered	G2T1	S1	1B.1
western bristly scaleseed *Spermolepis lateriflora*	PDAPI23080	None	None	G5	SH	2A
western mastiff bat *Eumops perotis californicus*	AMACD02011	None	None	G5T4	S3S4	SSC
western pond turtle *Emys marmorata*	ARAAD02030	None	None	G3G4	S3	SSC
western spadefoot *Spea hammondii*	AAABF02020	None	None	G3	S3	SSC
western yellow bat *Lasiurus xanthinus*	AMACC05070	None	None	G5	S3	SSC
western yellow-billed cuckoo *Coccyzus americanus occidentalis*	ABNRB02022	Threatened	Endangered	G5T2T3	S1	
white rabbit-tobacco *Pseudognaphalium leucocephalum*	PDAST440C0	None	None	G4	S2	2B.2
white-veined monardella *Monardella hypoleuca ssp. hypoleuca*	PDLAM180A3	None	None	G4T3	S3	1B.3
yellow rail *Coturnicops noveboracensis*	ABNME01010	None	None	G4	S1S2	SSC

Record Count: 95

CNPS California Native Plant Society

Inventory of Rare and Endangered Plants

Plant List

49 matches found. *Click on scientific name for details*

Search Criteria

California Rare Plant Rank is one of [1A, 1B, 2A, 2B, 3, 4], Found in Quads 3411835, 3411834, 3411833, 3411825, 3411824, 3411823, 3411815 3411814 and 3411813;

Modify Search Criteria Export to Excel Modify Columns Modify Sort Display Photos

Scientific Name	Common Name	Family	Lifeform	Blooming Period	CA Rare Plant Rank	State Rank	Global Rank	State Listing Status	Federal Listing Status	Habitats	Lowest Elevation	Highest Elevation	CA Endemic
Arenaria paludicola	marsh sandwort	Caryophyllaceae	perennial stoloniferous herb	May-Aug	1B.1	S1	G1	CE	FE	• Marshes and swamps (freshwateror brackish)	3 m	170 m	
Astragalus brauntonii	Braunton's milk-vetch	Fabaceae	perennial herb	Jan-Aug	1B.1	S2	G2		FE	• Chaparral • Coastal scrub • Valley and foothill grassland	4 m	640 m	yes
Astragalus pycnostachyus var. lanosissimus	Ventura marsh milk-vetch	Fabaceae	perennial herb	(Jun) Aug-Oct	1B.1	S1	G2T1	CE	FE	• Coastal dunes • Coastal scrub • Marshes and swamps (edges, coastal salt or brackish)	1 m	35 m	yes
Astragalus tener var. titi	coastal dunes milk-vetch	Fabaceae	annual herb	Mar-May	1B.1	S1	G2T1	CE	FE	• Coastal bluff scrub (sandy) • Coastal dunes • Coastal prairie (mesic)	1 m	50 m	yes
Atriplex coulteri	Coulter's saltbush	Chenopodiaceae	perennial herb	Mar-Oct	1B.2	S1S2	G3			• Coastal bluff scrub • Coastal dunes • Coastal scrub • Valley and foothill grassland	3 m	460 m	
Atriplex pacifica	South Coast saltscale	Chenopodiaceae	annual herb	Mar-Oct	1B.2	S2	G4			• Coastal bluff scrub • Coastal dunes • Coastal scrub • Playas	0 m	140 m	
Atriplex parishii	Parish's brittlescale	Chenopodiaceae	annual herb	Jun-Oct	1B.1	S1	G1G2			• Chenopod scrub • Playas • Vernal pools	25 m	1900 m	
Atriplex serenana var. davidsonii	Davidson's saltscale	Chenopodiaceae	annual herb	Apr-Oct	1B.2	S1	G5T1			• Coastal bluff scrub • Coastal scrub	10 m	200 m	
Berberis nevinii	Nevin's barberry	Berberidaceae	perennial evergreen shrub	(Feb) Mar-Jun	1B.1	S1	G1	CE	FE	• Chaparral • Cismontane woodland • Coastal scrub	70 m	825 m	yes

								• Riparian scrub			
Calandrinia breweri	Brewer's calandrinia	Montiaceae	annual herb	(Jan) Mar-Jun	4.2	S4	G4	• Chaparral • Coastal scrub	10 m	1220 m	
Calochortus catalinae	Catalina mariposa lily	Liliaceae	perennial bulbiferous herb	(Feb) Mar-Jun	4.2	S3S4	G3G4	• Chaparral • Cismontane woodland • Coastal scrub • Valley and foothill grassland	15 m	700 m	yes
Calochortus clavatus var. gracilis	slender mariposa lily	Liliaceae	perennial bulbiferous herb	Mar-Jun (Nov)	1B.2	S2S3	G4T2T3	• Chaparral • Coastal scrub • Valley and foothill grassland	320 m	1000 m	yes
Calochortus plummerae	Plummer's mariposa lily	Liliaceae	perennial bulbiferous herb	May-Jul	4.2	S4	G4	• Chaparral • Cismontane woodland • Coastal scrub • Lower montane coniferous forest • Valley and foothill grassland	100 m	1700 m	yes
Calystegia felix	lucky morning-glory	Convolvulaceae	annual rhizomatous herb	Mar-Sep	1B.1	S1	G1Q	• Meadows and seeps (sometimes alkaline) • Riparian scrub (alluvial)	30 m	215 m	yes
Calystegia peirsonii	Peirson's morning-glory	Convolvulaceae	perennial rhizomatous herb	Apr-Jun	4.2	S4	G4	• Chaparral • Chenopod scrub • Cismontane woodland • Coastal scrub • Lower montane coniferous forest • Valley and foothill grassland	30 m	1500 m	yes
Camissoniopsis lewisii	Lewis' evening-primrose	Onagraceae	annual herb	Mar-May (Jun)	3	S4	G4	• Coastal bluff scrub • Cismontane woodland • Coastal dunes • Coastal scrub • Valley and foothill grassland	0 m	300 m	
Canbya candida	white pygmy-poppy	Papaveraceae	annual herb	Mar-Jun	4.2	S3S4	G3G4	• Joshua tree woodland • Mojavean desert scrub • Pinyon and juniper woodland	600 m	1460 m	yes
Centromadia parryi ssp. australis	southern tarplant	Asteraceae	annual herb	May-Nov	1B.1	S2	G3T2	• Marshes and swamps (margins) • Valley and foothill grassland (vernally mesic) • Vernal pools	0 m	480 m	
		Rosaceae		Feb-May	4.3	S4	G5T4	• Closed-cone	30 m	600 m	yes

Cercocarpus betuloides var. blancheae	island mountain-mahogany		perennial evergreen shrub							coniferous forest • Chaparral			
Chloropyron maritimum ssp. maritimum	salt marsh bird's-beak	Orobanchaceae	annual herb (hemiparasitic)	May-Oct (Nov)	1B.2	S1	G4?T1	CE	FE	• Coastal dunes • Marshes and swamps (coastal salt)	0 m	30 m	
Chorizanthe parryi var. fernandina	San Fernando Valley spineflower	Polygonaceae	annual herb	Apr-Jul	1B.1	S1	G2T1	CE	FC	• Coastal scrub (sandy) • Valley and foothill grassland	150 m	1220 m	yes
Convolvulus simulans	small-flowered morning-glory	Convolvulaceae	annual herb	Mar-Jul	4.2	S4	G4			• Chaparral (openings) • Coastal scrub • Valley and foothill grassland	30 m	740 m	
Deinandra minthornii	Santa Susana tarplant	Asteraceae	perennial deciduous shrub	Jul-Nov	1B.2	S2	G2	CR		• Chaparral • Coastal scrub	280 m	760 m	yes
Dithyrea maritima	beach spectaclepod	Brassicaceae	perennial rhizomatous herb	Mar-May	1B.1	S1	G1	CT		• Coastal dunes • Coastal scrub (sandy)	3 m	50 m	
Dodecahema leptoceras	slender-horned spineflower	Polygonaceae	annual herb	Apr-Jun	1B.1	S1	G1	CE	FE	• Chaparral • Cismontane woodland • Coastal scrub (alluvial fan)	200 m	760 m	yes
Dudleya cymosa ssp. ovatifolia	Santa Monica dudleya	Crassulaceae	perennial herb	Mar-Jun	1B.1	S1	G5T1		FT	• Chaparral • Coastal scrub	150 m	1675 m	yes
Dudleya multicaulis	many-stemmed dudleya	Crassulaceae	perennial herb	Apr-Jul	1B.2	S2	G2			• Chaparral • Coastal scrub • Valley and foothill grassland	15 m	790 m	yes
Helianthus nuttallii ssp. parishii	Los Angeles sunflower	Asteraceae	perennial rhizomatous herb	Aug-Oct	1A	SH	G5TH			• Marshes and swamps (coastal salt and freshwater)	10 m	1525 m	yes
Heuchera caespitosa	urn-flowered alumroot	Saxifragaceae	perennial rhizomatous herb	May-Aug	4.3	S3	G3			• Cismontane woodland • Lower montane coniferous forest • Riparian forest (montane) • Upper montane coniferous forest	1155 m	2650 m	yes
Hordeum intercedens	vernal barley	Poaceae	annual herb	Mar-Jun	3.2	S3S4	G3G4			• Coastal dunes • Coastal scrub • Valley and foothill grassland (saline flats and depressions) • Vernal pools	5 m	1000 m	
Horkelia cuneata var. puberula	mesa horkelia	Rosaceae	perennial herb	Feb-Jul (Sep)	1B.1	S1	G4T1			• Chaparral (maritime) • Cismontane woodland • Coastal scrub	70 m	810 m	yes

Hulsea vestita ssp. gabrielensis	San Gabriel Mountains sunflower	Asteraceae	perennial herb	May-Jul	4.3	S4	G5T3			• Lower montane coniferous forest • Upper montane coniferous forest	1500 m	2500 m	yes
Juglans californica	Southern California black walnut	Juglandaceae	perennial deciduous tree	Mar-Aug	4.2	S3	G3			• Chaparral • Cismontane woodland • Coastal scrub • Riparian woodland	50 m	900 m	yes
Lasthenia glabrata ssp. coulteri	Coulter's goldfields	Asteraceae	annual herb	Feb-Jun	1B.1	S2	G4T2			• Marshes and swamps (coastal salt) • Playas • Vernal pools	1 m	1220 m	
Lepidium virginicum var. robinsonii	Robinson's pepper-grass	Brassicaceae	annual herb	Jan-Jul	4.3	S3	G5T3			• Chaparral • Coastal scrub	1 m	885 m	
Lilium humboldtii ssp. ocellatum	ocellated Humboldt lily	Liliaceae	perennial bulbiferous herb	Mar-Jul (Aug)	4.2	S3	G4T3			• Chaparral • Cismontane woodland • Coastal scrub • Lower montane coniferous forest • Riparian woodland	30 m	1800 m	yes
Linanthus concinnus	San Gabriel linanthus	Polemoniaceae	annual herb	Apr-Jul	1B.2	S2	G2			• Chaparral • Lower montane coniferous forest • Upper montane coniferous forest	1520 m	2800 m	yes
Malacothamnus davidsonii	Davidson's bush-mallow	Malvaceae	perennial deciduous shrub	Jun-Jan	1B.2	S2	G2			• Chaparral • Cismontane woodland • Coastal scrub • Riparian woodland	185 m	1140 m	yes
Monardella hypoleuca ssp. hypoleuca	white-veined monardella	Lamiaceae	perennial herb	(Apr) May-Aug (Sep-Dec)	1B.3	S3	G4T3			• Chaparral • Cismontane woodland	50 m	1525 m	yes
Nama stenocarpa	mud nama	Namaceae	annual / perennial herb	Jan-Jul	2B.2	S1S2	G4G5			• Marshes and swamps (lake margins, riverbanks)	5 m	500 m	
Nasturtium gambelii	Gambel's water cress	Brassicaceae	perennial rhizomatous herb	Apr-Oct	1B.1	S1	G1	CT	FE	• Marshes and swamps (freshwater or brackish)	5 m	330 m	
Phacelia hubbyi	Hubby's phacelia	Hydrophyllaceae	annual herb	Apr-Jul	4.2	S4	G4			• Chaparral • Coastal scrub • Valley and foothill grassland	0 m	1000 m	yes
Pseudognaphalium leucocephalum	white rabbit-tobacco	Asteraceae	perennial herb	(Jul) Aug-Nov (Dec)	2B.2	S2	G4			• Chaparral • Cismontane woodland • Coastal scrub • Riparian woodland	0 m	2100 m	
Quercus dumosa	Nuttall's scrub oak	Fagaceae			1B.1	S3	G3			• Closed-cone	15 m	400 m	

			perennial evergreen shrub	Feb-Apr (May-Aug)						coniferous forest • Chaparral • Coastal scrub			
Sidalcea neomexicana	salt spring checkerbloom	Malvaceae	perennial herb	Mar-Jun	2B.2	S2	G4			• Chaparral • Coastal scrub • Lower montane coniferous forest • Mojavean desert scrub • Playas	15 m	1530 m	
Spermolepis lateriflora	western bristly scaleseed	Apiaceae	annual herb	Mar-Apr	2A	SH	G5			• Sonoran desert scrub	365 m	670 m	
Symphyotrichum defoliatum	San Bernardino aster	Asteraceae	perennial rhizomatous herb	Jul-Nov	1B.2	S2	G2			• Cismontane woodland • Coastal scrub • Lower montane coniferous forest • Meadows and seeps • Marshes and swamps • Valley and foothill grassland (vernally mesic)	2 m	2040 m	yes
Symphyotrichum greatae	Greata's aster	Asteraceae	perennial rhizomatous herb	Jun-Oct	1B.3	S2	G2			• Broadleafed upland forest • Chaparral • Cismontane woodland • Lower montane coniferous forest • Riparian woodland	300 m	2010 m	yes
Thelypteris puberula var. sonorensis	Sonoran maiden fern	Thelypteridaceae	perennial rhizomatous herb	Jan-Sep	2B.2	S2	G5T3			• Meadows and seeps (seeps and streams)	50 m	610 m	

Suggested Citation

California Native Plant Society, Rare Plant Program. 2018. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39). Website http://www.rareplants.cnps.org [accessed 27 March 2018].

Search the Inventory

Simple Search

Advanced Search

Glossary

Information

About the Inventory

About the Rare Plant Program

CNPS Home Page

About CNPS

Join CNPS

Contributors

The Calflora Database

The California Lichen Society

California Natural Diversity Database

The Jepson Flora Project

The Consortium of California Herbaria

CalPhotos

Questions and Comments

rareplants@cnps.org

IPaC Information for Planning and Consultation **U.S. Fish & Wildlife Service**

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Los Angeles County, California

Local office

Carlsbad Fish And Wildlife Office

☎ (760) 431-9440
📠 (760) 431-5901

2177 Salk Avenue - Suite 250
Carlsbad, CA 92008-7385

http://www.fws.gov/carlsbad/

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population, even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species

[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

---

1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information.
2. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Birds

NAME	STATUS
California Condor Gymnogyps californianus There is **final** critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/8193	Endangered
Coastal California Gnatcatcher Polioptila californica californica There is **final** critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/8178	Threatened
Least Bell's Vireo Vireo bellii pusillus There is **final** critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/5945	Endangered

Flowering Plants

NAME	STATUS
Gambel's Watercress Rorippa gambellii No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/4201	Endangered

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act

[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

---

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php
- Measures for avoiding and minimizing impacts to birds http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php
- Nationwide conservation measures for birds http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf

MIGRATORY BIRD INFORMATION IS NOT AVAILABLE AT THIS TIME

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures and/or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the counties which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the E-bird Explore Data Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets .

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: The The Cornell Lab of Ornithology All About Birds Bird Guide, or (if you are unsuccessful in locating the bird of interest there), the Cornell Lab of Ornithology Neotropical Birds guide. If a bird entry on your migratory bird species list indicates a breeding season, it is probable that the bird breeds in your project's counties at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the BGEPA should such impacts occur.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

THERE ARE NO KNOWN WETLANDS AT THIS LOCATION.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

ATTACHMENT B

Vascular Plant Species Observed

ATTACHMENT B
Plant Compendium

VASCULAR SPECIES

GYMNOSPERMS AND GNETOPHYTES

PINACEAE—PINE FAMILY

* *Pinus* canariensis—Canary Island pine
* *Pinus pinea*—Italian stone pine

CUPRESSACEAE—CYPRESS FAMILY

* *Cupressus sempervirens*—Italian cypress

MONOCOTS

POACEAE—GRASS FAMILY

* *Avena barbata*—slender oat
* *Bromus diandrus*—ripgut brome
* *Bromus madritensis ssp. rubens*—red brome
* *Schismus barbatus*—common Mediterranean grass
Agrostis sp.—bent grass

EUDICOTS

AGAVACEAE—AGAVE FAMILY

* *Agave americana—American century plant*

ARECAEAE—PALM FAMILY

* *Phoenix canariensis*—Canary Island date palm
* *Washingtonia robusta*—Washington fan palm

ASTERACEAE—SUNFLOWER FAMILY

Heterotheca grandiflora—telegraphweed
* *Centaurea melitensis*—Maltese star-thistle
* *Taraxacum officinale*—common dandelion

BIGNONIACEAE—TRUMPET-CREEPER FAMILY

* *Tecoma capensis*—cape honeysuckle

BRASSICACEAE—MUSTARD FAMILY

* *Brassica nigra*—black mustard
* *Hirschfeldia incana*—shortpod mustard

CHENOPODIACEAE—GOOSEFOOT FAMILY

* *Salsola tragus*—prickly Russian thistle

FAGACEAE—OAK FAMILY

* *Melilotus officinalis*—sweetclover

GERANIACEAE—GERANIUM FAMILY

* *Erodium cicutarium*—redstem stork's bill
* *Erodium botrys*—longbeak stork's bill

MORACEAE—MULBERRY FAMILY

* *Ficus microcarpa*—Indian laurel fig

MYRTACEAE—MYRTLE FAMILY

* *Eucalyptus camaldulensis*—river redgum
* *Eucalyptus citriodora*—lemonscented gum

NYCTAGINACEAE—FOUR O'CLOCK FAMILY

* *Bougainvillea spectabilis*—great bougainvillea

PITTOSPORACEAE—CHEESEWOOD FAMILY

* *Pittosporum undalatum*—Victorian box tree

POLYGONACEAE—BUCKWHEAT FAMILY

Eriogonum fasciculatum var. *foliolosum*—Eastern Mojave buckwheat

SOLANACEAE—NIGHTSHADE FAMILY

Datura wrightii—sacred thorn-apple
* *Nicotiana glauca*—tree tobacco

* signifies introduced (non-native) species

ATTACHMENT C

Wildlife Species Observed

ATTACHMENT C
Wildlife Compendium

BIRD

FALCONS

FALCONIDAE—CARACARAS & FALCONS

Falco sparverius—American kestrel

FINCHES

FRINGILLIDAE—FRINGILLINE AND CARDUELINE FINCHES AND ALLIES

Haemorhous mexicanus—house finch

Spinus psaltria—lesser goldfinch

FLYCATCHERS

TYRANNIDAE—TYRANT FLYCATCHERS

Sayornis nigricans—black phoebe

MOCKINGBIRDS AND THRASHERS

MIMIDAE—MOCKINGIRDS AND THRASHERS

Mimus polyglottos—northern mockingbird

JAYS, MAGPIES AND CROWS

CORVIDAE—CROWS AND JAYS

Corvus corax—common raven

PIGEONS & DOVES

COLUMBIDAE—PIGEONS & DOVES

Zenaida macroura—mourning dove

STARLINGS AND ALLIES

STURNIDAE—STARLINGS

* *Sturnus vulgaris—European starling*

WOOD WARBLERS AND ALLIES

PARULIDAE—WOOD-WARBLERS

Setophaga coronata—yellow-rumped warbler

REPTILE

LIZARDS

PHRYNOSOMATIDAE—IGUANID LIZARDS

Uta stanburiana—common side-blotched lizard

INVERTEBRATE

BUTTERFLIES

PIERIDAE—WHITES AND SULFURS

Pieris rapae—cabbage white

* signifies introduced (non-native) species

APPENDIX C

Noise

DUDEK

FIELD NOISE MEASUREMENT DATA

PROJECT NORTH HOLLYWOOD CENTRAL MND PROJECT # 10649.31
SITE ID
SITE ADDRESS 6830 HINDS AVE., NORTH HOLLYWOOD, CA 91605 OBSERVER(S) PETE VITAR
START DATE 3/5/18 END DATE 3/6/18
START TIME 11:30 AM END TIME 12:30 PM

METEOROLOGICAL CONDITIONS
TEMP – F HUMIDITY – % R.H. WIND [✓ CALM] LIGHT MODERATE
WINDSPD – MPH DIR. N NE S SE S SW W NW VARIABLE STEADY GUSTY
SKY SUNNY CLEAR OVRCAST PRTLY CLDY FOG RAIN

ACOUSTIC MEASUREMENTS
MEAS. INSTRUMENT PICCOLO SLM-P3 TYPE 1 [✓ 2] SERIAL # 14031/7004
CALIBRATOR BSWA CA 114 SERIAL # 490151
CALIBRATION CHECK PRE-TEST ____ dBA SPL POST-TEST ____ dBA SPL WINDSCRN YES

SETTINGS A-WTD [✓ SLOW] FAST FRONTAL RANDOM ANSI OTHER:

REC. #	3/5 BEGIN	3/6 END	Leq	Lmax	Lmin	L90	L50	L10	OTHER (SPECIFY METRIC
2-98 (LT-1)	11:18	11:18	70.6	89.1	51.2				

COMMENTS
24 HOUR READING WAS TAKEN ON PROJECT SITE (CURRENTLY A VACANT LOT) AT THE [illegible] CORNER OF HINDS AVE AND DEHOUGNE ST.

SOURCE INFO AND TRAFFIC COUNTS
PRIMARY NOISE SOURCE [✓ TRAFFIC] AIRCRAFT RAIL INDUSTRIAL OTHER:
ROADWAY TYPE: DIST. TO RDWY C/L OR EOP:
TRAFFIC COUNT DURATION: ____ MIN SPEED ____ MIN SPEED

COUNT 1 (OR RDWY 1)

DIRECTION	NB/EB	SB/WB	NB/EB	SB/WB
AUTOS				
MED TRKS				
HVY TRKS				
BUSES				
MOTRCLS				

IF COUNTING BOTH DIRECTIONS AS ONE, CHECK HERE ☐

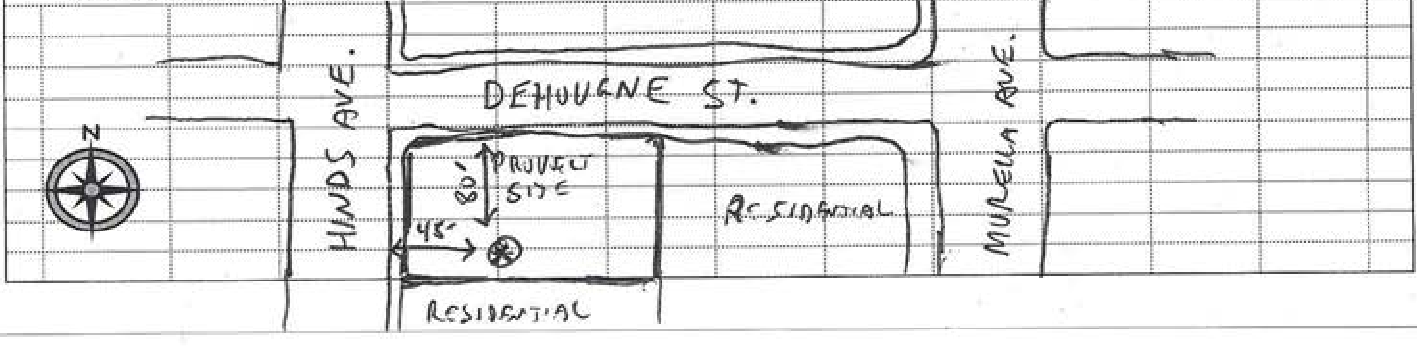
COUNT 2 (OR RDWY 2)

DIRECTION	NB/EB	SB/WB	NB/EB	SB/WB
AUTOS				
MED TRKS				
HVY TRKS				
BUSES				
MOTRCLS				

SPEEDS ESTIMATED BY: RADAR / DRIVING THE PACE
POSTED SPEED LIMIT SIGNS SAY:

OTHER NOISE SOURCES (BACKGROUND): DIST. AIRCRAFT RUSTLING LEAVES DIST. BARKING DOGS BIRDS DIST. INDUSTRIAL DIST. KIDS PLAYING DIST. CONVRSTNS / YELLING DIST. TRAFFIC (LIST RDWYS BELOW) DISTD GARDENERS/LANDSCAPING NOISE
OTHER: LOW FLYING JETS – SITE IS ON APPROACH FOR LANDING AT BURBANK AIRPORT.

DESCRIPTION / SKETCH
TERRAIN [✓ HARD] SOFT MIXED FLAT OTHER:
PHOTOS IMG 0652; IMG 0663; IMG 0664;
OTHER COMMENTS / SKETCH



DUDEK

FIELD NOISE MEASUREMENT DATA

PROJECT NORTH HOLLYWOOD CENTRAL MND
PROJECT # 10649.31
SITE ID
SITE ADDRESS 6830 HINDS AVE., NORTH HOLLYWOOD, CA 91605
OBSERVER(S) PETE VIJAR
START DATE 3/5/18
END DATE 3/5/18
START TIME 11:30AM
END TIME [illegible] 1:30PM

METEOROLOGICAL CONDITIONS
TEMP 68 F
HUMIDITY 20 % R.H.
WIND [✓ CALM] LIGHT MODERATE VARIABLE STEADY GUSTY
WINDSPD MPH
DIR. N NE S SE S SW W NW
SKY [✓ SUNNY] [✓ CLEAR] OVRCAST PRTLY CLDY FOG RAIN

ACOUSTIC MEASUREMENTS
MEAS. INSTRUMENT PICCOLO SLM-P3
TYPE 1 [✓ 2]
SERIAL # 12101800?
CALIBRATOR BSWA CA 114
SERIAL # 490151
CALIBRATION CHECK PRE-TEST ____ dBA SPL POST-TEST ____ dBA SPL
WINDSCRN YES

SETTINGS A-WTD [✓ SLOW] FAST FRONTAL RANDOM ANSI OTHER:

REC. #	BEGIN	END	Leq	Lmax	Lmin	L90	L50	L10	OTHER (SPECIFY METRIC
9-10 (ST1)	11:38	11:53	59.5	75.6	48.4				

COMMENTS
READING TAKEN AT CURB [illegible] AT SIDE OF 6902 HINDS AVE (ON DEHOUGNE ST) (MULTI-FAMILY RESIDENCE).

SOURCE INFO AND TRAFFIC COUNTS
PRIMARY NOISE SOURCE [✓ LIGHT TRAFFIC] AIRCRAFT RAIL INDUSTRIAL OTHER:
ROADWAY TYPE: ASPHALT
DIST. TO RDWY C/L OR EOP:
TRAFFIC COUNT DURATION: ____ MIN

COUNT 1 (OR RDWY 1)	SPEED NB/EB	SPEED SB/WB	SPEED NB/EB	SPEED SB/WB
DIRECTION	NB/EB	SB/WB	NB/EB	SB/WB
AUTOS				
MED TRKS				
HVY TRKS				
BUSES				
MOTRCLS				

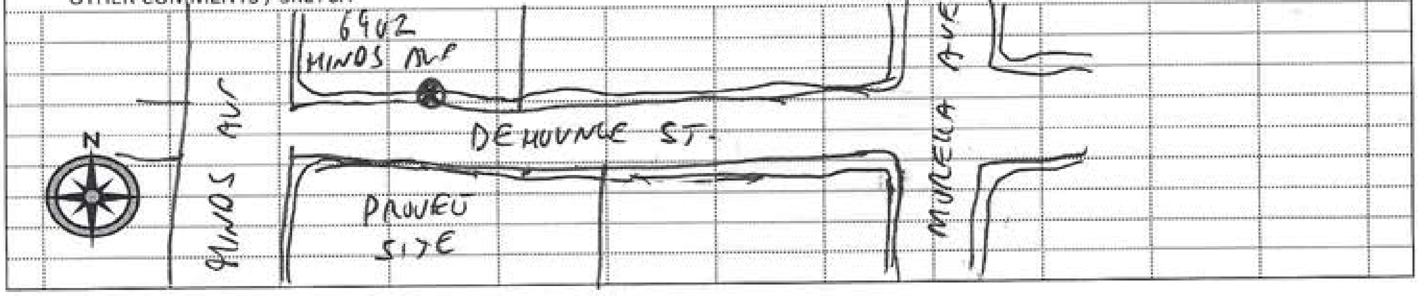
IF COUNTING BOTH DIRECTIONS AS ONE, CHECK HERE ____

COUNT 2 (OR RDWY 2)	MIN NB/EB	MIN SB/WB	SPEED NB/EB	SPEED SB/WB
AUTOS				
MED TRKS				
HVY TRKS				
BUSES				
MOTRCLS				

SPEEDS ESTIMATED BY: RADAR / DRIVING THE PACE
POSTED SPEED LIMIT SIGNS SAY:

OTHER NOISE SOURCES (BACKGROUND): DIST. AIRCRAFT RUSTLING LEAVES [✓ DIST. BARKING DOGS] [✓ BIRDS] DIST. INDUSTRIAL
DIST. KIDS PLAYING DIST. CONVRSTNS / YELLING DIST. TRAFFIC (LIST RDWYS BELOW) DISTD GARDENERS/LANDSCAPING NOISE
OTHER: LOW FLYING JETS - SITE IS ON APPROACH FOR LANDING AT BURBANK AIRPORT

DESCRIPTION / SKETCH
TERRAIN [✓ HARD] SOFT MIXED FLAT OTHER:
PHOTOS IMG 653; IMG 654
OTHER COMMENTS / SKETCH



FIELD NOISE MEASUREMENT DATA

DUDEK

PROJECT NORTH HOLLYWOOD CENTRAL MND
PROJECT # 10649.31
SITE ID
SITE ADDRESS 6830 HINDS AVE., NORTH HOLLYWOOD, CA 91605
OBSERVER(S) PETE VITAR
START DATE 3/5/18
END DATE 3/5/18
START TIME 11:30 AM
END TIME ~~[illegible]~~ 1:30 PM

METEOROLOGICAL CONDITIONS
TEMP 68 F
HUMIDITY 20 % R.H.
WIND [✓ CALM] LIGHT MODERATE VARIABLE STEADY GUSTY
WINDSPD MPH
DIR. N NE S SE S SW W NW
SKY [✓ SUNNY] [✓ CLEAR] OVRCAST PRTLY CLDY FOG RAIN

ACOUSTIC MEASUREMENTS
MEAS. INSTRUMENT PICCOLO SLM-P3
TYPE 1 [✓ 2]
SERIAL # 12/018007
CALIBRATOR BSWA CA 114
SERIAL # 490151
CALIBRATION CHECK PRE-TEST dBA SPL POST-TEST dBA SPL
WINDSCRN YES

SETTINGS A-WTD [✓ SLOW] FAST FRONTAL RANDOM ANSI OTHER:

REC. #	BEGIN	END	Leq	Lmax	Lmin	L90	L50	L10	OTHER (SPECIFY METRIC
11-12 (ST2)	11:57	12:12	65.3	82.0	49.4				

COMMENTS
READING TAKEN AT CURB IN FRONT OF 6850 MURELLA AVE (MULTI-FAMILY RESIDENTIAL).

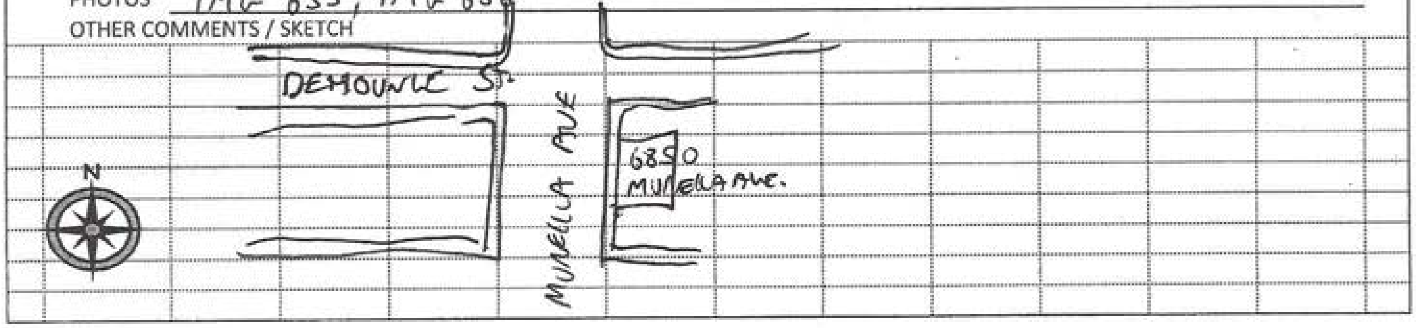
SOURCE INFO AND TRAFFIC COUNTS
PRIMARY NOISE SOURCE [✓ LIGHT TRAFFIC] AIRCRAFT RAIL INDUSTRIAL OTHER:
ROADWAY TYPE: ASPHALT
DIST. TO RDWY C/L OR EOP: AT CURB
TRAFFIC COUNT DURATION: MIN

	COUNT 1 (OR RDWY 1)					COUNT 2 (OR RDWY 2)			
	MIN		SPEED			MIN		SPEED	
DIRECTION	NB/EB	SB/WB	NB/EB	SB/WB	IF COUNTING BOTH DIRECTIONS AS ONE, CHECK HERE	NB/EB	SB/WB	NB/EB	SB/WB
AUTOS									
MED TRKS									
HVY TRKS									
BUSES									
MOTRCLS									

SPEEDS ESTIMATED BY: RADAR / DRIVING THE PACE
POSTED SPEED LIMIT SIGNS SAY:

OTHER NOISE SOURCES (BACKGROUND): DIST. AIRCRAFT RUSTLING LEAVES [✓ DIST. BARKING DOGS] BIRDS DIST. INDUSTRIAL DIST. KIDS PLAYING DIST. CONVRSTNS / YELLING DIST. TRAFFIC (LIST RDWYS BELOW) DISTD GARDENERS/LANDSCAPING NOISE
OTHER: LOW FLYING JETS - SITE IS ON APPROACH FOR LANDING AT BURBANK AIRPORT

DESCRIPTION / SKETCH
TERRAIN [✓ HARD] SOFT MIXED FLAT OTHER:
PHOTOS IMG 655; IMG 656
OTHER COMMENTS / SKETCH



DUDEK

FIELD NOISE MEASUREMENT DATA

PROJECT NORTH HOLLYWOOD CENTRAL MND **PROJECT #** 10649.31
SITE ID
SITE ADDRESS 6830 HINDS AVE., NORTH HOLLYWOOD, CA 91605 **OBSERVER(S)** PETE VITAR
START DATE 3/5/18 **END DATE** 3/5/18
START TIME 11:30AM **END TIME** 1:30PM

METEOROLOGICAL CONDITIONS
TEMP 68 F HUMIDITY 20 % R.H. WIND [✓ CALM] LIGHT MODERATE
WINDSPD ____ MPH DIR. N NE S SE S SW W NW VARIABLE STEADY GUSTY
SKY [✓ SUNNY] [✓ CLEAR] OVRCAST PRTLY CLDY FOG RAIN

ACOUSTIC MEASUREMENTS
MEAS. INSTRUMENT PICCOLO SLM-P3 TYPE 1 [✓ 2] SERIAL # 12101800?
CALIBRATOR BSWA CA 114 SERIAL # 490151
CALIBRATION CHECK PRE-TEST ____ dBA SPL POST-TEST ____ dBA SPL WINDSCRN YES

SETTINGS A-WTD [✓ SLOW] FAST FRONTAL RANDOM ANSI OTHER: ____

REC. #	BEGIN	END	Leq	Lmax	Lmin	L90	L50	L10	OTHER (SPECIFY METRIC
13-14 (ST3)	12:17	12:32	69.1	88.6	48.9				

COMMENTS
READING TAKE AT CURB IN FRONT OF 11751 HART ST. (MULTI-FAMILY RESIDENTIAL).

SOURCE INFO AND TRAFFIC COUNTS
PRIMARY NOISE SOURCE [✓ MODERATE TRAFFIC] AIRCRAFT RAIL INDUSTRIAL OTHER: ____
ROADWAY TYPE: ASPHALT DIST. TO RDWY C/L OR EOP: AT CURB
TRAFFIC COUNT DURATION: ____ MIN

COUNT 1 (OR RDWY 1)

DIRECTION	NB/EB	SB/WB	SPEED NB/EB	SPEED SB/WB
AUTOS				
MED TRKS				
HVY TRKS				
BUSES				
MOTRCLS				

IF COUNTING BOTH DIRECTIONS AS ONE, CHECK HERE ____

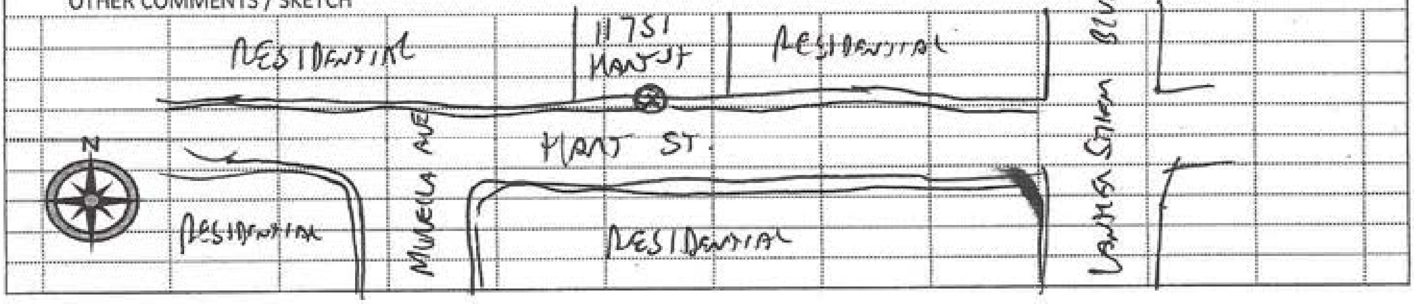
COUNT 2 (OR RDWY 2)

DIRECTION	NB/EB	SB/WB	SPEED NB/EB	SPEED SB/WB
AUTOS				
MED TRKS				
HVY TRKS				
BUSES				
MOTRCLS				

SPEEDS ESTIMATED BY: RADAR / DRIVING THE PACE
POSTED SPEED LIMIT SIGNS SAY:

OTHER NOISE SOURCES (BACKGROUND): DIST. AIRCRAFT RUSTLING LEAVES DIST. BARKING DOGS BIRDS DIST. INDUSTRIAL DIST. KIDS PLAYING DIST. CONVRSTNS / YELLING DIST. TRAFFIC (LIST RDWYS BELOW) DISTD GARDENERS/LANDSCAPING NOISE
OTHER: LOW FLYING JETS - SITE IS ON APPROACH FOR LANDING AT BURBANK AIRPORT

DESCRIPTION / SKETCH
TERRAIN [✓ HARD] SOFT MIXED FLAT OTHER: ____
PHOTOS IMG 658; IMG 659
OTHER COMMENTS / SKETCH



DUDEK

FIELD NOISE MEASUREMENT DATA

PROJECT NORTH HOLLYWOOD CENTRAL MND
PROJECT # 10649.31
SITE ID
SITE ADDRESS 6830 HINDS AVE., NORTH HOLLYWOOD, CA 91605
OBSERVER(S) PETE VITAR
START DATE 3/5/18 **END DATE** 3/5/18
START TIME 11:30AM **END TIME** 1:30 PM

METEOROLOGICAL CONDITIONS
TEMP 68 F **HUMIDITY** 20 % R.H. **WIND** [✓ CALM] LIGHT MODERATE VARIABLE STEADY GUSTY
WINDSPD MPH **DIR.** N NE S SE S SW W NW
SKY [✓ SUNNY] [✓ CLEAR] OVRCAST PRTLY CLDY FOG RAIN

ACOUSTIC MEASUREMENTS
MEAS. INSTRUMENT PICCOLO SLM-P3 **TYPE** 1 [✓ 2] **SERIAL #** 121018007
CALIBRATOR BSWA CA 114 **SERIAL #** 490151
CALIBRATION CHECK PRE-TEST dBA SPL POST-TEST dBA SPL **WINDSCRN** YES

SETTINGS A-WTD [✓ SLOW] FAST FRONTAL RANDOM ANSI OTHER:

REC. #	BEGIN	END	Leq	Lmax	Lmin	L90	L50	L10	OTHER (SPECIFY METRIC
15-16 (ST4)	12:50	1:05	58.1	78.4	47.6				

COMMENTS
READING TAKEN AT CURB IN FRONT OF 7512 VANTAGE DR. (SINGLE FAMILY RESIDENTIAL).

SOURCE INFO AND TRAFFIC COUNTS
PRIMARY NOISE SOURCE [✓ LIGHT TRAFFIC] AIRCRAFT RAIL INDUSTRIAL OTHER:
ROADWAY TYPE: ASPHALT DIST. TO RDWY C/L OR EOP: AT CURB
TRAFFIC COUNT DURATION: MIN SPEED MIN SPEED

	DIRECTION	NB/EB	SB/WB	NB/EB	SB/WB
COUNT 1 (OR RDWY 1)	AUTOS				
	MED TRKS				
	HVY TRKS				
	BUSES				
	MOTRCLS				

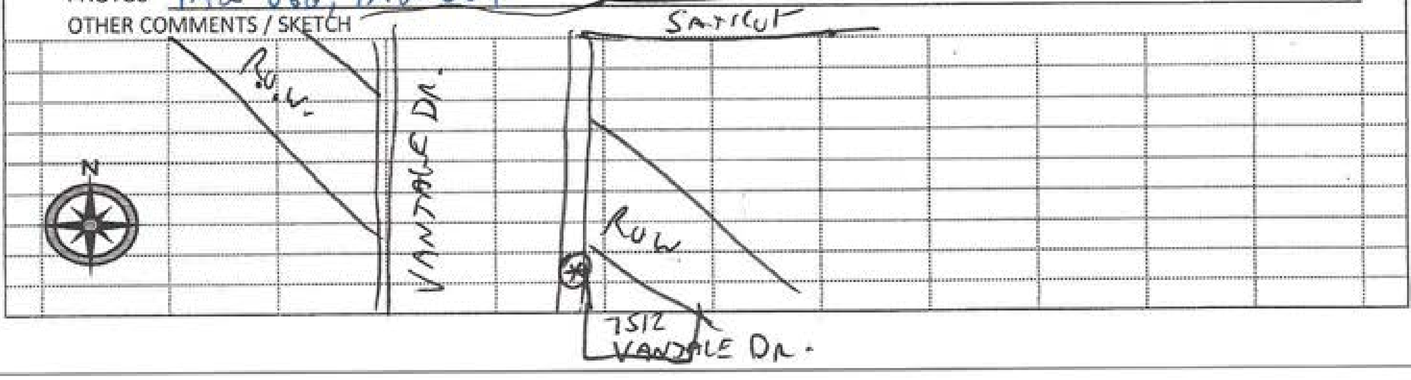
IF COUNTING BOTH DIRECTIONS AS ONE, CHECK HERE

	DIRECTION	NB/EB	SB/WB	NB/EB	SB/WB
COUNT 2 (OR RDWY 2)	AUTOS				
	MED TRKS				
	HVY TRKS				
	BUSES				
	MOTRCLS				

SPEEDS ESTIMATED BY: RADAR / DRIVING THE PACE
POSTED SPEED LIMIT SIGNS SAY:

OTHER NOISE SOURCES (BACKGROUND): DIST. AIRCRAFT RUSTLING LEAVES DIST. BARKING DOGS [✓ BIRDS] DIST. INDUSTRIAL DIST. KIDS PLAYING [✓ DIST. CONVRSTNS] / YELLING DIST. TRAFFIC (LIST RDWYS BELOW) DISTD GARDENERS/LANDSCAPING NOISE
OTHER:

DESCRIPTION / SKETCH
TERRAIN [✓ HARD] SOFT MIXED FLAT OTHER:
PHOTOS IMG 666; IMG 667
OTHER COMMENTS / SKETCH



Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 3/14/2018
Case Description: Concrete Reinforcment and Placement

---- Receptor #1 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Residential - Nearest	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Crane	No	16		80.6	90	0
Pumps	No	50		80.9	110	0
Roller	No	20		80	110	0
Concrete Pump Truck	No	20		81.4	140	0

Results

Equipment		Calculated (dBA) *Lmax	Leq	Noise Limits (dBA) Day Lmax	Leq	Evening Lmax	Leq	Night Lmax
Crane		75.4	67.5	N/A	N/A	N/A	N/A	N/A
Pumps		74.1	71.1	N/A	N/A	N/A	N/A	N/A
Roller		73.2	66.2	N/A	N/A	N/A	N/A	N/A
Concrete Pump Truck		72.5	65.5	N/A	N/A	N/A	N/A	N/A
	Total	75.4	74.2	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Residential - Typical	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Crane	No	16		80.6	140	0
Pumps	No	50		80.9	140	0
Roller	No	20		80	140	0
Concrete Pump Truck	No	20		81.4	140	0

Results

Calculated (dBA) Noise Limits (dBA)

Day Evening Night

Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax
Crane		71.6	63.6	N/A	N/A	N/A	N/A	N/A
Pumps		72	69	N/A	N/A	N/A	N/A	N/A
Roller		71.1	64.1	N/A	N/A	N/A	N/A	N/A
Concrete Pump Truck		72.5	65.5	N/A	N/A	N/A	N/A	N/A
	Total	72.5	72.1	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 3/14/2018
Case Description: Demo, Clear and Grub

---- Receptor #1 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Residential - Nearest	Residential	65	60	55

Description		Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Backhoe		No	40		77.6	60	0
Dump Truck		No	40		76.5	75	0
Front End Loader		No	40		79.1	80	0
Dozer		No	40		81.7	100	0
Roller		No	20		80	65	0

				Results				
		Calculated (dBA)			Noise Limits (dBA)			
				Day		Evening		Night
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax
Backhoe		76	72	N/A	N/A	N/A	N/A	N/A
Dump Truck		72.9	68.9	N/A	N/A	N/A	N/A	N/A
Front End Loader		75	71	N/A	N/A	N/A	N/A	N/A
Dozer		75.6	71.7	N/A	N/A	N/A	N/A	N/A
Roller		77.7	70.7	N/A	N/A	N/A	N/A	N/A
	Total	77.7	78	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Residential - Typical	Residential	65	60	55

Equipment

Description	Impact Device	Usage(%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Backhoe	No	40		77.6	140	0
Dump Truck	No	40		76.5	140	0
Front End Loader	No	40		79.1	140	0
Dozer	No	40		81.7	140	0
Roller	No	20		80	140	0

Results

	Calculated (dBA)		Noise Limits (dBA)				
			Day		Evening		Night
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax
Backhoe	68.6	64.6	N/A	N/A	N/A	N/A	N/A
Dump Truck	67.5	63.5	N/A	N/A	N/A	N/A	N/A
Front End Loader	70.2	66.2	N/A	N/A	N/A	N/A	N/A
Dozer	72.7	68.7	N/A	N/A	N/A	N/A	N/A
Roller	71.1	64.1	N/A	N/A	N/A	N/A	N/A
Total	72.7	72.9	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 3/14/2018
Case Description: Excavate and Install Conduit

---- Receptor #1 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Residential - Nearest	Residential	65	60	55

Equipment

Description	Impact Device	Usage(%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Backhoe	No	40		77.6	90	0
Front End Loader	No	40		79.1	100	0
Dozer	No	40		81.7	110	0
Flat Bed Truck	No	40		74.3	140	0

Results

	Calculated (dBA)		Noise Limits (dBA)				
			Day		Evening		Night
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax
Backhoe	72.5	68.5	N/A	N/A	N/A	N/A	N/A
Front End Loader	73.1	69.1	N/A	N/A	N/A	N/A	N/A

Dozer		74.8	70.8	N/A	N/A	N/A	N/A	N/A
Flat Bed Truck		65.3	61.3	N/A	N/A	N/A	N/A	N/A
	Total	74.8	74.6	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Residential - Typical	Residential	65	60	55

Description		Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Backhoe		No	40		77.6	140	0
Front End Loader		No	40		79.1	140	0
Dozer		No	40		81.7	140	0
Flat Bed Truck		No	40		74.3	140	0

Results

		Calculated (dBA)		Noise Limits (dBA)				
				Day		Evening		Night
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax
Backhoe		68.6	64.6	N/A	N/A	N/A	N/A	N/A
Front End Loader		70.2	66.2	N/A	N/A	N/A	N/A	N/A
Dozer		72.7	68.7	N/A	N/A	N/A	N/A	N/A
Flat Bed Truck		65.3	61.3	N/A	N/A	N/A	N/A	N/A
	Total	72.7	72	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 3/15/2018

Case Description: Excavate for Piping

---- Receptor #1 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Residential - Nearest	Residential	65	60	55

Description		Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Backhoe		No	40		77.6	75	0
Front End Loader		No	40		79.1	100	0
Dozer		No	40		81.7	110	0

Backhoe		No	40		77.6	140	0
Dump Truck		No	40		76.5	175	0
Front End Loader		No	40		79.1	100	0
Backhoe		No	40		77.6	125	0
Front End Loader		No	40		79.1	150	0

Results

		Calculated (dBA)			Noise Limits (dBA)			
				Day		Evening		Night
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax
Backhoe		74	70.1	N/A	N/A	N/A	N/A	N/A
Front End Loader		73.1	69.1	N/A	N/A	N/A	N/A	N/A
Dozer		74.8	70.8	N/A	N/A	N/A	N/A	N/A
Backhoe		68.6	64.6	N/A	N/A	N/A	N/A	N/A
Dump Truck		65.6	61.6	N/A	N/A	N/A	N/A	N/A
Front End Loader		73.1	69.1	N/A	N/A	N/A	N/A	N/A
Backhoe		69.6	65.6	N/A	N/A	N/A	N/A	N/A
Front End Loader		69.6	65.6	N/A	N/A	N/A	N/A	N/A
	Total	74.8	77	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Residential - Typical	Residential	65	60	55

Description		Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Backhoe		No	40		77.6	140	0
Front End Loader		No	40		79.1	140	0
Dozer		No	40		81.7	140	0
Backhoe		No	40		77.6	140	0
Dump Truck		No	40		76.5	140	0
Front End Loader		No	40		79.1	140	0
Backhoe		No	40		77.6	140	0
Front End Loader		No	40		79.1	140	0

Results

		Calculated (dBA)			Noise Limits (dBA)			
				Day		Evening		Night
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax
Backhoe		68.6	64.6	N/A	N/A	N/A	N/A	N/A
Front End Loader		70.2	66.2	N/A	N/A	N/A	N/A	N/A
Dozer		72.7	68.7	N/A	N/A	N/A	N/A	N/A
Backhoe		68.6	64.6	N/A	N/A	N/A	N/A	N/A

Dump Truck		67.5	63.5	N/A	N/A	N/A	N/A	N/A
Front End Loader		70.2	66.2	N/A	N/A	N/A	N/A	N/A
Backhoe		68.6	64.6	N/A	N/A	N/A	N/A	N/A
Front End Loader		70.2	66.2	N/A	N/A	N/A	N/A	N/A
	Total	72.7	74.9	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 3/14/2018
Case Description: Excavate Piping_Well Field

---- Receptor #1 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Residential - Nearest	Residential	65	60	55

Equipment

Description	Impact Device	Usage(%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Backhoe	No	40		77.6	30	0
Front End Loader	No	40		79.1	40	0
Dozer	No	40		81.7	40	0
Flat Bed Truck	No	40		74.3	50	0

Results

		Calculated (dBA)		Noise Limits (dBA)				
				Day		Evening		Night
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax
Backhoe		82	78	N/A	N/A	N/A	N/A	N/A
Front End Loader		81	77.1	N/A	N/A	N/A	N/A	N/A
Dozer		83.6	79.6	N/A	N/A	N/A	N/A	N/A
Flat Bed Truck		74.3	70.3	N/A	N/A	N/A	N/A	N/A
	Total	83.6	83.4	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Residential - Typical	Residential	65	60	55

Equipment

Description	Impact Device	Usage(%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Backhoe	No	40		77.6	150	0

Front End Loader	No	40		79.1	150	0
Dozer	No	40		81.7	150	0
Flat Bed Truck	No	40		74.3	150	0

Results

		Calculated (dBA)			Noise Limits (dBA)			
				Day		Evening		Night
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax
Backhoe		68	64	N/A	N/A	N/A	N/A	N/A
Front End Loader		69.6	65.6	N/A	N/A	N/A	N/A	N/A
Dozer		72.1	68.1	N/A	N/A	N/A	N/A	N/A
Flat Bed Truck		64.7	60.7	N/A	N/A	N/A	N/A	N/A
	Total	72.1	71.4	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 3/15/2018
Case Description: Excavation_Structure

---- Receptor #1 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Residential - Nearest	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Backhoe	No	40		77.6	65	0
Front End Loader	No	40		79.1	80	0
Backhoe	No	40		77.6	75	0
Front End Loader	No	40		79.1	100	0
Dump Truck	No	40		76.5	85	0
Dozer	No	40		81.7	125	0
Front End Loader	No	40		79.1	150	0
Flat Bed Truck	No	40		74.3	100	0
Dozer	No	40		81.7	125	0
Roller	No	20		80	140	0

Results

	Calculated (dBA)			Noise Limits (dBA)			
			Day		Evening		Night
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax
Backhoe	75.3	71.3	N/A	N/A	N/A	N/A	N/A
Front End Loader	75	71	N/A	N/A	N/A	N/A	N/A
Backhoe	74	70.1	N/A	N/A	N/A	N/A	N/A

Front End Loader		73.1	69.1	N/A	N/A	N/A	N/A	N/A
Dump Truck		71.8	67.9	N/A	N/A	N/A	N/A	N/A
Dozer		73.7	69.7	N/A	N/A	N/A	N/A	N/A
Front End Loader		69.6	65.6	N/A	N/A	N/A	N/A	N/A
Flat Bed Truck		68.2	64.3	N/A	N/A	N/A	N/A	N/A
Dozer		73.7	69.7	N/A	N/A	N/A	N/A	N/A
Roller		71.1	64.1	N/A	N/A	N/A	N/A	N/A
	Total	75.3	78.9	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Residential - Typical	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Backhoe	No	40		77.6	150	0
Front End Loader	No	40		79.1	150	0
Backhoe	No	40		77.6	150	0
Front End Loader	No	40		79.1	150	0
Dump Truck	No	40		76.5	150	0
Dozer	No	40		81.7	150	0
Front End Loader	No	40		79.1	150	0
Flat Bed Truck	No	40		74.3	150	0
Dozer	No	40		81.7	150	0
Roller	No	20		80	150	0

Results

		Calculated (dBA)			Noise Limits (dBA)			
				Day		Evening		Night
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax
Backhoe		68	64	N/A	N/A	N/A	N/A	N/A
Front End Loader		69.6	65.6	N/A	N/A	N/A	N/A	N/A
Backhoe		68	64	N/A	N/A	N/A	N/A	N/A
Front End Loader		69.6	65.6	N/A	N/A	N/A	N/A	N/A
Dump Truck		66.9	62.9	N/A	N/A	N/A	N/A	N/A
Dozer		72.1	68.1	N/A	N/A	N/A	N/A	N/A
Front End Loader		69.6	65.6	N/A	N/A	N/A	N/A	N/A
Flat Bed Truck		64.7	60.7	N/A	N/A	N/A	N/A	N/A
Dozer		72.1	68.1	N/A	N/A	N/A	N/A	N/A
Roller		70.5	63.5	N/A	N/A	N/A	N/A	N/A
	Total	72.1	75.4	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 3/14/2018
Case Description: Excavate and Install (Trunk Piping)

---- Receptor #1 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Residential - Nearest	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Backhoe	No	40		77.6	35	0
Front End Loader	No	40		79.1	50	0
Dozer	No	40		81.7	50	0
Front End Loader	No	40		79.1	65	0
Flat Bed Truck	No	40		74.3	65	0

Results

		Calculated (dBA)		Noise Limits (dBA)				
				Day		Evening		Night
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax
Backhoe		80.7	76.7	N/A	N/A	N/A	N/A	N/A
Front End Loader		79.1	75.1	N/A	N/A	N/A	N/A	N/A
Dozer		81.7	77.7	N/A	N/A	N/A	N/A	N/A
Front End Loader		76.8	72.9	N/A	N/A	N/A	N/A	N/A
Flat Bed Truck		72	68	N/A	N/A	N/A	N/A	N/A
	Total	81.7	82.1	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Residential - Typical	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Backhoe	No	40		77.6	150	0
Front End Loader	No	40		79.1	150	0
Dozer	No	40		81.7	150	0
Front End Loader	No	40		79.1	150	0
Flat Bed Truck	No	40		74.3	150	0

				Results				
		Calculated (dBA)			Noise Limits (dBA)			
				Day		Evening		Night
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax
Backhoe		68	64	N/A	N/A	N/A	N/A	N/A
Front End Loader		69.6	65.6	N/A	N/A	N/A	N/A	N/A
Dozer		72.1	68.1	N/A	N/A	N/A	N/A	N/A
Front End Loader		69.6	65.6	N/A	N/A	N/A	N/A	N/A
Flat Bed Truck		64.7	60.7	N/A	N/A	N/A	N/A	N/A
	Total	72.1	72.4	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 3/14/2018
Case Description: Structure & Miscellaneous

---- Receptor #1 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Residential - Nearest	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Crane	No	16		80.6	75	0
Flat Bed Truck	No	40		74.3	85	0
Man Lift	No	20		74.7	85	0

				Results				
		Calculated (dBA)			Noise Limits (dBA)			
				Day		Evening		Night
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax
Crane		77	69.1	N/A	N/A	N/A	N/A	N/A
Flat Bed Truck		69.6	65.7	N/A	N/A	N/A	N/A	N/A
Man Lift		70.1	63.1	N/A	N/A	N/A	N/A	N/A
	Total	77	71.4	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Residential - Typical	Residential	65	60	55

			Equipment Spec	Actual	Receptor	Estimated

Description	Impact Device	Usage(%)	Lmax (dBA)	Lmax (dBA)	Distance (feet)	Shielding (dBA)
Crane	No	16		80.6	150	0
Flat Bed Truck	No	40		74.3	150	0
Man Lift	No	20		74.7	150	0

			Results				
	Calculated (dBA)			Noise Limits (dBA)			
			Day		Evening		Night
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax
Crane	71	63	N/A	N/A	N/A	N/A	N/A
Flat Bed Truck	64.7	60.7	N/A	N/A	N/A	N/A	N/A
Man Lift	65.2	58.2	N/A	N/A	N/A	N/A	N/A
Total	71	65.9	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

APPENDIX D

Traffic

- Intersection Turn Movement Counts

National Data & Surveying Services Intersection Turning Movement Count

Location: Laurel Canyon Blvd & Runnymede St
City: North Hollywood
Control: 1-Way Stop(WB)

Project ID: 18-05143-001
Date: 3/7/2018

Total

NS/EW Streets:	Laurel Canyon Blvd				Laurel Canyon Blvd				Runnymede St				Runnymede St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	3	0	0	1	2	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	65	2	0	8	204	0	0	0	0	0	0	19	0	16	0	314
7:15 AM	0	82	5	0	3	234	0	0	0	0	0	0	18	0	23	0	365
7:30 AM	0	134	8	0	6	254	0	0	0	0	0	0	9	0	27	0	438
7:45 AM	0	142	5	3	16	273	1	0	0	0	0	0	12	0	35	0	487
8:00 AM	0	133	4	1	30	238	0	0	0	0	0	0	3	0	12	0	421
8:15 AM	0	93	6	0	7	214	0	0	0	0	0	0	8	0	6	0	334
8:30 AM	0	90	4	0	5	196	1	0	0	0	0	0	3	0	7	0	306
8:45 AM	0	95	0	0	10	157	0	0	0	0	0	0	5	0	5	0	272
9:00 AM	0	96	5	0	8	152	1	0	0	0	0	0	8	0	7	0	277
9:15 AM	0	100	1	0	8	137	0	0	0	0	0	0	5	0	12	2	265
9:30 AM	1	96	7	0	2	146	0	0	0	0	0	0	8	0	9	0	269
9:45 AM	0	103	4	0	3	130	1	0	0	0	0	0	5	0	5	0	251
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	1	1229	51	4	106	2335	4	0	0	0	0	0	103	0	164	2	3999
APPROACH %'s :	0.08%	95.64%	3.97%	0.31%	4.34%	95.50%	0.16%	0.00%					38.29%	0.00%	60.97%	0.74%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	0	491	22	4	55	999	1	0	0	0	0	0	42	0	97	0	1711
PEAK HR FACTOR :	0.000	0.864	0.688	0.333	0.458	0.915	0.250	0.000	0.000	0.000	0.000	0.000	0.583	0.000	0.693	0.000	0.878
		0.862				0.909								0.739			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	3	0	0	1	2	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	0	226	8	0	8	143	0	2	0	0	0	0	6	0	19	0	412
3:15 PM	1	198	8	1	18	152	0	1	0	0	0	0	9	0	16	0	404
3:30 PM	0	274	11	0	10	149	0	1	0	0	0	0	5	0	11	0	461
3:45 PM	1	278	9	0	16	161	0	0	0	0	0	0	10	0	15	0	490
4:00 PM	0	310	11	0	11	122	3	1	0	0	0	0	12	0	16	0	486
4:15 PM	1	290	10	0	13	140	0	0	0	0	0	0	8	0	12	0	474
4:30 PM	2	338	14	2	8	145	0	3	0	0	0	0	10	0	18	0	540
4:45 PM	0	318	8	1	10	129	0	2	0	0	0	0	4	0	19	0	491
5:00 PM	0	326	7	1	18	166	0	2	0	0	0	0	5	0	18	0	543
5:15 PM	0	329	16	0	11	149	0	2	0	0	0	0	4	0	17	0	528
5:30 PM	0	313	11	0	19	141	0	1	0	0	0	0	5	0	19	0	509
5:45 PM	0	321	9	0	21	143	0	0	0	0	0	0	6	0	20	0	520
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	5	3521	122	5	163	1740	3	15	0	0	0	0	84	0	200	0	5858
APPROACH %'s :	0.14%	96.39%	3.34%	0.14%	8.49%	90.58%	0.16%	0.78%					29.58%	0.00%	70.42%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	2	1311	45	4	47	589	0	9	0	0	0	0	23	0	72	0	2102
PEAK HR FACTOR :	0.250	0.970	0.703	0.500	0.653	0.887	0.000	0.750	0.000	0.000	0.000	0.000	0.575	0.000	0.947	0.000	0.968
		0.956				0.867								0.848			

National Data & Surveying Services Intersection Turning Movement Count

Location: Laurel Canyon Blvd & Runnymede St
City: North Hollywood
Control: 1-Way Stop(WB)

Project ID: 18-05143-001
Date: 3/7/2018

Cars

NS/EW Streets:	Laurel Canyon Blvd				Laurel Canyon Blvd				Runnymede St				Runnymede St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	3	0	0	1	2	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	61	2	0	8	196	0	0	0	0	0	0	18	0	16	0	301
7:15 AM	0	77	4	0	3	228	0	0	0	0	0	0	18	0	23	0	353
7:30 AM	0	128	8	0	5	248	0	0	0	0	0	0	9	0	26	0	424
7:45 AM	0	135	4	3	16	266	1	0	0	0	0	0	12	0	34	0	471
8:00 AM	0	128	3	1	30	231	0	0	0	0	0	0	3	0	12	0	408
8:15 AM	0	84	4	0	7	206	0	0	0	0	0	0	8	0	6	0	315
8:30 AM	0	84	4	0	5	180	1	0	0	0	0	0	3	0	7	0	284
8:45 AM	0	89	0	0	10	147	0	0	0	0	0	0	5	0	5	0	256
9:00 AM	0	83	4	0	8	146	1	0	0	0	0	0	8	0	7	0	257
9:15 AM	0	85	1	0	8	130	0	0	0	0	0	0	5	0	12	2	243
9:30 AM	1	91	6	0	2	139	0	0	0	0	0	0	8	0	8	0	255
9:45 AM	0	100	4	0	3	127	1	0	0	0	0	0	5	0	5	0	245
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	1	1145	44	4	105	2244	4	0	0	0	0	0	102	0	161	2	3812
APPROACH %'s :	0.08%	95.90%	3.69%	0.34%	4.46%	95.37%	0.17%	0.00%					38.49%	0.00%	60.75%	0.75%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	0	468	19	4	54	973	1	0	0	0	0	0	42	0	95	0	1656
PEAK HR FACTOR :	0.00	0.867	0.594	0.333	0.450	0.914	0.250	0.000	0.000	0.000	0.000	0.000	0.583	0.000	0.699	0.000	0.879
		0.864				0.908								0.745			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	3	0	0	1	2	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	0	222	8	0	8	138	0	2	0	0	0	0	5	0	18	0	401
3:15 PM	1	189	7	0	18	147	0	1	0	0	0	0	8	0	16	0	387
3:30 PM	0	263	10	0	10	139	0	1	0	0	0	0	5	0	10	0	438
3:45 PM	1	269	9	0	14	157	0	0	0	0	0	0	9	0	15	0	474
4:00 PM	0	305	11	0	10	117	3	0	0	0	0	0	12	0	16	0	474
4:15 PM	1	279	9	0	13	135	0	0	0	0	0	0	7	0	10	0	454
4:30 PM	2	330	12	2	8	139	0	2	0	0	0	0	10	0	16	0	521
4:45 PM	0	310	8	1	9	118	0	2	0	0	0	0	4	0	19	0	471
5:00 PM	0	318	6	1	18	159	0	2	0	0	0	0	4	0	18	0	526
5:15 PM	0	320	16	0	11	148	0	2	0	0	0	0	4	0	16	0	517
5:30 PM	0	310	11	0	19	137	0	1	0	0	0	0	5	0	19	0	502
5:45 PM	0	314	9	0	21	140	0	0	0	0	0	0	6	0	20	0	510
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	5	3429	116	4	159	1674	3	13	0	0	0	0	79	0	193	0	5675
APPROACH %'s :	0.14%	96.48%	3.26%	0.11%	8.60%	90.54%	0.16%	0.70%					29.04%	0.00%	70.96%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	2	1278	42	4	46	564	0	8	0	0	0	0	22	0	69	0	2035
PEAK HR FACTOR :	0.25	0.968	0.656	0.500	0.639	0.887	0.000	1.000	0.000	0.000	0.000	0.000	0.550	0.000	0.908	0.000	0.967
		0.958				0.863								0.875			

National Data & Surveying Services Intersection Turning Movement Count

Location: Laurel Canyon Blvd & Runnymede St
City: North Hollywood
Control: 1-Way Stop(WB)

Project ID: 18-05143-001
Date: 3/7/2018

HT

NS/EW Streets:	Laurel Canyon Blvd				Laurel Canyon Blvd				Runnymede St				Runnymede St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	3	0	0	1	2	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	3	0	0	0	7	0	0	0	0	0	0	1	0	0	0	11
7:15 AM	0	4	1	0	0	5	0	0	0	0	0	0	0	0	0	0	10
7:30 AM	0	5	0	0	1	5	0	0	0	0	0	0	0	0	1	0	12
7:45 AM	0	6	1	0	0	6	0	0	0	0	0	0	0	0	1	0	14
8:00 AM	0	4	1	0	0	7	0	0	0	0	0	0	0	0	0	0	12
8:15 AM	0	8	2	0	0	7	0	0	0	0	0	0	0	0	0	0	17
8:30 AM	0	5	0	0	0	15	0	0	0	0	0	0	0	0	0	0	20
8:45 AM	0	6	0	0	0	10	0	0	0	0	0	0	0	0	0	0	16
9:00 AM	0	12	1	0	0	5	0	0	0	0	0	0	0	0	0	0	18
9:15 AM	0	15	0	0	0	6	0	0	0	0	0	0	0	0	0	0	21
9:30 AM	0	4	1	0	0	7	0	0	0	0	0	0	0	0	1	0	13
9:45 AM	0	3	0	0	0	2	0	0	0	0	0	0	0	0	0	0	5
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	75	7	0	1	82	0	0	0	0	0	0	1	0	3	0	169
APPROACH %'s :	0.00%	91.46%	8.54%	0.00%	1.20%	98.80%	0.00%	0.00%					25.00%	0.00%	75.00%	0.00%	
PEAK HR :	**07:15 AM - 08:15 AM**																TOTAL
PEAK HR VOL :	0	19	3	0	1	23	0	0	0	0	0	0	0	0	2	0	48
PEAK HR FACTOR :	0.000	0.792	0.750	0.000	0.250	0.821	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.857
	0.786				0.857								0.500				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	3	0	0	1	2	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	0	3	0	0	0	4	0	0	0	0	0	0	1	0	1	0	9
3:15 PM	0	8	1	1	0	5	0	0	0	0	0	0	1	0	0	0	16
3:30 PM	0	10	1	0	0	8	0	0	0	0	0	0	0	0	1	0	20
3:45 PM	0	8	0	0	2	4	0	0	0	0	0	0	1	0	0	0	15
4:00 PM	0	4	0	0	1	4	0	1	0	0	0	0	0	0	0	0	10
4:15 PM	0	11	1	0	0	4	0	0	0	0	0	0	1	0	2	0	19
4:30 PM	0	7	2	0	0	6	0	1	0	0	0	0	0	0	2	0	18
4:45 PM	0	7	0	0	1	10	0	0	0	0	0	0	0	0	0	0	18
5:00 PM	0	8	1	0	0	6	0	0	0	0	0	0	1	0	0	0	16
5:15 PM	0	7	0	0	0	1	0	0	0	0	0	0	0	0	1	0	9
5:30 PM	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	6
5:45 PM	0	6	0	0	0	3	0	0	0	0	0	0	0	0	0	0	9
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	82	6	1	4	58	0	2	0	0	0	0	5	0	7	0	165
APPROACH %'s :	0.00%	92.13%	6.74%	1.12%	6.25%	90.63%	0.00%	3.13%					41.67%	0.00%	58.33%	0.00%	
PEAK HR :	**04:30 PM - 05:30 PM**																TOTAL
PEAK HR VOL :	0	29	3	0	1	23	0	1	0	0	0	0	1	0	3	0	61
PEAK HR FACTOR :	0.00	0.906	0.375	0.000	0.250	0.575	0.000	0.250	0.000	0.000	0.000	0.000	0.250	0.000	0.375	0.000	0.847
	0.889				0.568								0.500				

National Data & Surveying Services Intersection Turning Movement Count

Location: Laurel Canyon Blvd & Runnymede St
City: North Hollywood
Control: 1-Way Stop(WB)

Project ID: 18-05143-001
Date: 3/7/2018

Buses

NS/EW Streets:	Laurel Canyon Blvd				Laurel Canyon Blvd				Runnymede St				Runnymede St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	3	0	0	1	2	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
7:15 AM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
7:30 AM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
7:45 AM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
8:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:15 AM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
8:30 AM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
9:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
9:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
9:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	9	0	0	0	9	0	0	0	0	0	0	0	0	0	0	18
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%									
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	0	4	0	0	0	3	0	0	0	0	0	0	0	0	0	0	7
PEAK HR FACTOR :	0.000	1.000	0.000	0.000	0.000	0.750	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.875
	1.000				0.750												

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	3	0	0	1	2	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
3:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
3:30 PM	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	3
3:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:00 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
4:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
4:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:45 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
5:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
5:15 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	10	0	0	0	8	0	0	0	0	0	0	0	0	0	0	18
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%									
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	0	4	0	0	0	2	0	0	0	0	0	0	0	0	0	0	6
PEAK HR FACTOR :	0.00	0.500	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.750
	0.500				0.500												

National Data & Surveying Services Intersection Turning Movement Count

Location: Laurel Canyon Blvd & Runnymede St
City: North Hollywood
Control: 1-Way Stop(WB)

Project ID: 18-05143-001
Date: 3/7/2018

Bikes

NS/EW Streets:	Laurel Canyon Blvd				Laurel Canyon Blvd				Runnymede St				Runnymede St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	3	0	0	1	2	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
7:15 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
7:45 AM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
8:00 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
9:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2
9:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	2	0	0	0	9	0	0	0	0	0	0	1	0	1	0	13
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%					50.00%	0.00%	50.00%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	0	1	0	0	0	5	0	0	0	0	0	0	0	0	1	0	7
PEAK HR FACTOR :	0.000	0.250	0.000	0.000	0.000	0.625	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.875
	0.250				0.625								0.250				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	3	0	0	1	2	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
3:30 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
3:45 PM	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	3
4:00 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
4:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
4:30 PM	0	2	0	0	0	0	0	0	0	0	0	0	1	0	0	0	3
4:45 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	6	2	0	2	5	0	0	0	0	0	0	1	0	2	0	18
APPROACH %'s :	0.00%	75.00%	25.00%	0.00%	28.57%	71.43%	0.00%	0.00%					33.33%	0.00%	66.67%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	0	4	1	0	0	0	0	0	0	0	0	0	1	0	1	0	7
PEAK HR FACTOR :	0.00	0.500	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.583
	0.625												0.500				

National Data & Surveying Services Intersection Turning Movement Count

Location: Laurel Canyon Blvd & Runnymede St
City: North Hollywood

Project ID: 18-05143-001
Date: 3/7/2018

Peds_Kids

NS/EW Streets:	Laurel Canyon Blvd		Laurel Canyon Blvd		Runnymede St		Runnymede St		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0
APPROACH %'s :									
PEAK HR :	07:15 AM - 08:15 AM								TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :									

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
3:00 PM	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0
3:45 PM	4	0	0	0	0	0	0	0	4
4:00 PM	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	1	0	0	1
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	4	0	0	0	0	1	0	0	5
APPROACH %'s :	100.00%	0.00%			0.00%	100.00%			
PEAK HR :	04:30 PM - 05:30 PM								TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :									

National Data & Surveying Services Intersection Turning Movement Count

Location: Laurel Canyon Blvd & Runnymede St
City: North Hollywood

Project ID: 18-05143-001
Date: 3/7/2018

Peds_Adults

NS/EW Streets:	Laurel Canyon Blvd		Laurel Canyon Blvd		Runnymede St		Runnymede St		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
7:00 AM	0	0	0	0	0	3	2	1	6
7:15 AM	0	0	0	0	0	4	0	1	5
7:30 AM	0	2	0	0	1	0	0	1	4
7:45 AM	0	0	0	0	0	5	1	1	7
8:00 AM	0	0	0	0	1	0	0	1	2
8:15 AM	1	0	0	1	0	1	0	1	4
8:30 AM	0	0	0	0	0	0	1	0	1
8:45 AM	0	0	0	0	1	0	1	0	2
9:00 AM	0	0	0	0	3	1	0	1	5
9:15 AM	0	1	0	1	1	2	1	0	6
9:30 AM	0	1	0	0	1	3	0	0	5
9:45 AM	0	2	0	0	1	1	1	3	8
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	1	6	0	2	9	20	7	10	55
APPROACH %'s :	14.29%	85.71%	0.00%	100.00%	31.03%	68.97%	41.18%	58.82%	
PEAK HR :	**07:15 AM - 08:15 AM**								TOTAL
PEAK HR VOL :	0	2	0	0	2	9	1	4	18
PEAK HR FACTOR :		0.250			0.500	0.450	0.250	1.000	0.643
	0.250				0.550		0.625		

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
3:00 PM	1	0	0	0	0	0	0	1	2
3:15 PM	0	0	0	0	1	0	1	2	4
3:30 PM	3	0	0	0	1	0	0	0	4
3:45 PM	0	0	0	0	2	0	0	0	2
4:00 PM	0	0	0	0	2	0	1	0	3
4:15 PM	1	0	0	0	0	1	0	1	3
4:30 PM	0	0	0	0	2	1	1	0	4
4:45 PM	0	0	0	0	0	0	1	2	3
5:00 PM	2	0	1	0	4	0	0	1	8
5:15 PM	0	0	0	0	4	0	0	0	4
5:30 PM	2	0	0	0	2	3	2	3	12
5:45 PM	0	0	0	0	3	1	0	1	5
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	9	0	1	0	21	6	6	11	54
APPROACH %'s :	100.00%	0.00%	100.00%	0.00%	77.78%	22.22%	35.29%	64.71%	
PEAK HR :	**04:30 PM - 05:30 PM**								TOTAL
PEAK HR VOL :	2	0	1	0	10	1	2	3	19
PEAK HR FACTOR :	0.250		0.250		0.625	0.250	0.500	0.375	0.594
	0.250		0.250		0.688		0.417		

National Data & Surveying Services Intersection Turning Movement Count

Location: Laurel Canyon Blvd & Runnymede St
City: North Hollywood
Project ID: 18-05143-001
Date: 3/7/2018

Pedestrians (Crosswalks)

NS/EW Streets:	Laurel Canyon Blvd		Laurel Canyon Blvd		Runnymede St		Runnymede St		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
7:00 AM	0	0	0	0	0	3	2	1	6
7:15 AM	0	0	0	0	0	4	0	1	5
7:30 AM	0	2	0	0	1	0	0	1	4
7:45 AM	0	0	0	0	0	5	1	1	7
8:00 AM	0	0	0	0	1	0	0	1	2
8:15 AM	1	0	0	1	0	1	0	1	4
8:30 AM	0	0	0	0	0	0	1	0	1
8:45 AM	0	0	0	0	1	0	1	0	2
9:00 AM	0	0	0	0	3	1	0	1	5
9:15 AM	0	1	0	1	1	2	1	0	6
9:30 AM	0	1	0	0	1	3	0	0	5
9:45 AM	0	2	0	0	1	1	1	3	8
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	1	6	0	2	9	20	7	10	55
APPROACH %'s :	14.29%	85.71%	0.00%	100.00%	31.03%	68.97%	41.18%	58.82%	
PEAK HR :	07:15 AM - 08:15 AM								TOTAL
PEAK HR VOL :	0	2	0	0	2	9	1	4	18
PEAK HR FACTOR :		0.250			0.500	0.450	0.250	1.000	0.643
	0.250				0.550		0.625		

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
3:00 PM	1	0	0	0	0	0	0	1	2
3:15 PM	0	0	0	0	1	0	1	2	4
3:30 PM	3	0	0	0	1	0	0	0	4
3:45 PM	4	0	0	0	2	0	0	0	6
4:00 PM	0	0	0	0	2	0	1	0	3
4:15 PM	1	0	0	0	0	1	0	1	3
4:30 PM	0	0	0	0	2	1	1	0	4
4:45 PM	0	0	0	0	0	0	1	2	3
5:00 PM	2	0	1	0	4	0	0	1	8
5:15 PM	0	0	0	0	4	0	0	0	4
5:30 PM	2	0	0	0	2	3	2	3	12
5:45 PM	0	0	0	0	3	2	0	1	6
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	13	0	1	0	21	7	6	11	59
APPROACH %'s :	100.00%	0.00%	100.00%	0.00%	75.00%	25.00%	35.29%	64.71%	
PEAK HR :	04:30 PM - 05:30 PM								TOTAL
PEAK HR VOL :	2	0	1	0	10	1	2	3	19
PEAK HR FACTOR :	0.250		0.250		0.625	0.250	0.500	0.375	0.594
	0.250		0.250		0.688		0.417		

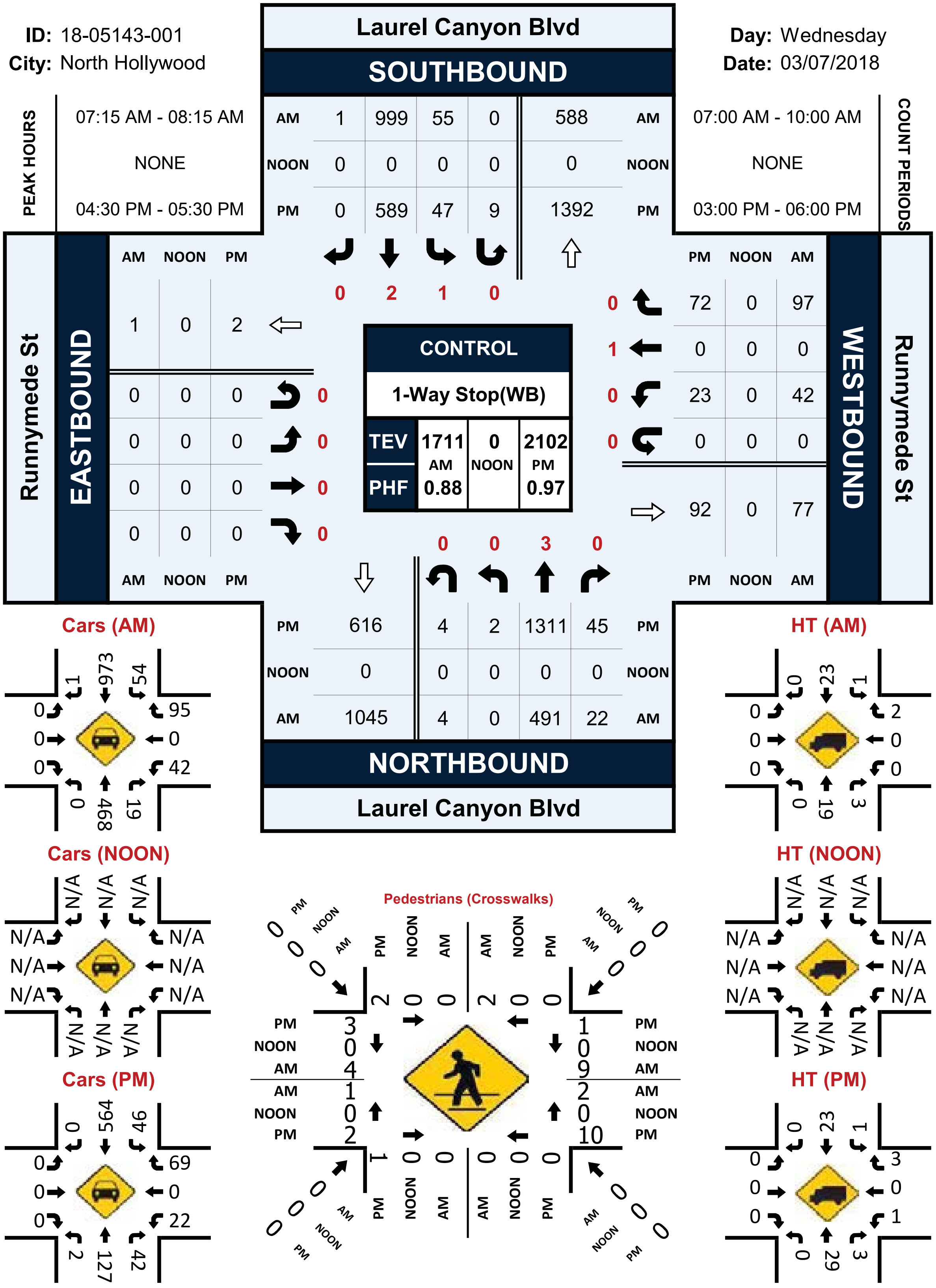
Prepared by National Data & Surveying Services

Laurel Canyon Blvd & Runnymede St

Peak Hour Turning Movement Count

ID: 18-05143-001
City: North Hollywood

Day: Wednesday
Date: 03/07/2018



City Of Los Angeles
Department Of Transportation

MANUAL TRAFFIC COUNT SUMMARY

STREET:
North/South Laurel Canyon Blvd

East/West Runnymede St

Day: Wednesday Date: 03/07/2018 Weather: SUNNY

Hours: Chekrs: NDS

School Day: YES I/S CODE

	N/B	S/B	E/B	W/B
DUAL-WHEELED	171	147	0	16
BIKES	10	16	0	5
BUSES	19	17	0	0

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	150	7.45	290	7.45	0	0.00	47	7.45
PM PK 15 MIN	356	16.30	186	17.00	0	0.00	28	16.00
AM PK HOUR	529	7.30	1055	7.15	0	0.00	159	7.00
PM PK HOUR	1362	16.30	673	17.00	0	0.00	101	15.45

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	3	423	20	446
8-9	1	411	14	426
9-10	1	395	17	413
15-16	3	976	36	1015
16-17	6	1256	43	1305
17-18	1	1289	43	1333
TOTAL	15	4750	173	4938

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	33	965	1	999
8-9	52	805	1	858
9-10	21	565	2	588
15-16	56	605	0	661
16-17	48	536	3	587
17-18	74	599	0	673
TOTAL	284	4075	7	4366

TOTAL	**XING S/L**		**XING N/L**	
N-S	Ped	Sch	Ped	Sch
1445	0	0	2	0
1284	1	0	1	0
1001	1	0	4	0
1676	0	0	4	4
1892	0	0	1	0
2006	1	0	4	0
9304	3	0	16	4

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	0	0	0	0
8-9	0	0	0	0
9-10	0	0	0	0
15-16	0	0	0	0
16-17	0	0	0	0
17-18	0	0	0	0
TOTAL	0	0	0	0

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	58	0	101	159
8-9	19	0	30	49
9-10	28	0	33	61
15-16	30	0	61	91
16-17	34	0	65	99
17-18	20	0	74	94
TOTAL	189	0	364	553

TOTAL	**XING W/L**		**XING E/L**	
E-W	Ped	Sch	Ped	Sch
159	7	0	13	0
49	4	0	3	0
61	6	0	13	0
91	4	0	4	0
99	6	0	6	0
94	7	0	17	1
553	34	0	56	1

National Data & Surveying Services Intersection Turning Movement Count

Location: Radford Ave & Sherman Rd
City: North Hollywood
Control: 1-Way Stop(EB)

Project ID: 18-05143-002
Date: 3/7/2018

Total

NS/EW Streets:	Radford Ave				Radford Ave				Sherman Rd				Sherman Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	5	9	0	0	0	22	2	0	1	0	2	0	0	0	0	0	41
7:15 AM	6	15	0	0	0	23	3	0	0	0	1	0	0	0	0	0	48
7:30 AM	9	15	0	0	0	18	3	0	0	0	1	0	0	0	0	0	46
7:45 AM	13	26	0	0	0	26	4	1	0	0	5	0	0	0	0	0	75
8:00 AM	14	36	0	1	0	22	6	1	2	0	7	0	0	0	0	0	89
8:15 AM	9	24	0	0	0	17	3	0	1	0	10	1	0	0	0	0	65
8:30 AM	9	22	0	0	0	16	7	0	2	0	4	0	0	0	0	0	60
8:45 AM	14	26	0	0	0	26	2	0	1	0	2	1	0	0	0	0	72
9:00 AM	14	16	0	0	0	20	1	0	0	0	4	0	0	0	0	0	55
9:15 AM	10	24	0	0	0	20	1	0	1	0	3	0	0	0	0	0	59
9:30 AM	4	20	0	0	0	15	0	0	1	0	5	0	0	0	0	0	45
9:45 AM	18	22	0	1	0	21	1	0	0	0	7	0	0	0	0	0	70
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	125	255	0	2	0	246	33	2	9	0	51	2	0	0	0	0	725
APPROACH %'s :	32.72%	66.75%	0.00%	0.52%	0.00%	87.54%	11.74%	0.71%	14.52%	0.00%	82.26%	3.23%					
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	45	108	0	1	0	81	20	2	5	0	26	1	0	0	0	0	289
PEAK HR FACTOR :	0.804	0.750	0.000	0.250	0.000	0.779	0.714	0.500	0.625	0.000	0.650	0.250	0.000	0.000	0.000	0.000	0.812
	0.755				0.831				0.667								

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	4	30	0	1	0	21	2	0	3	0	8	0	0	0	0	0	69
3:15 PM	7	21	0	0	0	16	2	0	4	0	7	0	0	0	0	0	57
3:30 PM	8	19	0	0	0	24	5	0	3	0	9	0	0	0	0	0	68
3:45 PM	3	27	0	0	0	40	5	0	3	0	14	0	0	0	0	0	92
4:00 PM	5	23	0	0	0	30	1	0	10	0	11	0	0	0	0	0	80
4:15 PM	5	37	0	1	0	22	1	0	5	0	11	0	0	0	0	0	82
4:30 PM	5	21	0	2	0	22	2	0	7	0	16	0	0	0	0	0	75
4:45 PM	5	27	0	0	0	27	1	0	4	0	14	0	0	0	0	0	78
5:00 PM	2	29	0	1	0	26	1	0	5	0	10	0	0	0	0	0	74
5:15 PM	7	26	0	1	0	16	0	0	1	0	9	0	0	0	0	0	60
5:30 PM	1	25	0	0	0	19	1	0	2	0	5	0	0	0	0	0	53
5:45 PM	1	22	0	2	0	21	0	0	4	0	9	0	0	0	0	0	59
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	53	307	0	8	0	284	21	0	51	0	123	0	0	0	0	0	847
APPROACH %'s :	14.40%	83.42%	0.00%	2.17%	0.00%	93.11%	6.89%	0.00%	29.31%	0.00%	70.69%	0.00%					
PEAK HR :	03:45 PM - 04:45 PM																TOTAL
PEAK HR VOL :	18	108	0	3	0	114	9	0	25	0	52	0	0	0	0	0	329
PEAK HR FACTOR :	0.900	0.730	0.000	0.375	0.000	0.713	0.450	0.000	0.625	0.000	0.813	0.000	0.000	0.000	0.000	0.000	0.894
	0.750				0.683				0.837								

National Data & Surveying Services Intersection Turning Movement Count

Location: Radford Ave & Sherman Rd
City: North Hollywood
Control: 1-Way Stop(EB)

Project ID: 18-05143-002
Date: 3/7/2018

Cars

NS/EW Streets:	Radford Ave				Radford Ave				Sherman Rd				Sherman Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	4	9	0	0	0	21	2	0	1	0	1	0	0	0	0	0	38
7:15 AM	4	14	0	0	0	20	3	0	0	0	1	0	0	0	0	0	42
7:30 AM	8	14	0	0	0	18	2	0	0	0	0	0	0	0	0	0	42
7:45 AM	12	25	0	0	0	23	4	1	0	0	4	0	0	0	0	0	69
8:00 AM	14	35	0	1	0	22	5	1	2	0	5	0	0	0	0	0	85
8:15 AM	9	23	0	0	0	14	3	0	0	0	7	1	0	0	0	0	57
8:30 AM	9	22	0	0	0	13	6	0	1	0	4	0	0	0	0	0	55
8:45 AM	10	24	0	0	0	26	2	0	1	0	1	1	0	0	0	0	65
9:00 AM	12	15	0	0	0	20	1	0	0	0	2	0	0	0	0	0	50
9:15 AM	10	23	0	0	0	18	0	0	1	0	2	0	0	0	0	0	54
9:30 AM	3	19	0	0	0	14	0	0	1	0	4	0	0	0	0	0	41
9:45 AM	17	20	0	1	0	19	1	0	0	0	6	0	0	0	0	0	64
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	112	243	0	2	0	228	29	2	7	0	37	2	0	0	0	0	662
APPROACH %'s :	31.37%	68.07%	0.00%	0.56%	0.00%	88.03%	11.20%	0.77%	15.22%	0.00%	80.43%	4.35%					
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	44	105	0	1	0	72	18	2	3	0	20	1	0	0	0	0	266
PEAK HR FACTOR :	0.79	0.750	0.000	0.250	0.000	0.783	0.750	0.500	0.375	0.000	0.714	0.250	0.000	0.000	0.000	0.000	0.782
		0.750				0.821				0.750							

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	3	26	0	1	0	20	2	0	2	0	6	0	0	0	0	0	60
3:15 PM	6	19	0	0	0	16	0	0	4	0	5	0	0	0	0	0	50
3:30 PM	7	18	0	0	0	23	3	0	2	0	8	0	0	0	0	0	61
3:45 PM	3	25	0	0	0	38	5	0	3	0	14	0	0	0	0	0	88
4:00 PM	5	23	0	0	0	29	1	0	10	0	11	0	0	0	0	0	79
4:15 PM	4	33	0	1	0	19	1	0	5	0	11	0	0	0	0	0	74
4:30 PM	4	20	0	2	0	18	2	0	6	0	16	0	0	0	0	0	68
4:45 PM	4	25	0	0	0	26	1	0	4	0	13	0	0	0	0	0	73
5:00 PM	2	27	0	1	0	25	0	0	4	0	9	0	0	0	0	0	68
5:15 PM	3	23	0	1	0	16	0	0	1	0	9	0	0	0	0	0	53
5:30 PM	1	25	0	0	0	19	0	0	1	0	3	0	0	0	0	0	49
5:45 PM	1	22	0	2	0	21	0	0	2	0	9	0	0	0	0	0	57
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	43	286	0	8	0	270	15	0	44	0	114	0	0	0	0	0	780
APPROACH %'s :	12.76%	84.87%	0.00%	2.37%	0.00%	94.74%	5.26%	0.00%	27.85%	0.00%	72.15%	0.00%					
PEAK HR :	03:45 PM - 04:45 PM																TOTAL
PEAK HR VOL :	16	101	0	3	0	104	9	0	24	0	52	0	0	0	0	0	309
PEAK HR FACTOR :	0.80	0.765	0.000	0.375	0.000	0.684	0.450	0.000	0.600	0.000	0.813	0.000	0.000	0.000	0.000	0.000	0.878
		0.789				0.657				0.864							

National Data & Surveying Services Intersection Turning Movement Count

Location: Radford Ave & Sherman Rd
City: North Hollywood
Control: 1-Way Stop(EB)

Project ID: 18-05143-002
Date: 3/7/2018

HT

NS/EW Streets:	Radford Ave				Radford Ave				Sherman Rd				Sherman Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	1	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	3
7:15 AM	2	1	0	0	0	3	0	0	0	0	0	0	0	0	0	0	6
7:30 AM	1	1	0	0	0	0	1	0	0	0	1	0	0	0	0	0	4
7:45 AM	1	1	0	0	0	3	0	0	0	0	1	0	0	0	0	0	6
8:00 AM	0	1	0	0	0	0	1	0	0	0	2	0	0	0	0	0	4
8:15 AM	0	1	0	0	0	3	0	0	1	0	3	0	0	0	0	0	8
8:30 AM	0	0	0	0	0	3	1	0	1	0	0	0	0	0	0	0	5
8:45 AM	4	2	0	0	0	0	0	0	0	0	1	0	0	0	0	0	7
9:00 AM	2	1	0	0	0	0	0	0	0	0	2	0	0	0	0	0	5
9:15 AM	0	1	0	0	0	2	1	0	0	0	1	0	0	0	0	0	5
9:30 AM	1	1	0	0	0	1	0	0	0	0	1	0	0	0	0	0	4
9:45 AM	1	2	0	0	0	2	0	0	0	0	1	0	0	0	0	0	6
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	13	12	0	0	0	18	4	0	2	0	14	0	0	0	0	0	63
APPROACH %'s :	52.00%	48.00%	0.00%	0.00%	0.00%	81.82%	18.18%	0.00%	12.50%	0.00%	87.50%	0.00%					
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	1	3	0	0	0	9	2	0	2	0	6	0	0	0	0	0	23
PEAK HR FACTOR :	0.250	0.750	0.000	0.000	0.000	0.750	0.500	0.000	0.500	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.719
	0.500				0.688				0.500								

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	1	4	0	0	0	1	0	0	1	0	2	0	0	0	0	0	9
3:15 PM	1	2	0	0	0	0	2	0	0	0	2	0	0	0	0	0	7
3:30 PM	1	1	0	0	0	1	2	0	1	0	1	0	0	0	0	0	7
3:45 PM	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	4
4:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
4:15 PM	1	4	0	0	0	3	0	0	0	0	0	0	0	0	0	0	8
4:30 PM	1	1	0	0	0	4	0	0	1	0	0	0	0	0	0	0	7
4:45 PM	1	2	0	0	0	1	0	0	0	0	1	0	0	0	0	0	5
5:00 PM	0	2	0	0	0	1	1	0	1	0	1	0	0	0	0	0	6
5:15 PM	4	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
5:30 PM	0	0	0	0	0	0	1	0	1	0	2	0	0	0	0	0	4
5:45 PM	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	10	21	0	0	0	14	6	0	7	0	9	0	0	0	0	0	67
APPROACH %'s :	32.26%	67.74%	0.00%	0.00%	0.00%	70.00%	30.00%	0.00%	43.75%	0.00%	56.25%	0.00%					
PEAK HR :	03:45 PM - 04:45 PM																TOTAL
PEAK HR VOL :	2	7	0	0	0	10	0	0	1	0	0	0	0	0	0	0	20
PEAK HR FACTOR :	0.50	0.438	0.000	0.000	0.000	0.625	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.625
	0.450				0.625				0.250								

National Data & Surveying Services Intersection Turning Movement Count

Location: Radford Ave & Sherman Rd
City: North Hollywood
Control: 1-Way Stop(EB)

Project ID: 18-05143-002
Date: 3/7/2018

Buses

NS/EW Streets:	Radford Ave				Radford Ave				Sherman Rd				Sherman Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %'s :																	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %'s :																	
PEAK HR :	03:45 PM - 04:45 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

National Data & Surveying Services Intersection Turning Movement Count

Location: Radford Ave & Sherman Rd
City: North Hollywood
Project ID: 18-05143-002
Date: 3/7/2018

Peds_Kids

NS/EW Streets:	Radford Ave		Radford Ave		Sherman Rd		Sherman Rd		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0
APPROACH %'s :									
PEAK HR :	07:45 AM - 08:45 AM								TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :									

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
3:00 PM	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0
APPROACH %'s :									
PEAK HR :	03:45 PM - 04:45 PM								TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :									

National Data & Surveying Services Intersection Turning Movement Count

Location: Radford Ave & Sherman Rd
City: North Hollywood
Project ID: 18-05143-002
Date: 3/7/2018

Peds_Adults

NS/EW Streets:	Radford Ave		Radford Ave		Sherman Rd		Sherman Rd		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
7:00 AM	1	0	0	0	0	0	1	1	3
7:15 AM	0	0	1	0	1	0	1	0	3
7:30 AM	1	0	0	0	1	2	0	1	5
7:45 AM	0	0	0	0	1	0	0	0	1
8:00 AM	1	0	0	0	0	1	0	0	2
8:15 AM	0	0	0	0	0	0	0	1	1
8:30 AM	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	1	0	1	1	0	0	3
9:00 AM	0	2	0	0	7	0	0	2	11
9:15 AM	0	0	0	0	0	1	0	0	1
9:30 AM	0	0	0	0	1	0	0	0	1
9:45 AM	1	0	0	0	1	1	2	1	6
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	4	2	2	0	13	6	4	6	37
APPROACH %'s :	66.67%	33.33%	100.00%	0.00%	68.42%	31.58%	40.00%	60.00%	
PEAK HR :	**07:45 AM - 08:45 AM**								TOTAL
PEAK HR VOL :	1	0	0	0	1	1	0	1	4
PEAK HR FACTOR :	0.250				0.250	0.250		0.250	0.500
	0.250				0.500		0.250		

	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
PM	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
3:00 PM	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	1	0	1
3:30 PM	1	0	0	0	0	1	0	0	2
3:45 PM	0	0	0	0	0	1	0	0	1
4:00 PM	0	0	0	0	0	0	1	0	1
4:15 PM	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	1	1	0	1	0	3
4:45 PM	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	1	0	1
5:15 PM	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	1	0	0	1	1	2	4	0	9
APPROACH %'s :	100.00%	0.00%	0.00%	100.00%	33.33%	66.67%	100.00%	0.00%	
PEAK HR :	**03:45 PM - 04:45 PM**								TOTAL
PEAK HR VOL :	0	0	0	1	1	1	2	0	5
PEAK HR FACTOR :				0.250	0.250	0.250	0.500		0.417
			0.250		0.500		0.500		

National Data & Surveying Services Intersection Turning Movement Count

Location: Radford Ave & Sherman Rd
City: North Hollywood
Control: 1-Way Stop(EB)

Project ID: 18-05143-002
Date: 3/7/2018

Bikes

NS/EW Streets:	Radford Ave				Radford Ave				Sherman Rd				Sherman Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	2	0	0	1	0	0	0	0	0	0	0	3
7:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
8:00 AM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
8:15 AM	1	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	3
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	1	1	0	0	0	4	0	0	2	0	1	0	0	0	0	0	9
APPROACH %'s :	50.00%	50.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	66.67%	0.00%	33.33%	0.00%					
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	1	1	0	0	0	2	0	0	1	0	1	0	0	0	0	0	6
PEAK HR FACTOR :	0.250	0.250	0.000	0.000	0.000	0.500	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.500
	0.500				0.500				0.500								

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
3:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
5:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	1	2	0	0	0	1	0	0	2	0	1	0	0	0	0	0	7
APPROACH %'s :	33.33%	66.67%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	66.67%	0.00%	33.33%	0.00%					
PEAK HR :	03:45 PM - 04:45 PM																TOTAL
PEAK HR VOL :	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
PEAK HR FACTOR :	0.00	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250
	0.250																

National Data & Surveying Services Intersection Turning Movement Count

Location: Radford Ave & Sherman Rd
City: North Hollywood
Project ID: 18-05143-002
Date: 3/7/2018

Pedestrians (Crosswalks)

NS/EW Streets:	Radford Ave		Radford Ave		Sherman Rd		Sherman Rd		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
7:00 AM	1	0	0	0	0	0	1	1	3
7:15 AM	0	0	1	0	1	0	1	0	3
7:30 AM	1	0	0	0	1	2	0	1	5
7:45 AM	0	0	0	0	1	0	0	0	1
8:00 AM	1	0	0	0	0	1	0	0	2
8:15 AM	0	0	0	0	0	0	0	1	1
8:30 AM	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	1	0	1	1	0	0	3
9:00 AM	0	2	0	0	7	0	0	2	11
9:15 AM	0	0	0	0	0	1	0	0	1
9:30 AM	0	0	0	0	1	0	0	0	1
9:45 AM	1	0	0	0	1	1	2	1	6
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	4	2	2	0	13	6	4	6	37
APPROACH %'s :	66.67%	33.33%	100.00%	0.00%	68.42%	31.58%	40.00%	60.00%	
PEAK HR :	07:45 AM - 08:45 AM								TOTAL
PEAK HR VOL :	1	0	0	0	1	1	0	1	4
PEAK HR FACTOR :	0.250				0.250	0.250		0.250	0.500
	0.250				0.500		0.250		

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
3:00 PM	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	1	0	1
3:30 PM	1	0	0	0	0	1	0	0	2
3:45 PM	0	0	0	0	0	1	0	0	1
4:00 PM	0	0	0	0	0	0	1	0	1
4:15 PM	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	1	1	0	1	0	3
4:45 PM	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	1	0	1
5:15 PM	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	1	0	0	1	1	2	4	0	9
APPROACH %'s :	100.00%	0.00%	0.00%	100.00%	33.33%	66.67%	100.00%	0.00%	
PEAK HR :	03:45 PM - 04:45 PM								TOTAL
PEAK HR VOL :	0	0	0	1	1	1	2	0	5
PEAK HR FACTOR :				0.250	0.250	0.250	0.500		0.417
			0.250		0.500		0.500		

Prepared by National Data & Surveying Services

Radford Ave & Sherman Rd

Peak Hour Turning Movement Count

ID: 18-05143-002
City: North Hollywood

Day: Wednesday
Date: 03/07/2018

PEAK HOURS	
AM	07:45 AM - 08:45 AM
NOON	NONE
PM	03:45 PM - 04:45 PM

COUNT PERIODS	
AM	07:00 AM - 10:00 AM
NOON	NONE
PM	03:00 PM - 06:00 PM

Radford Ave

SOUTHBOUND

AM	20	81	0	2	115
NOON	0	0	0	0	0
PM	9	114	0	0	133
	0	1	0	0	

Sherman Rd

EASTBOUND

AM	NOON	PM	
66	0	27	⇦
1	0	0	0
5	0	25	0
0	0	0	1
26	0	52	0
AM	NOON	PM	

Sherman Rd

WESTBOUND

	PM	NOON	AM
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
⇨	0	0	0
	PM	NOON	AM

CONTROL

1-Way Stop(EB)

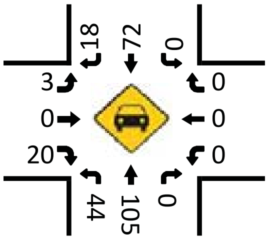
	AM	NOON	PM
TEV	289	0	329
PHF	0.81		0.89

		0	0	1	0
PM	169	3	18	108	0
NOON	0	0	0	0	0
AM	108	1	45	108	0

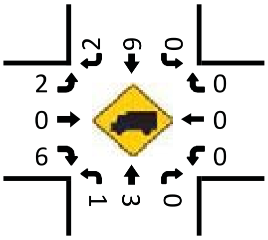
NORTHBOUND

Radford Ave

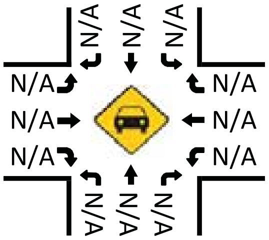
Cars (AM)



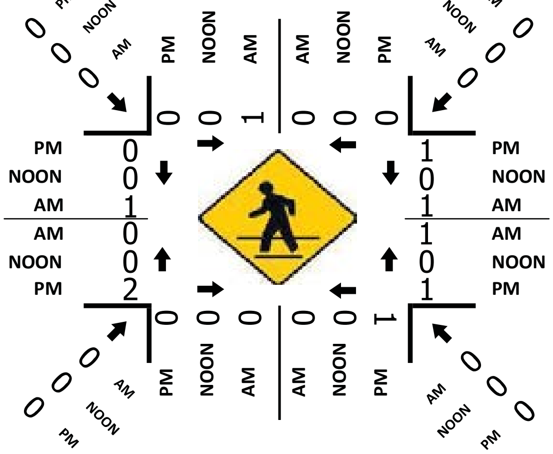
HT (AM)



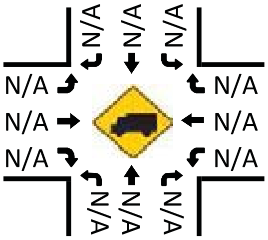
Cars (NOON)



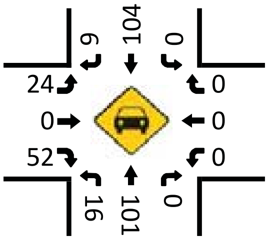
Pedestrians (Crosswalks)



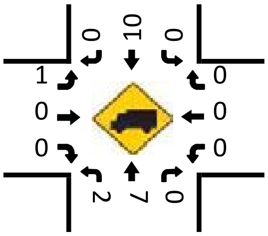
HT (NOON)



Cars (PM)



HT (PM)



City Of Los Angeles

Department Of Transportation

MANUAL TRAFFIC COUNT SUMMARY

STREET:

North/South Radford Ave

East/West Sherman Rd

Day: Wednesday Date: 03/07/2018 Weather: SUNNY

Hours: Chekrs: NDS

School Day: YES I/S CODE

	N/B	S/B	E/B	W/B
DUAL-WHEELED	56	42	32	0
BIKES	5	5	6	0
BUSES	0	0	0	0

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	51	8.00	31	7.45	12	8.15	0	0.00
PM PK 15 MIN	43	16.15	45	15.45	23	16.30	0	0.00
AM PK HOUR	155	8.00	107	7.15	32	7.45	0	0.00
PM PK HOUR	135	16.15	128	15.30	78	16.00	0	0.00

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	33	65	0	98
8-9	47	108	0	155
9-10	47	82	0	129
15-16	23	97	0	120
16-17	23	108	0	131
17-18	15	102	0	117
TOTAL	188	562	0	750

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	1	89	12	102
8-9	1	81	18	100
9-10	0	76	3	79
15-16	0	101	14	115
16-17	0	101	5	106
17-18	0	82	2	84
TOTAL	2	530	54	586

TOTAL	**XING S/L**		**XING N/L**	
N-S	Ped	Sch	Ped	Sch
200	1	0	2	0
255	1	0	1	0
208	0	0	3	0
235	0	0	1	0
237	1	0	0	0
201	0	0	0	0
1336	3	0	7	0

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	1	0	9	10
8-9	8	0	23	31
9-10	2	0	19	21
15-16	13	0	38	51
16-17	26	0	52	78
17-18	12	0	33	45
TOTAL	62	0	174	236

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	0	0	0	0
8-9	0	0	0	0
9-10	0	0	0	0
15-16	0	0	0	0
16-17	0	0	0	0
17-18	0	0	0	0
TOTAL	0	0	0	0

TOTAL	**XING W/L**		**XING E/L**	
E-W	Ped	Sch	Ped	Sch
10	4	0	5	0
31	1	0	3	0
21	5	0	11	0
51	1	0	2	0
78	2	0	1	0
45	1	0	0	0
236	14	0	22	0

National Data & Surveying Services Intersection Turning Movement Count

Location: Hinds Ave & Sherman Way
City: North Hollywood
Control: 1-Way Stop(SB)

Project ID: 18-05143-003
Date: 3/7/2018

Total

NS/EW Streets:	Hinds Ave				Hinds Ave				Sherman Way				Sherman Way				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	1	2	0	0	0	3	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	3	0	2	0	2	204	2	0	0	170	4	0	387
7:15 AM	0	0	0	0	6	0	7	0	3	262	0	0	0	171	5	0	454
7:30 AM	2	0	0	0	2	0	8	0	5	256	0	1	0	224	3	1	502
7:45 AM	9	0	0	0	4	0	5	0	2	323	0	1	0	209	3	0	556
8:00 AM	1	0	0	0	0	0	5	0	8	309	0	0	0	187	6	0	516
8:15 AM	0	0	1	0	1	0	3	0	3	280	0	0	1	205	8	1	503
8:30 AM	1	0	0	0	3	0	5	0	4	254	0	0	1	188	4	1	461
8:45 AM	1	0	0	0	4	0	6	0	4	296	0	0	0	180	3	0	494
9:00 AM	0	0	0	0	4	0	2	0	7	232	1	0	0	174	5	0	425
9:15 AM	0	0	1	0	5	0	3	0	3	244	0	0	0	193	2	1	452
9:30 AM	0	0	0	0	4	0	0	0	4	227	0	1	0	173	4	0	413
9:45 AM	0	0	0	0	2	0	3	0	2	246	0	0	0	217	8	2	480
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	14	0	2	0	38	0	49	0	47	3133	3	3	2	2291	55	6	5643
APPROACH %'s :	87.50%	0.00%	12.50%	0.00%	43.68%	0.00%	56.32%	0.00%	1.48%	98.34%	0.09%	0.09%	0.08%	97.32%	2.34%	0.25%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	12	0	1	0	7	0	21	0	18	1168	0	2	1	825	20	2	2077
PEAK HR FACTOR :	0.333	0.000	0.250	0.000	0.438	0.000	0.656	0.000	0.563	0.904	0.000	0.500	0.250	0.921	0.625	0.500	0.934
	0.361				0.700				0.911				0.930				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	1	2	0	0	0	3	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	0	0	0	0	7	0	6	0	5	252	0	0	0	211	4	1	486
3:15 PM	0	0	0	0	4	0	3	0	3	272	0	0	0	246	11	0	539
3:30 PM	0	0	1	0	3	0	4	0	9	294	0	0	0	312	9	1	633
3:45 PM	0	0	0	0	4	0	5	0	8	253	1	0	0	261	7	0	539
4:00 PM	0	0	0	0	4	0	14	0	9	272	0	0	0	224	9	0	532
4:15 PM	0	0	1	0	7	0	8	0	6	258	0	0	0	237	6	0	523
4:30 PM	1	0	1	0	4	0	6	0	7	273	1	0	1	271	6	0	571
4:45 PM	0	0	0	0	2	0	6	0	6	262	5	2	0	243	3	0	529
5:00 PM	3	0	2	0	9	0	16	0	2	300	0	0	0	279	4	0	615
5:15 PM	1	0	2	0	4	0	7	0	5	261	1	1	0	240	3	0	525
5:30 PM	0	0	0	0	1	0	4	0	4	287	2	0	0	229	5	0	532
5:45 PM	2	0	2	0	1	0	5	0	1	285	1	0	0	217	5	0	519
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	7	0	9	0	50	0	84	0	65	3269	11	3	1	2970	72	2	6543
APPROACH %'s :	43.75%	0.00%	56.25%	0.00%	37.31%	0.00%	62.69%	0.00%	1.94%	97.64%	0.33%	0.09%	0.03%	97.54%	2.36%	0.07%	
PEAK HR :	03:15 PM - 04:15 PM																TOTAL
PEAK HR VOL :	0	0	1	0	15	0	26	0	29	1091	1	0	0	1043	36	1	2243
PEAK HR FACTOR :	0.000	0.000	0.250	0.000	0.938	0.000	0.464	0.000	0.806	0.928	0.250	0.000	0.000	0.836	0.818	0.250	0.886
	0.250				0.569				0.925				0.839				

National Data & Surveying Services Intersection Turning Movement Count

Location: Hinds Ave & Sherman Way
City: North Hollywood
Control: 1-Way Stop(SB)

Project ID: 18-05143-003
Date: 3/7/2018

Cars

NS/EW Streets:	Hinds Ave				Hinds Ave				Sherman Way				Sherman Way				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	1	2	0	0	0	3	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	3	0	2	0	1	193	2	0	0	161	4	0	366
7:15 AM	0	0	0	0	6	0	6	0	3	254	0	0	0	160	5	0	434
7:30 AM	1	0	0	0	2	0	7	0	5	245	0	1	0	211	3	1	476
7:45 AM	5	0	0	0	4	0	5	0	2	310	0	1	0	200	2	0	529
8:00 AM	0	0	0	0	0	0	5	0	8	295	0	0	0	174	5	0	487
8:15 AM	0	0	1	0	0	0	3	0	3	261	0	0	1	195	7	1	472
8:30 AM	1	0	0	0	3	0	5	0	4	239	0	0	1	172	3	1	429
8:45 AM	1	0	0	0	4	0	6	0	4	268	0	0	0	162	3	0	448
9:00 AM	0	0	0	0	4	0	2	0	6	213	1	0	0	154	5	0	385
9:15 AM	0	0	1	0	4	0	3	0	3	220	0	0	0	180	2	1	414
9:30 AM	0	0	0	0	3	0	0	0	3	212	0	1	0	158	4	0	381
9:45 AM	0	0	0	0	2	0	2	0	2	225	0	0	0	204	8	1	444
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	8	0	2	0	35	0	46	0	44	2935	3	3	2	2131	51	5	5265
APPROACH %'s :	80.00%	0.00%	20.00%	0.00%	43.21%	0.00%	56.79%	0.00%	1.47%	98.32%	0.10%	0.10%	0.09%	97.35%	2.33%	0.23%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	6	0	1	0	6	0	20	0	18	1111	0	2	1	780	17	2	1964
PEAK HR FACTOR :	0.30	0.000	0.250	0.000	0.375	0.000	0.714	0.000	0.563	0.896	0.000	0.500	0.250	0.924	0.607	0.500	0.928
		0.350				0.722				0.903				0.930			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	1	2	0	0	0	3	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	0	0	0	0	7	0	6	0	4	236	0	0	0	205	4	1	463
3:15 PM	0	0	0	0	4	0	3	0	3	258	0	0	0	240	11	0	519
3:30 PM	0	0	0	0	3	0	4	0	9	280	0	0	0	308	8	1	613
3:45 PM	0	0	0	0	4	0	5	0	8	240	1	0	0	252	7	0	517
4:00 PM	0	0	0	0	4	0	14	0	8	253	0	0	0	219	8	0	506
4:15 PM	0	0	1	0	7	0	6	0	6	246	0	0	0	230	6	0	502
4:30 PM	1	0	1	0	4	0	6	0	6	251	1	0	1	260	6	0	537
4:45 PM	0	0	0	0	2	0	6	0	6	239	1	2	0	237	3	0	496
5:00 PM	3	0	2	0	9	0	16	0	2	279	0	0	0	275	4	0	590
5:15 PM	1	0	2	0	4	0	7	0	5	249	1	1	0	232	3	0	505
5:30 PM	0	0	0	0	1	0	4	0	4	277	1	0	0	225	5	0	517
5:45 PM	2	0	2	0	1	0	4	0	1	277	0	0	0	216	5	0	508
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	7	0	8	0	50	0	81	0	62	3085	5	3	1	2899	70	2	6273
APPROACH %'s :	46.67%	0.00%	53.33%	0.00%	38.17%	0.00%	61.83%	0.00%	1.97%	97.78%	0.16%	0.10%	0.03%	97.54%	2.36%	0.07%	
PEAK HR :	03:15 PM - 04:15 PM																TOTAL
PEAK HR VOL :	0	0	0	0	15	0	26	0	28	1031	1	0	0	1019	34	1	2155
PEAK HR FACTOR :	0.00	0.000	0.000	0.000	0.938	0.000	0.464	0.000	0.778	0.921	0.250	0.000	0.000	0.827	0.773	0.250	0.879
						0.569				0.917				0.831			

National Data & Surveying Services Intersection Turning Movement Count

Location: Hinds Ave & Sherman Way
City: North Hollywood
Control: 1-Way Stop(SB)

Project ID: 18-05143-003
Date: 3/7/2018

HT

NS/EW Streets:	Hinds Ave				Hinds Ave				Sherman Way				Sherman Way				
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	0	1	0	0	0	1	0	0	1	2	0	0	0	3	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	1	9	0	0	0	7	0	0	17
7:15 AM	0	0	0	0	0	0	1	0	0	6	0	0	0	10	0	0	17
7:30 AM	1	0	0	0	0	0	1	0	0	10	0	0	0	11	0	0	23
7:45 AM	4	0	0	0	0	0	0	0	0	12	0	0	0	8	1	0	25
8:00 AM	1	0	0	0	0	0	0	0	0	12	0	0	0	12	1	0	26
8:15 AM	0	0	0	0	1	0	0	0	0	17	0	0	0	9	1	0	28
8:30 AM	0	0	0	0	0	0	0	0	0	14	0	0	0	14	1	0	29
8:45 AM	0	0	0	0	0	0	0	0	0	27	0	0	0	17	0	0	44
9:00 AM	0	0	0	0	0	0	0	0	1	18	0	0	0	19	0	0	38
9:15 AM	0	0	0	0	1	0	0	0	0	22	0	0	0	12	0	0	35
9:30 AM	0	0	0	0	1	0	0	0	1	15	0	0	0	15	0	0	32
9:45 AM	0	0	0	0	0	0	1	0	0	20	0	0	0	12	0	1	34
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	6	0	0	0	3	0	3	0	3	182	0	0	0	146	4	1	348
APPROACH %'s :	100.00%	0.00%	0.00%	0.00%	50.00%	0.00%	50.00%	0.00%	1.62%	98.38%	0.00%	0.00%	0.00%	96.69%	2.65%	0.66%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	6	0	0	0	1	0	1	0	0	51	0	0	0	40	3	0	102
PEAK HR FACTOR :	0.375	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.750	0.000	0.000	0.000	0.833	0.750	0.000	0.911
		0.375				0.500				0.750				0.827			

	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
PM	0	1	0	0	0	1	0	0	1	2	0	0	0	3	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	0	0	0	0	0	0	0	0	1	15	0	0	0	5	0	0	21
3:15 PM	0	0	0	0	0	0	0	0	0	13	0	0	0	4	0	0	17
3:30 PM	0	0	1	0	0	0	0	0	0	12	0	0	0	3	1	0	17
3:45 PM	0	0	0	0	0	0	0	0	0	13	0	0	0	7	0	0	20
4:00 PM	0	0	0	0	0	0	0	0	1	17	0	0	0	4	1	0	23
4:15 PM	0	0	0	0	0	0	2	0	0	10	0	0	0	5	0	0	17
4:30 PM	0	0	0	0	0	0	0	0	1	20	0	0	0	10	0	0	31
4:45 PM	0	0	0	0	0	0	0	0	0	22	4	0	0	5	0	0	31
5:00 PM	0	0	0	0	0	0	0	0	0	20	0	0	0	2	0	0	22
5:15 PM	0	0	0	0	0	0	0	0	0	10	0	0	0	7	0	0	17
5:30 PM	0	0	0	0	0	0	0	0	0	9	1	0	0	3	0	0	13
5:45 PM	0	0	0	0	0	0	1	0	0	7	1	0	0	0	0	0	9
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	1	0	0	0	3	0	3	168	6	0	0	55	2	0	238
APPROACH %'s :	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	1.69%	94.92%	3.39%	0.00%	0.00%	96.49%	3.51%	0.00%	
PEAK HR :	03:15 PM - 04:15 PM																TOTAL
PEAK HR VOL :	0	0	1	0	0	0	0	0	1	55	0	0	0	18	2	0	77
PEAK HR FACTOR :	0.00	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.250	0.809	0.000	0.000	0.000	0.643	0.500	0.000	0.837
		0.250								0.778				0.714			

National Data & Surveying Services Intersection Turning Movement Count

Location: Hinds Ave & Sherman Way
City: North Hollywood
Control: 1-Way Stop(SB)

Project ID: 18-05143-003
Date: 3/7/2018

Buses

NS/EW Streets:	Hinds Ave				Hinds Ave				Sherman Way				Sherman Way				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	1	2	0	0	0	3	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	4
7:15 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	0	3
7:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	0	3
7:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2
8:00 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	0	3
8:15 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	0	3
8:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	0	3
8:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2
9:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2
9:15 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	0	3
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	16	0	0	0	14	0	0	30
APPROACH %'s :									0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	6	0	0	0	5	0	0	11
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.750	0.000	0.000	0.000	0.625	0.000	0.000	0.917
									0.750				0.625				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	1	2	0	0	0	3	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2
3:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	0	3
3:30 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	0	3
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
4:00 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	0	3
4:15 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	4
4:30 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	0	3
4:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2
5:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	0	3
5:15 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	0	3
5:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2
5:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	16	0	0	0	16	0	0	32
APPROACH %'s :									0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	
PEAK HR :	03:15 PM - 04:15 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	5	0	0	0	6	0	0	11
PEAK HR FACTOR :	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.625	0.000	0.000	0.000	0.750	0.000	0.000	0.917
									0.625				0.750				

National Data & Surveying Services Intersection Turning Movement Count

Location: Hinds Ave & Sherman Way
City: North Hollywood
Project ID: 18-05143-003
Date: 3/7/2018

Peds_Kids

NS/EW Streets:	Hinds Ave		Hinds Ave		Sherman Way		Sherman Way		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
7:00 AM	1	0	0	0	0	0	0	0	1
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0
9:30 AM	0	1	0	0	0	0	0	0	1
9:45 AM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	1	1	0	0	0	0	0	0	2
APPROACH %'s :	50.00%	50.00%							
PEAK HR :	07:30 AM - 08:30 AM								TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :									

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
3:00 PM	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	1	0	0	0	0	1
4:00 PM	0	0	1	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0
4:30 PM	0	1	0	0	0	0	0	0	1
4:45 PM	0	0	1	0	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	1	2	1	0	0	0	0	4
APPROACH %'s :	0.00%	100.00%	66.67%	33.33%					
PEAK HR :	03:15 PM - 04:15 PM								TOTAL
PEAK HR VOL :	0	0	1	1	0	0	0	0	2
PEAK HR FACTOR :			0.250	0.250					0.500
			0.500						

National Data & Surveying Services Intersection Turning Movement Count

Location: Hinds Ave & Sherman Way
City: North Hollywood
Project ID: 18-05143-003
Date: 3/7/2018

Peds_Adults

NS/EW Streets:	Hinds Ave		Hinds Ave		Sherman Way		Sherman Way		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0
7:15 AM	1	4	0	1	0	1	0	0	7
7:30 AM	1	0	0	0	0	0	0	0	1
7:45 AM	2	1	1	1	0	0	0	0	5
8:00 AM	9	1	0	0	1	0	0	0	11
8:15 AM	2	1	0	0	0	0	0	0	3
8:30 AM	1	1	0	0	0	0	0	0	2
8:45 AM	8	1	0	1	0	0	0	0	10
9:00 AM	1	0	0	0	0	0	0	0	1
9:15 AM	0	2	0	0	0	0	0	0	2
9:30 AM	0	0	0	0	0	0	0	0	0
9:45 AM	2	4	0	2	0	0	0	0	8
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	27	15	1	5	1	1	0	0	50
APPROACH %'s :	64.29%	35.71%	16.67%	83.33%	50.00%	50.00%			
PEAK HR :	07:30 AM - 08:30 AM								TOTAL
PEAK HR VOL :	14	3	1	1	1	0	0	0	20
PEAK HR FACTOR :	0.389	0.750	0.250	0.250	0.250				0.455
	0.425		0.250		0.250				

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
3:00 PM	0	1	1	0	0	0	0	0	2
3:15 PM	0	1	1	0	0	0	0	0	2
3:30 PM	1	0	0	1	0	0	0	0	2
3:45 PM	1	0	0	0	0	0	0	0	1
4:00 PM	0	3	0	0	0	0	0	0	3
4:15 PM	0	2	1	0	0	0	0	0	3
4:30 PM	0	2	0	0	0	0	0	0	2
4:45 PM	0	1	0	1	0	1	0	0	3
5:00 PM	0	5	4	0	0	0	0	1	10
5:15 PM	1	0	0	0	0	0	0	0	1
5:30 PM	0	1	0	0	1	0	0	0	2
5:45 PM	0	0	0	1	0	0	0	0	1
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	3	16	7	3	1	1	0	1	32
APPROACH %'s :	15.79%	84.21%	70.00%	30.00%	50.00%	50.00%	0.00%	100.00%	
PEAK HR :	03:15 PM - 04:15 PM								TOTAL
PEAK HR VOL :	2	4	1	1	0	0	0	0	8
PEAK HR FACTOR :	0.500	0.333	0.250	0.250					0.667
	0.500		0.500						

National Data & Surveying Services Intersection Turning Movement Count

Location: Hinds Ave & Sherman Way
City: North Hollywood
Control: 1-Way Stop(SB)

Project ID: 18-05143-003
Date: 3/7/2018

Bikes

NS/EW Streets:	Hinds Ave				Hinds Ave				Sherman Way				Sherman Way				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	1	2	0	0	0	3	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
7:30 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
7:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	3
8:00 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
9:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	7	0	0	0	6	2	0	15
APPROACH %'s :									0.00%	100.00%	0.00%	0.00%	0.00%	75.00%	25.00%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	5	0	0	0	1	1	0	7
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.625	0.000	0.000	0.000	0.250	0.250	0.000	0.583
										0.625				0.250			

	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
PM	0	1	0	0	0	1	0	0	1	2	0	0	0	3	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
4:00 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
4:45 PM	0	0	0	0	1	0	0	0	0	2	0	0	0	1	0	0	4
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
5:30 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
5:45 PM	0	0	0	0	1	0	0	0	0	1	0	0	0	2	0	0	4
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	3	0	0	0	0	7	0	0	0	8	1	0	19
APPROACH %'s :					100.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	88.89%	11.11%	0.00%	
PEAK HR :	03:15 PM - 04:15 PM																TOTAL
PEAK HR VOL :	0	0	0	0	1	0	0	0	0	0	0	0	0	4	0	0	5
PEAK HR FACTOR :	0.00	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.333	0.000	0.000	0.417
						0.250								0.333			

National Data & Surveying Services Intersection Turning Movement Count

Location: Hinds Ave & Sherman Way
City: North Hollywood
Project ID: 18-05143-003
Date: 3/7/2018

Pedestrians (Crosswalks)

NS/EW Streets:	Hinds Ave		Hinds Ave		Sherman Way		Sherman Way		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
7:00 AM	1	0	0	0	0	0	0	0	1
7:15 AM	1	4	0	1	0	1	0	0	7
7:30 AM	1	0	0	0	0	0	0	0	1
7:45 AM	2	1	1	1	0	0	0	0	5
8:00 AM	9	1	0	0	1	0	0	0	11
8:15 AM	2	1	0	0	0	0	0	0	3
8:30 AM	1	1	0	0	0	0	0	0	2
8:45 AM	8	1	0	1	0	0	0	0	10
9:00 AM	1	0	0	0	0	0	0	0	1
9:15 AM	0	2	0	0	0	0	0	0	2
9:30 AM	0	1	0	0	0	0	0	0	1
9:45 AM	2	4	0	2	0	0	0	0	8
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	28	16	1	5	1	1	0	0	52
APPROACH %'s :	63.64%	36.36%	16.67%	83.33%	50.00%	50.00%			
PEAK HR :	07:30 AM - 08:30 AM								TOTAL
PEAK HR VOL :	14	3	1	1	1	0	0	0	20
PEAK HR FACTOR :	0.389	0.750	0.250	0.250	0.250				0.455
	0.425		0.250		0.250				

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
3:00 PM	0	1	1	0	0	0	0	0	2
3:15 PM	0	1	1	0	0	0	0	0	2
3:30 PM	1	0	0	1	0	0	0	0	2
3:45 PM	1	0	0	1	0	0	0	0	2
4:00 PM	0	3	1	0	0	0	0	0	4
4:15 PM	0	2	1	0	0	0	0	0	3
4:30 PM	0	3	0	0	0	0	0	0	3
4:45 PM	0	1	1	1	0	1	0	0	4
5:00 PM	0	5	4	0	0	0	0	1	10
5:15 PM	1	0	0	0	0	0	0	0	1
5:30 PM	0	1	0	0	1	0	0	0	2
5:45 PM	0	0	0	1	0	0	0	0	1
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	3	17	9	4	1	1	0	1	36
APPROACH %'s :	15.00%	85.00%	69.23%	30.77%	50.00%	50.00%	0.00%	100.00%	
PEAK HR :	03:15 PM - 04:15 PM								TOTAL
PEAK HR VOL :	2	4	2	2	0	0	0	0	10
PEAK HR FACTOR :	0.500	0.333	0.500	0.500					0.625
	0.500		1.000						

Prepared by National Data & Surveying Services

Hinds Ave & Sherman Way

Peak Hour Turning Movement Count

ID: 18-05143-003
City: North Hollywood

Day: Wednesday
Date: 03/07/2018

PEAK HOURS			COUNT PERIODS
AM	07:30 AM - 08:30 AM	AM	07:00 AM - 10:00 AM
NOON	NONE	NOON	NONE
PM	03:15 PM - 04:15 PM	PM	03:00 PM - 06:00 PM

Hinds Ave SOUTHBOUND

	↲	↓	↳	U	⇧
AM	21	0	7	0	38
NOON	0	0	0	0	0
PM	26	0	15	0	65
	0	1	0	0	

Sherman Way EASTBOUND

		AM	NOON	PM
⇦		860	0	1069
U	0	2	0	0
↱	1	18	0	29
→	2	1168	0	1091
↴	0	0	0	1

Sherman Way WESTBOUND

		PM	NOON	AM
↰	0	36	0	20
←	3	1043	0	825
↙	0	0	0	1
U	0	1	0	2
⇨		1108	0	1178

CONTROL

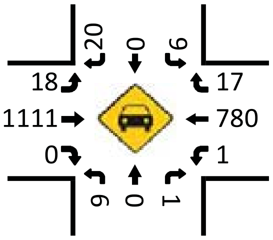
1-Way Stop(SB)

	AM	NOON	PM
TEV	2077	0	2243
PHF	0.93		0.89

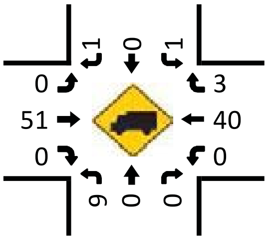
NORTHBOUND Hinds Ave

	⇩	U	↰	↑	↱
		0	0	1	0
PM	1	0	0	0	1
NOON	0	0	0	0	0
AM	1	0	12	0	1

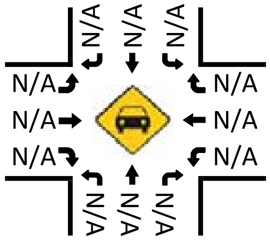
Cars (AM)



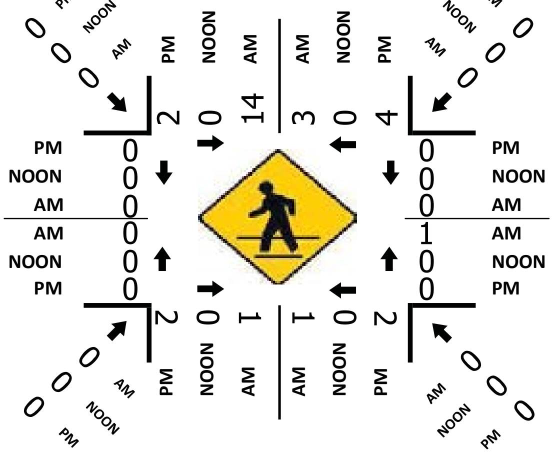
HT (AM)



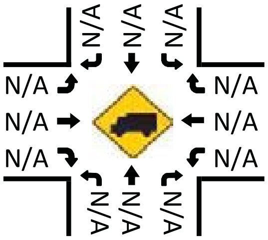
Cars (NOON)



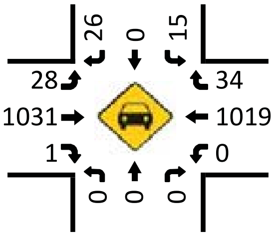
Pedestrians (Crosswalks)



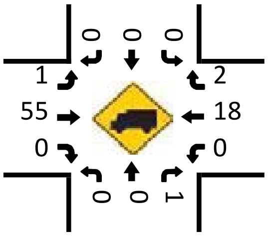
HT (NOON)



Cars (PM)



HT (PM)



City Of Los Angeles
Department Of Transportation

MANUAL TRAFFIC COUNT SUMMARY

STREET:
North/South Hinds Ave

East/West Sherman Way

Day: Wednesday Date: 03/07/2018 Weather: SUNNY

Hours: Chekrs: NDS

School Day: YES I/S CODE

	N/B	S/B	E/B	W/B
DUAL-WHEELED	7	9	362	208
BIKES	0	3	14	17
BUSES	0	0	32	30

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	9	7.45	13	7.15	326	7.45	228	7.30
PM PK 15 MIN	5	17.00	25	17.00	303	15.30	322	15.30
AM PK HOUR	13	7.30	37	7.00	1188	7.30	848	7.30
PM PK HOUR	12	17.00	58	16.15	1150	17.00	1080	15.15

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	11	0	0	11
8-9	3	0	1	4
9-10	0	0	1	1
15-16	0	0	1	1
16-17	1	0	2	3
17-18	6	0	6	12
TOTAL	21	0	11	32

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	15	0	22	37
8-9	8	0	19	27
9-10	15	0	8	23
15-16	18	0	18	36
16-17	17	0	34	51
17-18	15	0	32	47
TOTAL	88	0	133	221

TOTAL	**XING S/L**		**XING N/L**	
N-S	Ped	Sch	Ped	Sch
48	3	0	9	1
31	1	0	24	0
24	2	0	9	1
37	3	1	4	0
54	2	2	8	1
59	5	0	7	0
253	16	3	61	3

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	14	1045	2	1061
8-9	19	1139	0	1158
9-10	17	949	1	967
15-16	25	1071	1	1097
16-17	30	1065	6	1101
17-18	13	1133	4	1150
TOTAL	118	6402	14	6534

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	1	774	15	790
8-9	4	760	21	785
9-10	3	757	19	779
15-16	2	1030	31	1063
16-17	1	975	24	1000
17-18	0	965	17	982
TOTAL	11	5261	127	5399

TOTAL	**XING W/L**		**XING E/L**	
E-W	Ped	Sch	Ped	Sch
1851	0	0	1	0
1943	0	0	1	0
1746	0	0	0	0
2160	0	0	0	0
2101	0	0	1	0
2132	1	0	1	0
11933	1	0	4	0

National Data & Surveying Services Intersection Turning Movement Count

Location: Morella Ave & Hart St
City: North Hollywood
Control: 1-Way Stop(NB)

Project ID: 18-05143-004
Date: 3/7/2018

Total

NS/EW Streets:	Morella Ave				Morella Ave				Hart St				Hart St				
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	0	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	7	0	0	0	0	0	0	20	0	0	2	16	0	1	46
7:15 AM	5	0	7	0	0	0	0	0	0	22	2	0	4	23	0	0	63
7:30 AM	2	0	6	0	0	0	0	0	0	36	1	0	4	17	0	2	68
7:45 AM	3	0	8	0	0	0	0	0	0	34	2	0	2	17	0	0	66
8:00 AM	1	0	2	0	0	0	0	0	0	28	1	0	2	20	0	2	56
8:15 AM	4	0	0	0	0	0	0	0	0	23	2	0	2	10	0	0	41
8:30 AM	1	0	2	0	0	0	0	0	0	23	0	0	0	14	0	0	40
8:45 AM	1	0	4	0	0	0	0	0	0	20	0	1	2	13	0	0	41
9:00 AM	1	0	2	0	0	0	0	0	0	14	2	0	0	7	0	0	26
9:15 AM	1	0	0	0	0	0	0	0	0	18	0	0	0	8	0	1	28
9:30 AM	1	0	2	0	0	0	0	0	0	13	3	0	2	14	0	0	35
9:45 AM	1	0	2	0	0	0	0	0	0	9	3	0	2	10	0	0	27
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	21	0	42	0	0	0	0	0	0	260	16	1	22	169	0	6	537
APPROACH %'s :	33.33%	0.00%	66.67%	0.00%					0.00%	93.86%	5.78%	0.36%	11.17%	85.79%	0.00%	3.05%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	11	0	23	0	0	0	0	0	0	120	6	0	12	77	0	4	253
PEAK HR FACTOR :	0.550	0.000	0.719	0.000	0.000	0.000	0.000	0.000	0.000	0.833	0.750	0.000	0.750	0.837	0.000	0.500	0.930
		0.708								0.851				0.861			

	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
PM	0	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	0	0	4	0	0	0	0	0	0	26	1	0	3	17	0	0	51
3:15 PM	4	0	0	0	0	0	0	0	0	23	6	1	0	16	0	0	50
3:30 PM	4	0	2	0	0	0	0	0	0	26	6	0	1	19	0	1	59
3:45 PM	1	0	2	0	0	0	0	0	0	30	2	0	3	17	0	0	55
4:00 PM	1	0	2	0	0	0	0	0	0	42	0	0	3	20	0	0	68
4:15 PM	0	0	2	0	0	0	0	0	0	23	2	0	3	23	0	1	54
4:30 PM	3	0	3	0	0	0	0	0	0	28	3	0	4	22	0	2	65
4:45 PM	0	0	6	0	0	0	0	0	0	38	8	0	1	22	0	1	76
5:00 PM	1	0	2	0	0	0	0	0	0	37	3	0	7	36	0	0	86
5:15 PM	3	0	2	0	0	0	0	0	0	37	3	0	6	25	0	1	77
5:30 PM	1	0	8	0	0	0	0	0	0	35	4	0	4	31	0	1	84
5:45 PM	2	0	8	1	0	0	0	0	0	26	5	1	3	31	0	0	77
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	20	0	41	1	0	0	0	0	0	371	43	2	38	279	0	7	802
APPROACH %'s :	32.26%	0.00%	66.13%	1.61%					0.00%	89.18%	10.34%	0.48%	11.73%	86.11%	0.00%	2.16%	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	7	0	20	1	0	0	0	0	0	135	15	1	20	123	0	2	324
PEAK HR FACTOR :	0.583	0.000	0.625	0.250	0.000	0.000	0.000	0.000	0.000	0.912	0.750	0.250	0.714	0.854	0.000	0.500	0.942
		0.636								0.944				0.843			

National Data & Surveying Services Intersection Turning Movement Count

Location: Morella Ave & Hart St
City: North Hollywood
Control: 1-Way Stop(NB)

Project ID: 18-05143-004
Date: 3/7/2018

Bikes

NS/EW Streets:	Morella Ave				Morella Ave				Hart St				Hart St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
APPROACH %'s :	100.00%	0.00%	0.00%	0.00%													
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
PEAK HR FACTOR :	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250
	0.250																

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2
5:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	5	1	0	0	3	0	0	9
APPROACH %'s :									0.00%	83.33%	16.67%	0.00%	0.00%	100.00%	0.00%	0.00%	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	1	1	0	0	3	0	0	5
PEAK HR FACTOR :	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.000	0.000	0.375	0.000	0.000	0.625
									0.500				0.375				

National Data & Surveying Services Intersection Turning Movement Count

Location: Morella Ave & Hart St
City: North Hollywood
Project ID: 18-05143-004
Date: 3/7/2018

Pedestrians (Crosswalks)

NS/EW Streets:	Morella Ave		Morella Ave		Hart St		Hart St		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
7:00 AM	0	0	0	1	0	0	0	0	1
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	1	0	1	0	0	0	2
8:00 AM	0	0	0	0	0	0	0	1	1
8:15 AM	0	0	0	0	0	1	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	1	0	0	0	0	1
9:00 AM	0	0	1	0	1	0	0	1	3
9:15 AM	0	0	1	0	3	0	0	1	5
9:30 AM	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	1	0	0	0	0	1
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	0	3	3	5	1	0	3	15
APPROACH %'s :			50.00%	50.00%	83.33%	16.67%	0.00%	100.00%	
PEAK HR :	07:15 AM - 08:15 AM								TOTAL
PEAK HR VOL :	0	0	1	0	1	0	0	1	3
PEAK HR FACTOR :			0.250		0.250			0.250	0.375
			0.250		0.250		0.250		

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
3:00 PM	0	0	0	1	1	0	0	0	2
3:15 PM	0	0	1	1	0	0	2	1	5
3:30 PM	0	0	0	2	0	0	0	0	2
3:45 PM	0	0	2	0	1	1	0	0	4
4:00 PM	0	0	1	3	0	3	3	1	11
4:15 PM	0	0	0	2	0	0	0	0	2
4:30 PM	0	0	2	0	0	0	1	1	4
4:45 PM	0	0	0	1	1	1	0	0	3
5:00 PM	0	0	0	1	0	0	1	0	2
5:15 PM	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	1	0	0	1	2	4
5:45 PM	0	0	0	0	0	0	5	5	10
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	0	6	12	3	5	13	10	49
APPROACH %'s :			33.33%	66.67%	37.50%	62.50%	56.52%	43.48%	
PEAK HR :	05:00 PM - 06:00 PM								TOTAL
PEAK HR VOL :	0	0	0	2	0	0	7	7	16
PEAK HR FACTOR :				0.500			0.350	0.350	0.400
			0.500				0.350		

Prepared by National Data & Surveying Services

Morella Ave & Hart St

Peak Hour Turning Movement Count

ID: 18-05143-004
City: North Hollywood

Day: Wednesday
Date: 03/07/2018

	PEAK HOURS	COUNT PERIODS
AM	07:15 AM - 08:15 AM	07:00 AM - 10:00 AM
NOON	NONE	NONE
PM	05:00 PM - 06:00 PM	03:00 PM - 06:00 PM

Morella Ave
SOUTHBOUND

	↲	↓	↳	U	⇧
AM	0	0	0	0	0
NOON	0	0	0	0	0
PM	0	0	0	0	0
	0	0	0	0	

Hart St
EASTBOUND

	AM	NOON	PM	
⇦	88	0	131	
U	0	0	1	0
↱	0	0	0	0
→	120	0	135	1
↴	6	0	15	0

CONTROL
1-Way Stop(NB)

	AM	NOON	PM
TEV	253	0	324
PHF	0.93		0.94

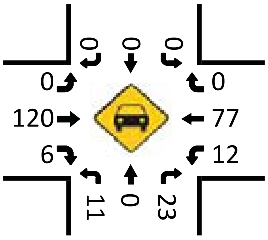
Hart St
WESTBOUND

		PM	NOON	AM
0	↰	0	0	0
1	←	123	0	77
0	↙	20	0	12
0	U	2	0	4
	⇨	157	0	147

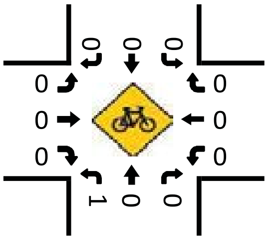
NORTHBOUND
Morella Ave

	⇩	U	↰	↑	↱
		0	0	1	0
PM	36	1	7	0	20
NOON	0	0	0	0	0
AM	18	0	11	0	23

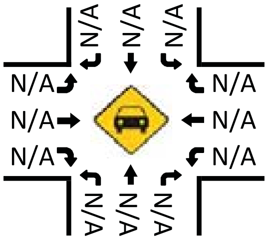
Total Vehicles (AM)



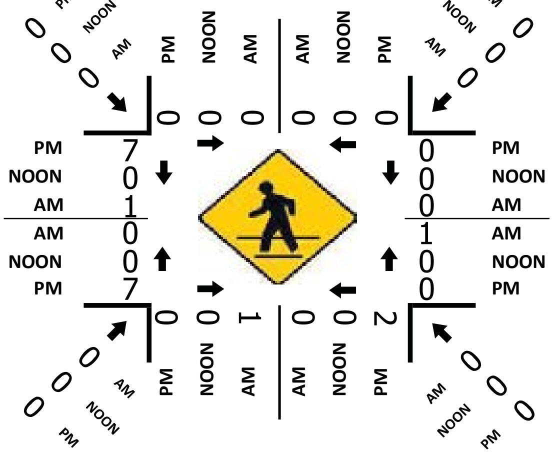
Bikes (AM)



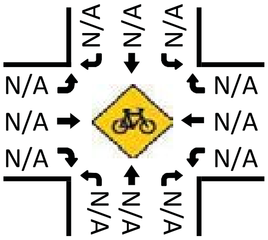
Total Vehicles (Noon)



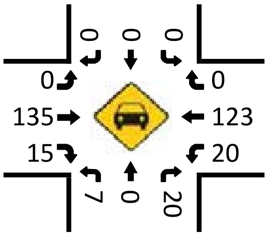
Pedestrians (Crosswalks)



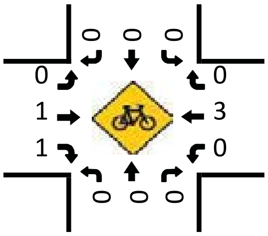
Bikes (NOON)



Total Vehicles (PM)



Bikes (PM)



National Data & Surveying Services Intersection Turning Movement Count

Location: Lankershim Blvd & Hart St
City: North Hollywood
Control: Signalized

Project ID: 18-05143-005
Date: 3/7/2018

Total

NS/EW Streets:	Lankershim Blvd				Lankershim Blvd				Hart St				Hart St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	3	0	0	1	3	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	5	112	7	0	26	223	12	0	7	2	24	0	2	1	6	0	427
7:15 AM	3	96	8	0	31	229	23	0	17	2	16	0	2	2	7	0	436
7:30 AM	9	127	1	0	19	280	12	0	25	0	28	0	2	1	5	0	509
7:45 AM	6	162	4	0	25	274	17	0	18	5	20	0	4	1	8	0	544
8:00 AM	14	125	9	0	23	255	12	0	5	6	18	0	5	2	4	0	478
8:15 AM	7	131	6	0	25	207	12	0	12	4	16	0	2	0	13	0	435
8:30 AM	3	119	2	0	19	222	10	0	8	1	17	0	2	1	2	0	406
8:45 AM	3	127	6	0	17	191	14	0	14	0	13	0	3	0	6	0	394
9:00 AM	5	91	9	0	12	169	8	0	10	1	14	0	2	2	6	0	329
9:15 AM	7	95	2	2	13	155	6	0	15	2	16	0	1	1	8	0	323
9:30 AM	6	124	5	1	18	144	12	0	9	0	16	0	3	0	4	0	342
9:45 AM	5	130	6	0	11	135	12	0	7	0	6	0	6	0	9	0	327
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	73	1439	65	3	239	2484	150	0	147	23	204	0	34	11	78	0	4950
APPROACH %'s :	4.62%	91.08%	4.11%	0.19%	8.32%	86.46%	5.22%	0.00%	39.30%	6.15%	54.55%	0.00%	27.64%	8.94%	63.41%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	32	510	22	0	98	1038	64	0	65	13	82	0	13	6	24	0	1967
PEAK HR FACTOR :	0.571	0.787	0.611	0.000	0.790	0.927	0.696	0.000	0.650	0.542	0.732	0.000	0.650	0.750	0.750	0.000	0.904
	0.820				0.949				0.755				0.827				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	3	0	0	1	3	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	7	222	8	1	12	170	24	0	15	3	16	0	3	1	17	0	499
3:15 PM	10	180	4	1	13	204	11	0	9	1	15	0	8	1	12	0	469
3:30 PM	7	224	3	1	11	173	16	0	26	2	16	0	7	2	55	0	543
3:45 PM	14	256	5	1	12	164	12	0	22	2	19	0	2	2	24	0	535
4:00 PM	6	253	3	0	9	176	18	0	30	1	24	0	3	2	37	0	562
4:15 PM	10	240	5	0	8	205	19	1	21	2	14	0	4	4	37	0	570
4:30 PM	20	214	4	0	5	183	18	0	18	3	18	0	7	1	43	0	534
4:45 PM	7	271	5	0	8	191	17	0	28	5	15	0	5	1	11	0	564
5:00 PM	13	285	2	0	2	175	26	0	26	1	16	0	8	4	35	0	593
5:15 PM	13	267	2	0	6	199	18	0	21	2	23	0	5	1	15	0	572
5:30 PM	9	262	2	1	2	160	26	0	25	2	11	0	4	0	24	0	528
5:45 PM	10	276	1	1	3	168	20	0	18	0	19	0	0	2	9	0	527
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	126	2950	44	6	91	2168	225	1	259	24	206	0	56	21	319	0	6496
APPROACH %'s :	4.03%	94.37%	1.41%	0.19%	3.66%	87.24%	9.05%	0.04%	52.97%	4.91%	42.13%	0.00%	14.14%	5.30%	80.56%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	53	1037	13	0	21	748	79	0	93	11	72	0	25	7	104	0	2263
PEAK HR FACTOR :	0.663	0.910	0.650	0.000	0.656	0.940	0.760	0.000	0.830	0.550	0.783	0.000	0.781	0.438	0.605	0.000	0.954
	0.919				0.951				0.917				0.667				

National Data & Surveying Services Intersection Turning Movement Count

Location: Lankershim Blvd & Hart St
City: North Hollywood
Control: Signalized

Project ID: 18-05143-005
Date: 3/7/2018

Cars

NS/EW Streets:	Lankershim Blvd				Lankershim Blvd				Hart St				Hart St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	3	0	0	1	3	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	5	103	6	0	25	209	11	0	7	2	20	0	1	1	5	0	395
7:15 AM	3	90	7	0	31	219	21	0	17	2	15	0	0	2	7	0	414
7:30 AM	9	121	1	0	18	270	12	0	25	0	28	0	0	1	5	0	490
7:45 AM	6	153	4	0	23	259	17	0	18	5	20	0	1	1	6	0	513
8:00 AM	14	113	8	0	23	233	11	0	5	6	18	0	3	2	3	0	439
8:15 AM	6	121	4	0	23	185	12	0	11	4	16	0	2	0	12	0	396
8:30 AM	3	110	2	0	18	205	8	0	6	1	17	0	1	1	2	0	374
8:45 AM	2	118	4	0	12	171	11	0	12	0	13	0	2	0	4	0	349
9:00 AM	4	82	7	0	11	164	6	0	8	0	14	0	2	1	4	0	303
9:15 AM	7	86	2	2	11	143	6	0	14	1	15	0	1	1	6	0	295
9:30 AM	6	116	5	1	17	133	12	0	9	0	16	0	2	0	1	0	318
9:45 AM	3	121	5	0	10	126	11	0	5	0	6	0	3	0	6	0	296
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	68	1334	55	3	222	2317	138	0	137	21	198	0	18	10	61	0	4582
APPROACH %'s :	4.66%	91.37%	3.77%	0.21%	8.29%	86.55%	5.16%	0.00%	38.48%	5.90%	55.62%	0.00%	20.22%	11.24%	68.54%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	32	477	20	0	95	981	61	0	65	13	81	0	4	6	21	0	1856
PEAK HR FACTOR :	0.57	0.779	0.625	0.000	0.766	0.908	0.726	0.000	0.650	0.542	0.723	0.000	0.333	0.750	0.750	0.000	0.904
	0.811				0.948				0.750				0.861				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	3	0	0	1	3	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	5	214	8	1	7	163	21	0	15	2	14	0	3	1	14	0	468
3:15 PM	8	166	3	1	10	189	9	0	9	1	15	0	6	1	12	0	430
3:30 PM	7	214	1	1	7	165	15	0	23	1	16	0	7	2	52	0	511
3:45 PM	14	241	4	1	11	156	12	0	21	2	19	0	1	2	22	0	506
4:00 PM	6	244	3	0	9	171	17	0	28	1	23	0	3	2	36	0	543
4:15 PM	10	224	3	0	7	196	19	1	20	1	13	0	3	4	36	0	537
4:30 PM	19	205	3	0	3	176	18	0	17	3	18	0	5	1	43	0	511
4:45 PM	7	262	5	0	6	184	16	0	27	5	15	0	4	1	11	0	543
5:00 PM	13	275	2	0	1	173	26	0	26	1	16	0	7	4	33	0	577
5:15 PM	13	253	2	0	5	189	18	0	21	1	23	0	5	1	15	0	546
5:30 PM	9	255	2	1	2	158	26	0	24	2	11	0	4	0	24	0	518
5:45 PM	10	272	1	1	1	163	20	0	18	0	19	0	0	2	9	0	516
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	121	2825	37	6	69	2083	217	1	249	20	202	0	48	21	307	0	6206
APPROACH %'s :	4.05%	94.51%	1.24%	0.20%	2.91%	87.89%	9.16%	0.04%	52.87%	4.25%	42.89%	0.00%	12.77%	5.59%	81.65%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	52	995	12	0	15	722	78	0	91	10	72	0	21	7	102	0	2177
PEAK HR FACTOR :	0.68	0.905	0.600	0.000	0.625	0.955	0.750	0.000	0.843	0.500	0.783	0.000	0.750	0.438	0.593	0.000	0.943
	0.913				0.961				0.920				0.663				

National Data & Surveying Services Intersection Turning Movement Count

Location: Lankershim Blvd & Hart St
City: North Hollywood
Control: Signalized

Project ID: 18-05143-005
Date: 3/7/2018

HT

NS/EW Streets:	Lankershim Blvd				Lankershim Blvd				Hart St				Hart St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	3	0	0	1	3	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	5	1	0	1	9	1	0	0	0	4	0	1	0	1	0	23
7:15 AM	0	4	1	0	0	7	2	0	0	0	1	0	2	0	0	0	17
7:30 AM	0	3	0	0	1	7	0	0	0	0	0	0	2	0	0	0	13
7:45 AM	0	5	0	0	2	12	0	0	0	0	0	0	3	0	2	0	24
8:00 AM	0	10	1	0	0	20	1	0	0	0	0	0	2	0	1	0	35
8:15 AM	1	8	2	0	2	17	0	0	1	0	0	0	0	0	1	0	32
8:30 AM	0	9	0	0	1	16	2	0	2	0	0	0	1	0	0	0	31
8:45 AM	1	6	2	0	5	16	3	0	2	0	0	0	1	0	2	0	38
9:00 AM	1	8	2	0	1	4	2	0	2	1	0	0	0	1	2	0	24
9:15 AM	0	7	0	0	2	10	0	0	1	1	1	0	0	0	2	0	24
9:30 AM	0	7	0	0	1	10	0	0	0	0	0	0	1	0	3	0	22
9:45 AM	2	8	1	0	1	8	1	0	2	0	0	0	3	0	3	0	29
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	5	80	10	0	17	136	12	0	10	2	6	0	16	1	17	0	312
APPROACH %'s :	5.26%	84.21%	10.53%	0.00%	10.30%	82.42%	7.27%	0.00%	55.56%	11.11%	33.33%	0.00%	47.06%	2.94%	50.00%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	0	22	2	0	3	46	3	0	0	0	1	0	9	0	3	0	89
PEAK HR FACTOR :	0.000	0.550	0.500	0.000	0.375	0.575	0.375	0.000	0.000	0.000	0.250	0.000	0.750	0.000	0.375	0.000	0.636
	0.545				0.619				0.250				0.600				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	3	0	0	1	3	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	2	8	0	0	5	6	3	0	0	1	2	0	0	0	3	0	30
3:15 PM	2	12	1	0	3	13	2	0	0	0	0	0	2	0	0	0	35
3:30 PM	0	7	2	0	4	7	1	0	3	1	0	0	0	0	3	0	28
3:45 PM	0	11	1	0	1	6	0	0	1	0	0	0	1	0	2	0	23
4:00 PM	0	7	0	0	0	3	1	0	2	0	1	0	0	0	1	0	15
4:15 PM	0	12	2	0	1	4	0	0	1	1	1	0	1	0	1	0	24
4:30 PM	1	6	1	0	2	6	0	0	1	0	0	0	2	0	0	0	19
4:45 PM	0	7	0	0	2	3	1	0	1	0	0	0	1	0	0	0	15
5:00 PM	0	6	0	0	1	2	0	0	0	0	0	0	1	0	2	0	12
5:15 PM	0	11	0	0	1	3	0	0	0	1	0	0	0	0	0	0	16
5:30 PM	0	4	0	0	0	1	0	0	1	0	0	0	0	0	0	0	6
5:45 PM	0	2	0	0	2	2	0	0	0	0	0	0	0	0	0	0	6
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	5	93	7	0	22	56	8	0	10	4	4	0	8	0	12	0	229
APPROACH %'s :	4.76%	88.57%	6.67%	0.00%	25.58%	65.12%	9.30%	0.00%	55.56%	22.22%	22.22%	0.00%	40.00%	0.00%	60.00%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	1	30	1	0	6	14	1	0	2	1	0	0	4	0	2	0	62
PEAK HR FACTOR :	0.25	0.682	0.250	0.000	0.750	0.583	0.250	0.000	0.500	0.250	0.000	0.000	0.500	0.000	0.250	0.000	0.816
	0.727				0.656				0.750				0.500				

National Data & Surveying Services Intersection Turning Movement Count

Location: Lankershim Blvd & Hart St
City: North Hollywood
Control: Signalized

Project ID: 18-05143-005
Date: 3/7/2018

Buses

NS/EW Streets:	Lankershim Blvd				Lankershim Blvd				Hart St				Hart St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	3	0	0	1	3	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	4	0	0	0	5	0	0	0	0	0	0	0	0	0	0	9
7:15 AM	0	2	0	0	0	3	0	0	0	0	0	0	0	0	0	0	5
7:30 AM	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	6
7:45 AM	0	4	0	0	0	3	0	0	0	0	0	0	0	0	0	0	7
8:00 AM	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	4
8:15 AM	0	2	0	0	0	5	0	0	0	0	0	0	0	0	0	0	7
8:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
8:45 AM	0	3	0	0	0	4	0	0	0	0	0	0	0	0	0	0	7
9:00 AM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
9:15 AM	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	4
9:30 AM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
9:45 AM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	25	0	0	0	31	0	0	0	0	0	0	0	0	0	0	56
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%									
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	0	11	0	0	0	11	0	0	0	0	0	0	0	0	0	0	22
PEAK HR FACTOR :	0.000	0.688	0.000	0.000	0.000	0.917	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.786
	0.688				0.917												

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	3	0	0	1	3	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
3:15 PM	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	4
3:30 PM	0	3	0	0	0	1	0	0	0	0	0	0	0	0	0	0	4
3:45 PM	0	4	0	0	0	2	0	0	0	0	0	0	0	0	0	0	6
4:00 PM	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	4
4:15 PM	0	4	0	0	0	5	0	0	0	0	0	0	0	0	0	0	9
4:30 PM	0	3	0	0	0	1	0	0	0	0	0	0	0	0	0	0	4
4:45 PM	0	2	0	0	0	4	0	0	0	0	0	0	0	0	0	0	6
5:00 PM	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
5:15 PM	0	3	0	0	0	7	0	0	0	0	0	0	0	0	0	0	10
5:30 PM	0	3	0	0	0	1	0	0	0	0	0	0	0	0	0	0	4
5:45 PM	0	2	0	0	0	3	0	0	0	0	0	0	0	0	0	0	5
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	32	0	0	0	29	0	0	0	0	0	0	0	0	0	0	61
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%									
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	0	12	0	0	0	12	0	0	0	0	0	0	0	0	0	0	24
PEAK HR FACTOR :	0.00	0.750	0.000	0.000	0.000	0.429	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.600
	0.750				0.429												

National Data & Surveying Services Intersection Turning Movement Count

Location: Lankershim Blvd & Hart St
City: North Hollywood
Project ID: 18-05143-005
Date: 3/7/2018

Peds_Kids

NS/EW Streets:	Lankershim Blvd		Lankershim Blvd		Hart St		Hart St		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
7:00 AM	0	0	0	0	0	0	0	1	1
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	1	0	0	0	1
7:45 AM	1	0	0	0	0	0	0	0	1
8:00 AM	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	1	0	0	0	0	1
9:15 AM	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	1	0	0	0	0	0	1
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	1	0	1	1	1	0	0	1	5
APPROACH %'s :	100.00%	0.00%	50.00%	50.00%	100.00%	0.00%	0.00%	100.00%	
PEAK HR :	07:15 AM - 08:15 AM								TOTAL
PEAK HR VOL :	1	0	0	0	1	0	0	0	2
PEAK HR FACTOR :	0.250				0.250				0.500
	0.250				0.250				

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
3:00 PM	0	0	0	0	0	0	0	2	2
3:15 PM	0	0	1	0	0	0	0	0	1
3:30 PM	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	1	0	0	1
4:00 PM	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	1	1	2
5:30 PM	0	1	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	1	1	0	0	1	1	3	7
APPROACH %'s :	0.00%	100.00%	100.00%	0.00%	0.00%	100.00%	25.00%	75.00%	
PEAK HR :	04:30 PM - 05:30 PM								TOTAL
PEAK HR VOL :	0	0	0	0	0	0	1	1	2
PEAK HR FACTOR :							0.250	0.250	0.250
							0.250		

National Data & Surveying Services Intersection Turning Movement Count

Location: Lankershim Blvd & Hart St
City: North Hollywood

Project ID: 18-05143-005
Date: 3/7/2018

Peds_Adults

NS/EW Streets:	Lankershim Blvd		Lankershim Blvd		Hart St		Hart St		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
7:00 AM	2	0	0	0	2	0	0	2	6
7:15 AM	0	5	1	2	0	3	3	1	15
7:30 AM	0	0	1	1	1	2	1	1	7
7:45 AM	2	0	0	1	1	1	2	1	8
8:00 AM	1	1	0	0	0	2	0	0	4
8:15 AM	0	0	0	1	0	2	0	0	3
8:30 AM	2	0	0	0	1	0	1	0	4
8:45 AM	2	0	1	0	1	0	1	1	6
9:00 AM	1	0	0	0	0	1	0	0	2
9:15 AM	0	0	1	0	1	0	0	1	3
9:30 AM	1	0	0	0	0	0	1	1	3
9:45 AM	1	0	0	0	1	2	0	1	5
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	12	6	4	5	8	13	9	9	66
APPROACH %'s :	66.67%	33.33%	44.44%	55.56%	38.10%	61.90%	50.00%	50.00%	
PEAK HR :	07:15 AM - 08:15 AM								TOTAL
PEAK HR VOL :	3	6	2	4	2	8	6	3	34
PEAK HR FACTOR :	0.375	0.300	0.500	0.500	0.500	0.667	0.500	0.750	0.567
	0.450		0.500		0.833		0.563		

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
3:00 PM	0	1	0	3	0	2	1	1	8
3:15 PM	1	2	0	2	1	3	0	1	10
3:30 PM	1	0	1	0	0	1	1	3	7
3:45 PM	0	1	0	1	2	2	1	0	7
4:00 PM	0	1	0	0	0	0	6	2	9
4:15 PM	0	0	0	2	3	2	1	0	8
4:30 PM	0	0	1	0	2	0	2	2	7
4:45 PM	0	0	1	1	1	2	1	0	6
5:00 PM	0	2	0	1	0	1	0	1	5
5:15 PM	1	0	0	3	0	4	3	1	12
5:30 PM	0	1	0	1	0	1	0	1	4
5:45 PM	0	0	0	0	1	0	1	0	2
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	3	8	3	14	10	18	17	12	85
APPROACH %'s :	27.27%	72.73%	17.65%	82.35%	35.71%	64.29%	58.62%	41.38%	
PEAK HR :	04:30 PM - 05:30 PM								TOTAL
PEAK HR VOL :	1	2	2	5	3	7	6	4	30
PEAK HR FACTOR :	0.250	0.250	0.500	0.417	0.375	0.438	0.500	0.500	0.625
	0.375		0.583		0.625		0.625		

National Data & Surveying Services Intersection Turning Movement Count

Location: Lankershim Blvd & Hart St
City: North Hollywood
Control: Signalized

Project ID: 18-05143-005
Date: 3/7/2018

Bikes

NS/EW Streets:	Lankershim Blvd				Lankershim Blvd				Hart St				Hart St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	3	0	0	1	3	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	2	0	0	0	3	0	0	0	0	0	0	0	0	0	0	5
7:15 AM	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2
7:30 AM	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	3
7:45 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
8:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
8:45 AM	0	1	0	0	0	0	0	0	1	0	1	0	0	0	0	0	3
9:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
9:15 AM	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	3
9:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
9:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	5	0	0	1	15	0	0	1	0	2	0	0	0	0	0	24
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	6.25%	93.75%	0.00%	0.00%	33.33%	0.00%	66.67%	0.00%					
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	0	0	0	0	1	7	0	0	0	0	0	0	0	0	0	0	8
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.250	0.583	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.667
						0.667											

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	3	0	0	1	3	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	2	0	0	0	1	1	0	0	0	0	0	0	0	0	0	4
3:45 PM	0	1	0	0	0	3	0	0	0	0	0	0	0	0	0	0	4
4:00 PM	0	3	0	0	0	1	0	0	0	0	1	0	0	0	1	0	6
4:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	2
4:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:45 PM	0	1	0	0	0	3	2	0	3	0	0	0	0	0	0	0	9
5:00 PM	0	0	0	0	0	2	0	1	0	0	0	0	0	0	0	0	3
5:15 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
5:30 PM	1	1	0	0	0	1	0	0	1	0	0	0	0	0	0	0	4
5:45 PM	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	2
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	1	10	0	0	0	14	4	1	4	0	2	0	0	0	2	0	38
APPROACH %'s :	9.09%	90.91%	0.00%	0.00%	0.00%	73.68%	21.05%	5.26%	66.67%	0.00%	33.33%	0.00%	0.00%	0.00%	100.00%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	0	3	0	0	0	6	2	1	3	0	0	0	0	0	0	0	15
PEAK HR FACTOR :	0.00	0.750	0.000	0.000	0.000	0.500	0.250	0.250	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.417
		0.750				0.450				0.250							

National Data & Surveying Services Intersection Turning Movement Count

Location: Lankershim Blvd & Hart St
City: North Hollywood
Project ID: 18-05143-005
Date: 3/7/2018

Pedestrians (Crosswalks)

NS/EW Streets:	Lankershim Blvd		Lankershim Blvd		Hart St		Hart St		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
7:00 AM	2	0	0	0	2	0	0	3	7
7:15 AM	0	5	1	2	0	3	3	1	15
7:30 AM	0	0	1	1	2	2	1	1	8
7:45 AM	3	0	0	1	1	1	2	1	9
8:00 AM	1	1	0	0	0	2	0	0	4
8:15 AM	0	0	0	1	0	2	0	0	3
8:30 AM	2	0	0	0	1	0	1	0	4
8:45 AM	2	0	1	0	1	0	1	1	6
9:00 AM	1	0	0	1	0	1	0	0	3
9:15 AM	0	0	1	0	1	0	0	1	3
9:30 AM	1	0	0	0	0	0	1	1	3
9:45 AM	1	0	1	0	1	2	0	1	6
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	13	6	5	6	9	13	9	10	71
APPROACH %'s :	68.42%	31.58%	45.45%	54.55%	40.91%	59.09%	47.37%	52.63%	
PEAK HR :	**07:15 AM - 08:15 AM**								TOTAL
PEAK HR VOL :	4	6	2	4	3	8	6	3	36
PEAK HR FACTOR :	0.333	0.300	0.500	0.500	0.375	0.667	0.500	0.750	0.600
	0.500		0.500		0.688		0.563		

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
3:00 PM	0	1	0	3	0	2	1	3	10
3:15 PM	1	2	1	2	1	3	0	1	11
3:30 PM	1	0	1	0	0	1	1	3	7
3:45 PM	0	1	0	1	2	3	1	0	8
4:00 PM	0	1	0	0	0	0	6	2	9
4:15 PM	0	0	0	2	3	2	1	0	8
4:30 PM	0	0	1	0	2	0	2	2	7
4:45 PM	0	0	1	1	1	2	1	0	6
5:00 PM	0	2	0	1	0	1	0	1	5
5:15 PM	1	0	0	3	0	4	4	2	14
5:30 PM	0	2	0	1	0	1	0	1	5
5:45 PM	0	0	0	0	1	0	1	0	2
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	3	9	4	14	10	19	18	15	92
APPROACH %'s :	25.00%	75.00%	22.22%	77.78%	34.48%	65.52%	54.55%	45.45%	
PEAK HR :	**04:30 PM - 05:30 PM**								TOTAL
PEAK HR VOL :	1	2	2	5	3	7	7	5	32
PEAK HR FACTOR :	0.250	0.250	0.500	0.417	0.375	0.438	0.438	0.625	0.571
	0.375		0.583		0.625		0.500		

Prepared by National Data & Surveying Services

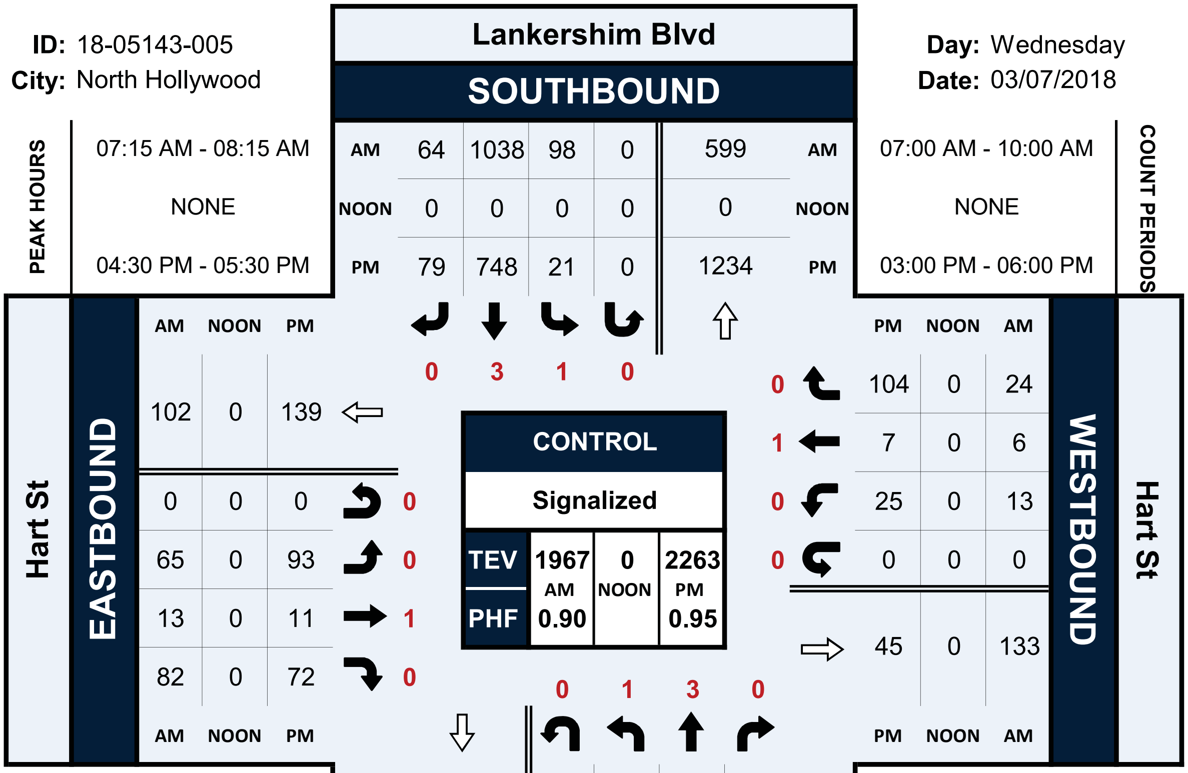
Lankershim Blvd & Hart St

Peak Hour Turning Movement Count

ID: 18-05143-005
City: North Hollywood

Day: Wednesday
Date: 03/07/2018

PEAK HOURS		COUNT PERIODS
07:15 AM - 08:15 AM	AM	07:00 AM - 10:00 AM
NONE	NOON	NONE
04:30 PM - 05:30 PM	PM	03:00 PM - 06:00 PM



Lankershim Blvd
SOUTHBOUND

	↲	↓	↳	⮌	⇧
AM	64	1038	98	0	599
NOON	0	0	0	0	0
PM	79	748	21	0	1234
	0	3	1	0	

Hart St
EASTBOUND

	AM	NOON	PM	
⇦	102	0	139	
⮌	0	0	0	0
↱	65	0	93	0
→	13	0	11	1
↴	82	0	72	0

Hart St
WESTBOUND

		PM	NOON	AM
0	↰	104	0	24
1	←	7	0	6
0	↙	25	0	13
0	⮌	0	0	0
	⇨	45	0	133

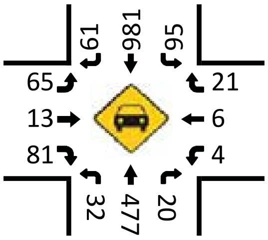
CONTROL
Signalized

	AM	NOON	PM
TEV	1967	0	2263
PHF	0.90		0.95

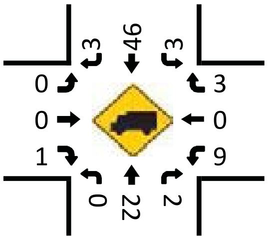
NORTHBOUND
Lankershim Blvd

	⇩	⮌	↰	↑	↱
		0	1	3	0
PM	845	0	53	1037	13
NOON	0	0	0	0	0
AM	1133	0	32	510	22

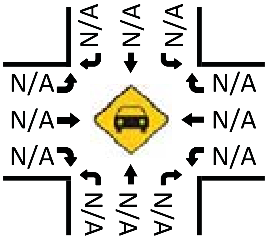
Cars (AM)



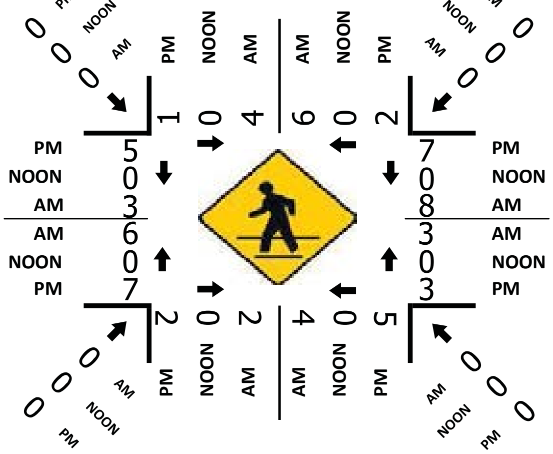
HT (AM)



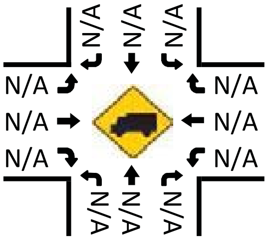
Cars (NOON)



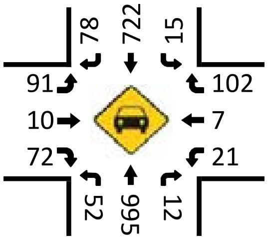
Pedestrians (Crosswalks)



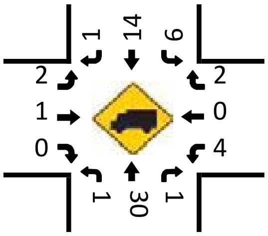
HT (NOON)



Cars (PM)



HT (PM)



City Of Los Angeles
Department Of Transportation

MANUAL TRAFFIC COUNT SUMMARY

STREET:
North/South Lankershim Blvd

East/West Hart St

Day: Wednesday Date: 03/07/2018 Weather: SUNNY

Hours: Chekrs: NDS

School Day: YES I/S CODE

	N/B	S/B	E/B	W/B
DUAL-WHEELED	200	251	36	54
BIKES	16	35	9	2
BUSES	57	60	0	0

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	172	7.45	316	7.45	53	7.30	15	8.15
PM PK 15 MIN	300	17.00	233	16.15	55	16.00	64	15.30
AM PK HOUR	601	7.30	1200	7.15	164	7.00	47	7.30
PM PK HOUR	1144	17.00	858	16.00	179	15.30	179	15.30

NORTHBOUND Approach					**SOUTHBOUND Approach**					**TOTAL**	**XING S/L**		**XING N/L**	
Hours	Lt	Th	Rt	Total	Hours	Lt	Th	Rt	Total	N-S	Ped	Sch	Ped	Sch
7-8	23	497	20	540	*7-8*	101	1006	64	1171	1711	6	0	9	1
8-9	27	502	23	552	*8-9*	84	875	48	1007	1559	2	0	6	0
9-10	26	440	22	488	*9-10*	54	603	38	695	1183	1	2	3	0
15-16	42	882	20	944	*15-16*	48	711	63	822	1766	7	1	6	0
16-17	43	978	17	1038	*16-17*	31	755	72	858	1896	5	0	1	0
17-18	47	1090	7	1144	*17-18*	13	702	90	805	1949	5	0	4	1
TOTAL	208	4389	109	4706	TOTAL	331	4652	375	5358	10064	26	3	29	2

EASTBOUND Approach					**WESTBOUND Approach**					**TOTAL**	**XING W/L**		**XING E/L**	
Hours	Lt	Th	Rt	Total	Hours	Lt	Th	Rt	Total	E-W	Ped	Sch	Ped	Sch
7-8	67	9	88	164	*7-8*	10	5	26	41	205	11	1	10	1
8-9	39	11	64	114	*8-9*	12	3	25	40	154	3	0	6	0
9-10	41	3	52	96	*9-10*	12	3	27	42	138	4	0	5	0
15-16	72	8	66	146	*15-16*	20	6	108	134	280	8	2	11	1
16-17	97	11	71	179	*16-17*	19	8	128	155	334	14	0	10	0
17-18	90	5	69	164	*17-18*	17	7	83	107	271	7	2	7	0
TOTAL	406	47	410	863	TOTAL	90	32	397	519	1382	47	5	49	2

National Data & Surveying Services Intersection Turning Movement Count

Location: Morella Ave & Dehougne St
City: North Hollywood
Control: 2-Way Stop(EB/WB)

Project ID: 18-05143-006
Date: 3/7/2018

Total

NS/EW Streets:	Morella Ave				Morella Ave				Dehougne St				Dehougne St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	5	0	2	0	0	1	7	0	2	3	2	0	0	3	1	0	26
7:15 AM	4	2	1	0	0	2	3	0	2	2	1	0	3	6	1	0	27
7:30 AM	9	2	1	0	0	2	10	0	3	8	5	0	0	5	1	1	47
7:45 AM	1	1	1	0	0	0	4	0	7	2	1	0	0	4	1	0	22
8:00 AM	0	0	0	0	2	0	1	0	0	4	3	1	2	2	1	0	16
8:15 AM	1	1	1	0	1	0	0	0	1	2	1	0	1	5	1	1	16
8:30 AM	1	0	0	0	0	0	1	0	1	4	2	0	0	1	2	0	12
8:45 AM	3	1	1	0	1	1	2	1	1	2	1	0	0	2	0	0	16
9:00 AM	2	1	1	0	1	0	4	0	1	3	3	0	1	1	5	0	23
9:15 AM	2	0	1	0	0	0	0	0	0	5	0	0	0	1	0	0	9
9:30 AM	3	1	0	0	1	1	3	1	3	2	1	0	0	1	0	0	17
9:45 AM	1	0	0	0	0	3	1	0	0	1	0	0	0	4	0	0	10
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	32	9	9	0	6	10	36	2	21	38	20	1	7	35	13	2	241
APPROACH %'s :	64.00%	18.00%	18.00%	0.00%	11.11%	18.52%	66.67%	3.70%	26.25%	47.50%	25.00%	1.25%	12.28%	61.40%	22.81%	3.51%	
PEAK HR :	07:00 AM - 08:00 AM																TOTAL
PEAK HR VOL :	19	5	5	0	0	5	24	0	14	15	9	0	3	18	4	1	122
PEAK HR FACTOR :	0.528	0.625	0.625	0.000	0.000	0.625	0.600	0.000	0.500	0.469	0.450	0.000	0.250	0.750	1.000	0.250	0.649
	0.604				0.604				0.594				0.650				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	2	1	1	0	1	2	3	0	4	2	3	0	2	3	0	0	24
3:15 PM	4	0	0	0	1	1	5	0	2	3	2	0	1	2	1	0	22
3:30 PM	3	1	1	0	2	0	2	0	3	7	1	0	2	6	0	0	28
3:45 PM	1	0	1	0	1	2	4	0	5	8	0	0	1	0	3	0	26
4:00 PM	0	1	1	0	0	1	1	0	2	4	2	0	0	1	2	0	15
4:15 PM	3	0	1	0	1	1	1	0	3	1	1	0	2	1	2	0	17
4:30 PM	2	0	0	0	0	1	3	0	3	2	1	0	2	0	0	0	14
4:45 PM	2	0	0	0	3	1	5	0	3	3	5	1	2	2	1	0	28
5:00 PM	4	1	1	0	0	2	6	0	3	5	2	0	0	1	0	0	25
5:15 PM	1	0	3	0	1	1	2	0	5	6	0	0	1	7	1	0	28
5:30 PM	2	2	1	0	0	2	3	0	5	4	1	1	1	4	3	0	29
5:45 PM	3	0	1	0	2	0	5	0	4	7	3	1	4	3	7	0	40
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	27	6	11	0	12	14	40	0	42	52	21	3	18	30	20	0	296
APPROACH %'s :	61.36%	13.64%	25.00%	0.00%	18.18%	21.21%	60.61%	0.00%	35.59%	44.07%	17.80%	2.54%	26.47%	44.12%	29.41%	0.00%	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	10	3	6	0	3	5	16	0	17	22	6	2	6	15	11	0	122
PEAK HR FACTOR :	0.625	0.375	0.500	0.000	0.375	0.625	0.667	0.000	0.850	0.786	0.500	0.500	0.375	0.536	0.393	0.000	0.763
	0.792				0.750				0.783				0.571				

National Data & Surveying Services Intersection Turning Movement Count

Location: Morella Ave & Dehougne St
City: North Hollywood
Control: 2-Way Stop(EB/WB)

Project ID: 18-05143-006
Date: 3/7/2018

Bikes

NS/EW Streets:	Morella Ave				Morella Ave				Dehougne St				Dehougne St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	2
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	2	0	0	0	0	0	0	1	0	0	0	0	1	0	4
APPROACH %'s :	0.00%	0.00%	100.00%	0.00%					0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	
PEAK HR :	07:00 AM - 08:00 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
APPROACH %'s :													0.00%	100.00%	0.00%	0.00%	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
PEAK HR FACTOR :	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.250
														0.250			

National Data & Surveying Services

Intersection Turning Movement Count

Location: Morella Ave & Dehougne St
City: North Hollywood

Project ID: 18-05143-006
Date: 3/7/2018

Pedestrians (Crosswalks)

NS/EW Streets:	Morella Ave		Morella Ave		Dehougne St		Dehougne St		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
7:00 AM	2	0	1	1	0	0	0	0	4
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0
7:45 AM	2	0	2	1	0	0	0	0	5
8:00 AM	0	0	0	0	0	0	0	0	0
8:15 AM	1	0	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0
9:00 AM	0	1	2	0	0	0	0	0	3
9:15 AM	0	1	0	0	0	0	0	0	1
9:30 AM	2	0	0	1	0	0	0	0	3
9:45 AM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	7	2	5	3	0	0	0	0	17
APPROACH %'s :	77.78%	22.22%	62.50%	37.50%					
PEAK HR :	**07:00 AM - 08:00 AM**								TOTAL
PEAK HR VOL :	4	0	3	2	0	0	0	0	9
PEAK HR FACTOR :	0.500		0.375	0.500					0.450
	0.500		0.417						

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
3:00 PM	3	0	0	0	0	0	0	0	3
3:15 PM	3	0	0	0	0	0	0	1	4
3:30 PM	0	1	2	0	0	0	0	1	4
3:45 PM	0	0	1	0	0	0	0	0	1
4:00 PM	0	3	1	0	0	0	1	0	5
4:15 PM	3	0	1	0	0	0	0	0	4
4:30 PM	0	0	0	1	2	0	0	0	3
4:45 PM	0	0	0	0	0	0	1	0	1
5:00 PM	0	3	0	0	1	0	0	2	6
5:15 PM	1	4	0	0	0	0	0	2	7
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	2	0	0	0	0	0	0	0	2
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	12	11	5	1	3	0	2	6	40
APPROACH %'s :	52.17%	47.83%	83.33%	16.67%	100.00%	0.00%	25.00%	75.00%	
PEAK HR :	**05:00 PM - 06:00 PM**								TOTAL
PEAK HR VOL :	3	7	0	0	1	0	0	4	15
PEAK HR FACTOR :	0.375	0.438			0.250			0.500	0.536
	0.500				0.250		0.500		

Prepared by National Data & Surveying Services

Morella Ave & Dehougne St

Peak Hour Turning Movement Count

ID: 18-05143-006
City: North Hollywood

Day: Wednesday
Date: 03/07/2018

PEAK HOURS		COUNT PERIODS
07:00 AM - 08:00 AM	AM	07:00 AM - 10:00 AM
NONE	NOON	NONE
05:00 PM - 06:00 PM	PM	03:00 PM - 06:00 PM

Morella Ave

SOUTHBOUND

	↲	↓	↳	↶	⇧
AM	24	5	0	0	23
NOON	0	0	0	0	0
PM	16	5	3	0	31
	0	1	0	0	

Dehougne St

EASTBOUND

	AM	NOON	PM	
⇦	61	0	43	
↶	0	0	2	0
↱	14	0	17	0
→	15	0	22	1
↴	9	0	6	0

WESTBOUND

Dehougne St

		PM	NOON	AM
0	↰	11	0	4
1	←	15	0	18
0	↙	6	0	3
0	↷	0	0	1
	⇨	31	0	21

CONTROL			
2-Way Stop(EB/WB)			
TEV	122 AM	0 NOON	122 PM
PHF	0.65		0.76

	⇩	↶	↰	↑	↱
		0	0	1	0
PM	17	0	10	3	6
NOON	0	0	0	0	0
AM	17	0	19	5	5

NORTHBOUND

Morella Ave

Total Vehicles (AM)

	Right	Through	Left
Southbound	24	5	0
Eastbound	9	15	14
Westbound	4	18	3
Northbound	5	5	19

Total Vehicles (Noon)

N/A (all movements)

Total Vehicles (PM)

Southbound	16	5	3
Eastbound	17	22	6
Westbound	11	15	6
Northbound	10	3	6

Bikes (AM)

Southbound	0	0	0
Eastbound	0	0	0
Westbound	0	0	0
Northbound	0	0	0

Bikes (NOON)

N/A (all movements)

Bikes (PM)

Southbound	0	0	0
Eastbound	0	0	0
Westbound	0	1	0
Northbound	0	0	0

Pedestrians (Crosswalks)

	PM	NOON	AM
NW diagonal	0	0	0
North crosswalk →	3	0	4
North crosswalk ←	7	0	0
NE diagonal	0	0	0
West crosswalk ↓	4	0	0
West crosswalk ↑	0	0	0
East crosswalk ↓	0	0	0
East crosswalk ↑	1	0	0
South crosswalk →	0	0	3
South crosswalk ←	0	0	2
SW diagonal	0	0	0
SE diagonal	0	0	0

- PCE Adjusted Intersection Turn Movement Counts

Summary of PCE Adjusted Counts for North Hollywood Central - AM

Intersection	AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND			
		NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU
Laurel Canyon Blvd/Runnymede St																	
Total	7:15 AM - 8:15 AM	0	491	22	4	55	999	1	0	0	0	0	0	42	0	97	0
Cars	7:15 AM - 8:15 AM	0	468	19	4	54	973	1	0	0	0	0	0	42	0	95	0
HT	7:15 AM - 8:15 AM	0	19	3	0	1	23	0	0	0	0	0	0	0	0	2	0
Buses	7:15 AM - 8:15 AM	0	4	0	0	0	3	0	0	0	0	0	0	0	0	0	0
PCE Adjusted		**0**	**533**	**28**	**4**	**57**	**1048**	**1**	**0**	**0**	**0**	**0**	**0**	**42**	**0**	**101**	**0**
Radford Ave/Sherman Rd																	
Total	07:45 AM - 08:45 AM	45	108	0	1	0	81	20	2	5	0	26	1	0	0	0	0
Cars	07:45 AM - 08:45 AM	44	105	0	1	0	72	18	2	3	0	20	1	0	0	0	0
HT	07:45 AM - 08:45 AM	1	3	0	0	0	9	2	0	2	0	6	0	0	0	0	0
Buses	07:45 AM - 08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PCE Adjusted		**47**	**114**	**0**	**1**	**0**	**99**	**24**	**2**	**9**	**0**	**38**	**1**	**0**	**0**	**0**	**0**
Hinds Ave/Sherman Wy																	
Total	07:30 AM - 08:30 AM	12	0	1	0	7	0	21	0	18	1168	0	2	1	825	20	2
Cars	07:30 AM - 08:30 AM	6	0	1	0	6	0	20	0	18	1111	0	2	1	780	17	2
HT	07:30 AM - 08:30 AM	6	0	0	0	1	0	1	0	0	51	0	0	0	40	3	0
Buses	07:30 AM - 08:30 AM	0	0	0	0	0	0	0	0	0	6	0	0	0	5	0	0
PCE Adjusted		**24**	**0**	**1**	**0**	**9**	**0**	**23**	**0**	**18**	**1276**	**0**	**2**	**1**	**910**	**26**	**2**
Morella Ave/Hart St																	
Total	7:15 AM - 8:15 AM	11	0	23	0	0	0	0	0	0	120	6	0	12	77	0	4
Cars	7:15 AM - 8:15 AM	11	0	23	0	0	0	0	0	0	120	6	0	12	77	0	4
HT	7:15 AM - 8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Buses	7:15 AM - 8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PCE Adjusted		**11**	**0**	**23**	**0**	**0**	**0**	**0**	**0**	**0**	**120**	**6**	**0**	**12**	**77**	**0**	**4**
Lankershim Blvd/Hart St																	
Total	7:15 AM - 8:15 AM	32	510	22	0	98	1038	64	0	65	13	82	0	13	6	24	0
Cars	7:15 AM - 8:15 AM	32	477	20	0	95	981	61	0	65	13	81	0	4	6	21	0
HT	7:15 AM - 8:15 AM	0	22	2	0	3	46	3	0	0	0	1	0	9	0	3	0
Buses	7:15 AM - 8:15 AM	0	11	0	0	0	11	0	0	0	0	0	0	0	0	0	0
PCE Adjusted		**32**	**565**	**26**	**0**	**104**	**1141**	**70**	**0**	**65**	**13**	**84**	**0**	**31**	**6**	**30**	**0**
Morella Ave/Dehougne St																	
Total	07:00 AM - 08:00 AM	19	5	5	0	0	5	24	0	14	15	9	0	3	18	4	1
Cars	07:00 AM - 08:00 AM	19	5	5	0	0	5	24	0	14	15	9	0	3	18	4	1
HT	07:00 AM - 08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Buses	07:00 AM - 08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PCE Adjusted		**19**	**5**	**5**	**0**	**0**	**5**	**24**	**0**	**14**	**15**	**9**	**0**	**3**	**18**	**4**	**1**

Summary of PCE Adjusted Counts for North Hollywood Central - PM

	PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND			
Intersection		NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU
Laurel Canyon Blvd/Runnymede St																	
Total	4:30 PM-5:30 PM	2	1311	45	4	47	589	0	9	0	0	0	0	23	0	72	0
Cars	4:30 PM-5:30 PM	2	1278	42	4	46	564	0	8	0	0	0	0	22	0	69	0
HT	4:30 PM-5:30 PM	0	29	3	0	1	23	0	1	0	0	0	0	1	0	3	0
Buses	4:30 PM-5:30 PM	0	4	0	0	0	2	0	0	0	0	0	0	0	0	0	0
PCE Adjusted		**2**	**1373**	**51**	**4**	**49**	**637**	**0**	**11**	**0**	**0**	**0**	**0**	**25**	**0**	**78**	**0**
Radford Ave/Sherman Rd																	
Total	03:45 PM - 04:45 PM	18	108	0	3	0	114	9	0	25	0	52	0	0	0	0	0
Cars	03:45 PM - 04:45 PM	16	101	0	3	0	104	9	0	24	0	52	0	0	0	0	0
HT	03:45 PM - 04:45 PM	2	7	0	0	0	10	0	0	1	0	0	0	0	0	0	0
Buses	03:45 PM - 04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PCE Adjusted		**22**	**122**	**0**	**3**	**0**	**134**	**9**	**0**	**27**	**0**	**52**	**0**	**0**	**0**	**0**	**0**
Hinds Ave/Sherman Wy																	
Total	03:15 PM - 04:15 PM	0	0	1	0	15	0	26	0	29	1091	1	0	0	1043	36	1
Cars	03:15 PM - 04:15 PM	0	0	0	0	15	0	26	0	28	1031	1	0	0	1019	34	1
HT	03:15 PM - 04:15 PM	0	0	1	0	0	0	0	0	1	55	0	0	0	18	2	0
Buses	03:15 PM - 04:15 PM	0	0	0	0	0	0	0	0	0	5	0	0	0	6	0	0
PCE Adjusted		**0**	**0**	**3**	**0**	**15**	**0**	**26**	**0**	**31**	**1206**	**1**	**0**	**0**	**1085**	**40**	**1**
Morella Ave/Hart St																	
Total	5:00 PM-6:00 PM	7	0	20	1	0	0	0	0	0	135	15	1	20	123	0	2
Cars	5:00 PM-6:00 PM	7	0	20	1	0	0	0	0	0	135	15	1	20	123	0	2
HT	5:00 PM-6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Buses	5:00 PM-6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PCE Adjusted		**7**	**0**	**20**	**1**	**0**	**0**	**0**	**0**	**0**	**135**	**15**	**1**	**20**	**123**	**0**	**2**
Lankershim Blvd/Hart St																	
Total	4:30 PM-5:30 PM	53	1037	13	0	21	748	79	0	93	11	72	0	25	7	104	0
Cars	4:30 PM-5:30 PM	52	995	12	0	15	722	78	0	91	10	72	0	21	7	102	0
HT	4:30 PM-5:30 PM	1	30	1	0	6	14	1	0	2	1	0	0	4	0	2	0
Buses	4:30 PM-5:30 PM	0	12	0	0	0	12	0	0	0	0	0	0	0	0	0	0
PCE Adjusted		**55**	**1109**	**15**	**0**	**33**	**788**	**81**	**0**	**97**	**13**	**72**	**0**	**33**	**7**	**108**	**0**
Morella Ave/Dehougne St																	
Total	5:00 PM-6:00 PM	10	3	6	0	3	5	16	0	17	22	6	2	6	15	11	0
Cars	5:00 PM-6:00 PM	10	3	6	0	3	5	16	0	17	22	6	2	6	15	11	0
HT	5:00 PM-6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Buses	5:00 PM-6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PCE Adjusted		**10**	**3**	**6**	**0**	**3**	**5**	**16**	**0**	**17**	**22**	**6**	**2**	**6**	**15**	**11**	**0**

- Average Daily Traffic Volumes

Prepared by NDS/ATD

VOLUME

Vantage Ave S/O Saticoy St

Day: Wednesday
Date: 3/7/2018

City: North Hollywood
Project #: CA18_5144_001

DAILY TOTALS	NB	SB	EB	WB	Total
	596	706	0	0	1,302

AM Period	NB		SB		EB	WB	TOTAL		PM Period	NB		SB		EB	WB	TOTAL	
00:00	1		1				2		12:00	8		7				15	
00:15	1		3				4		12:15	8		15				23	
00:30	1		1				2		12:30	7		9				16	
00:45	0	3	1	6			1	9	12:45	10	33	5	36			15	69
01:00	0		2				2		13:00	5		6				11	
01:15	1		1				2		13:15	12		7				19	
01:30	2		2				4		13:30	5		6				11	
01:45	0	3	1	6			1	9	13:45	5	27	7	26			12	53
02:00	0		1				1		14:00	9		10				19	
02:15	0		0				0		14:15	8		10				18	
02:30	0		1				1		14:30	7		9				16	
02:45	0		0	2			0	2	14:45	11	35	17	46			28	81
03:00	0		0				0		15:00	7		8				15	
03:15	0		2				2		15:15	5		7				12	
03:30	0		0				0		15:30	9		12				21	
03:45	1	1	1	3			2	4	15:45	9	30	18	45			27	75
04:00	0		0				0		16:00	14		14				28	
04:15	0		0				0		16:15	9		15				24	
04:30	2		0				2		16:30	12		11				23	
04:45	3	5	0				3	5	16:45	5	40	12	52			17	92
05:00	1		1				2		17:00	13		16				29	
05:15	1		0				1		17:15	7		15				22	
05:30	7		0				7		17:30	8		19				27	
05:45	3	12	0	1			3	13	17:45	9	37	19	69			28	106
06:00	5		2				7		18:00	10		11				21	
06:15	3		0				3		18:15	8		12				20	
06:30	16		2				18		18:30	6		17				23	
06:45	10	34	5	9			15	43	18:45	7	31	15	55			22	86
07:00	9		4				13		19:00	8		13				21	
07:15	18		10				28		19:15	8		11				19	
07:30	9		5				14		19:30	6		8				14	
07:45	14	50	6	25			20	75	19:45	7	29	13	45			20	74
08:00	13		5				18		20:00	4		7				11	
08:15	9		6				15		20:15	7		13				20	
08:30	9		7				16		20:30	6		17				23	
08:45	5	36	4	22			9	58	20:45	8	25	8	45			16	70
09:00	7		5				12		21:00	3		12				15	
09:15	7		6				13		21:15	9		8				17	
09:30	10		11				21		21:30	3		9				12	
09:45	16	40	15	37			31	77	21:45	11	26	7	36			18	62
10:00	13		13				26		22:00	3		12				15	
10:15	11		10				21		22:15	3		8				11	
10:30	8		8				16		22:30	4		10				14	
10:45	11	43	11	42			22	85	22:45	1	11	4	34			5	45
11:00	5		6				11		23:00	7		10				17	
11:15	5		5				10		23:15	8		5				13	
11:30	11		9				20		23:30	3		11				14	
11:45	4	25	12	32			16	57	23:45	2	20	6	32			8	52
TOTALS		252		185				**437**	**TOTALS**		344		521				**865**
SPLIT %		57.7%		42.3%				**33.6%**	**SPLIT %**		39.8%		60.2%				**66.4%**

DAILY TOTALS	NB	SB	EB	WB	Total
	596	706	0	0	1,302

AM Peak Hour	07:15	09:30			**09:30**	**PM Peak Hour**	15:45	17:00			**17:00**
AM Pk Volume	54	49			**99**	**PM Pk Volume**	44	69			**106**
Pk Hr Factor	0.750	0.817			**0.798**	**Pk Hr Factor**	0.786	0.908			**0.914**
7 - 9 Volume	86	47	0	0	**133**	**4 - 6 Volume**	77	121	0	0	**198**
7 - 9 Peak Hour	07:15	07:15			**07:15**	**4 - 6 Peak Hour**	16:00	17:00			**17:00**
7 - 9 Pk Volume	54	26	0	0	**80**	**4 - 6 Pk Volume**	40	69	0	0	**106**
Pk Hr Factor	0.750	0.650	0.000	0.000	**0.714**	**Pk Hr Factor**	0.714	0.908	0.000	0.000	**0.914**

CLASSIFICATION

Vantage Ave S/O Saticoy St

Day: Wednesday
Date: 3/7/2018

City: North Hollywood
Project #: CA18_5144_002n

North Bound

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
00:00 AM	0	31	3	0	2	0	0	0	0	0	0	0	0	**36**
00:15	0	26	3	0	2	0	0	0	0	0	0	0	0	**31**
00:30	0	28	2	0	2	0	0	0	0	0	0	0	0	**32**
00:45	0	18	3	0	0	0	0	0	0	0	0	0	0	**21**
01:00	0	16	2	0	1	0	0	0	0	0	0	0	0	**19**
01:15	0	14	1	0	0	0	0	0	0	0	0	0	0	**15**
01:30	0	11	5	0	1	0	0	0	0	0	0	0	0	**17**
01:45	0	8	1	0	0	0	0	0	0	0	0	0	0	**9**
02:00	0	8	1	0	2	0	0	0	0	0	0	0	0	**11**
02:15	0	8	0	0	0	0	0	0	0	0	0	0	0	**8**
02:30	0	7	0	0	0	0	0	0	0	0	0	0	0	**7**
02:45	0	10	1	0	0	0	0	0	0	0	0	0	0	**11**
03:00	0	8	1	0	0	0	0	0	0	0	0	0	0	**9**
03:15	0	7	1	0	0	0	0	0	0	0	0	0	0	**8**
03:30	0	8	1	0	0	0	0	0	0	0	0	0	0	**9**
03:45	0	6	0	0	0	0	0	0	0	0	0	0	0	**6**
04:00	0	8	1	0	0	0	0	0	0	0	0	0	0	**9**
04:15	0	10	1	0	0	0	0	0	0	0	0	0	0	**11**
04:30	0	8	2	0	0	0	0	0	0	0	0	0	0	**10**
04:45	0	11	2	0	1	0	0	0	0	0	0	0	0	**14**
05:00	0	17	3	0	2	0	0	0	0	0	0	0	0	**22**
05:15	0	18	2	1	1	0	0	0	0	0	0	0	0	**22**
05:30	0	19	4	0	1	0	0	0	0	0	0	0	0	**24**
05:45	0	28	5	0	2	1	0	0	0	0	0	0	0	**36**
06:00	0	34	8	0	1	0	0	0	0	0	0	0	0	**43**
06:15	0	36	7	0	4	1	0	1	1	0	0	0	0	**50**
06:30	0	49	14	0	6	1	0	0	0	0	0	0	0	**70**
06:45	0	56	12	0	3	0	0	0	0	0	0	0	0	**71**
07:00	0	65	11	0	5	0	1	0	0	0	0	0	0	**82**
07:15	0	80	13	0	11	0	0	0	0	0	0	0	0	**104**
07:30	1	130	23	0	7	0	0	0	0	0	0	0	0	**161**
07:45	0	137	34	0	9	1	0	0	0	1	0	0	0	**182**
08:00	0	116	15	0	9	1	1	0	0	0	0	0	0	**142**
08:15	0	80	13	2	7	1	0	0	0	0	0	0	0	**103**
08:30	0	70	17	0	9	0	0	0	1	0	0	0	0	**97**
08:45	0	76	15	0	7	0	0	0	0	0	0	0	0	**98**
09:00	0	74	17	1	7	1	1	1	0	0	0	0	0	**102**
09:15	0	83	14	0	13	0	0	0	0	1	0	0	0	**111**
09:30	0	77	12	0	13	0	0	0	0	0	0	0	0	**102**
09:45	0	89	11	0	6	0	0	0	1	0	0	0	0	**107**
10:00	0	87	16	1	5	1	0	0	0	0	0	0	0	**110**
10:15	0	83	15	0	4	0	0	0	0	0	0	0	0	**102**
10:30	0	91	22	0	9	0	0	0	0	0	0	0	0	**122**
10:45	0	93	20	0	7	0	0	0	0	0	0	0	0	**120**
11:00	0	110	21	1	8	0	0	0	0	0	0	0	0	**140**
11:15	0	112	19	0	9	1	0	0	0	0	0	0	0	**141**
11:30	0	81	16	1	5	0	0	1	0	0	0	0	0	**104**
11:45	0	100	18	1	12	1	0	0	0	0	0	0	0	**132**
12:00 PM	1	111	21	1	7	0	0	0	0	0	0	0	0	**141**
12:15	0	105	14	0	5	0	0	0	1	0	0	0	0	**125**
12:30	0	109	23	0	12	0	0	0	0	0	0	0	0	**144**
12:45	0	126	23	0	8	0	0	0	0	0	0	0	0	**157**
13:00	0	128	22	1	10	0	0	0	0	0	0	0	0	**161**
13:15	0	139	28	0	9	2	0	0	0	0	0	0	0	**178**
13:30	0	110	26	1	11	0	0	0	0	0	0	0	0	**148**
13:45	0	136	27	1	8	0	0	0	0	0	0	0	0	**172**
14:00	0	115	18	0	9	0	0	1	0	0	0	0	0	**143**
14:15	0	161	32	1	17	1	0	0	0	0	0	0	0	**212**
14:30	0	172	29	1	7	2	0	0	0	0	0	0	0	**211**
14:45	0	150	31	0	16	0	0	0	0	0	0	0	0	**197**
15:00	0	193	35	2	13	0	1	1	0	0	0	0	0	**245**
15:15	1	162	34	1	9	0	1	0	0	0	0	0	0	**208**
15:30	1	221	37	1	22	2	0	1	0	0	0	0	0	**285**
15:45	1	222	41	2	18	1	0	0	0	0	0	0	0	**285**
16:00	0	251	39	1	21	2	0	0	0	0	0	0	0	**314**
16:15	0	235	40	2	25	2	0	3	0	0	0	0	0	**307**
16:30	0	251	55	2	19	1	0	1	0	0	0	0	0	**329**
16:45	0	261	46	1	18	1	0	1	0	0	0	0	0	**328**
17:00	0	258	49	2	24	4	0	0	0	0	0	0	0	**337**
17:15	0	219	38	2	16	1	0	1	0	0	0	0	0	**277**
17:30	0	240	43	2	20	1	0	1	0	0	0	0	0	**307**
17:45	1	260	49	1	15	2	0	1	0	0	0	0	0	**329**
18:00	0	237	48	2	15	1	0	0	0	0	0	0	0	**303**
18:15	0	258	44	1	13	1	0	0	0	0	0	0	0	**317**
18:30	0	196	42	2	14	1	0	0	0	0	0	0	0	**255**
18:45	0	200	22	2	9	0	0	0	0	0	0	0	0	**233**
19:00	0	158	30	0	12	0	0	0	0	0	0	0	0	**200**
19:15	0	154	20	1	8	0	0	0	0	0	0	0	0	**183**
19:30	0	102	19	0	8	0	0	0	0	0	0	0	0	**129**
19:45	0	112	14	1	2	0	0	0	0	0	0	0	0	**129**
20:00	0	86	10	0	5	0	0	0	0	0	0	0	0	**101**
20:15	0	91	14	0	6	0	0	0	0	0	0	0	0	**111**
20:30	0	75	14	0	5	0	0	0	0	0	0	0	0	**94**
20:45	0	71	12	0	1	0	0	0	0	0	0	0	0	**84**
21:00	0	81	13	0	2	0	0	0	0	0	0	0	0	**96**
21:15	0	97	7	0	6	0	0	0	0	0	0	0	0	**110**
21:30	0	77	8	0	7	0	0	0	0	0	0	0	0	**92**
21:45	0	76	7	0	2	0	0	0	0	0	0	0	0	**85**
22:00	0	71	6	0	1	0	0	1	0	0	0	0	0	**79**
22:15	0	48	7	0	2	0	0	0	0	0	0	0	0	**57**
22:30	0	63	6	1	1	0	0	0	0	0	0	0	0	**71**
22:45	0	55	5	0	0	0	0	0	0	0	0	0	0	**60**
23:00	0	47	4	0	3	0	0	0	0	0	0	0	0	**54**
23:15	0	46	6	0	2	0	0	0	0	0	0	0	0	**54**
23:30	0	37	3	0	1	0	0	0	0	0	0	0	0	**41**
23:45	0	40	4	0	1	0	0	0	0	0	0	0	0	**45**
Totals	**6**	**9155**	**1593**	**43**	**658**	**35**	**5**	**15**	**4**	**2**				**11516**
% of Totals	0%	79%	14%	0%	6%	0%	0%	0%	0%	0%				100%

AM Volumes	1	2342	428	8	193	10	3	3	3	2	0	0	0	2993
% AM	0%	20%	4%	0%	2%	0%	0%	0%	0%	0%				26%
AM Peak Hour	06:45	07:15	07:15	08:15	08:45	05:45	06:15	05:30	05:30	07:00				07:15
Volume	1	463	85	3	40	3	1	1	1	1				589
PM Volumes	5	6813	1165	35	465	25	2	12	1	0	0	0	0	8523
% PM	0%	59%	10%	0%	4%	0%	0%	0%	0%					74%
PM Peak Hour	15:00	16:15	16:15	15:45	15:30	16:15	14:30	16:00	12:00					16:15
Volume	3	1005	190	7	86	8	2	5	1					1301

Directional Peak Periods	**AM 7-9**			**NOON 12-2**			**PM 4-6**			**Off Peak Volumes**		
All Classes	Volume		%	Volume		%	Volume		%	Volume		%
	969	⟷	8%	1226	⟷	11%	2528	⟷	22%	6793	⟷	59%

Classification Definitions

1 Motorcycles
2 Passenger Cars
3 2-Axle, 4-Tire Single Units
4 Buses
5 2-Axle, 6-Tire Single Units
6 3-Axle Single Units
7 > =4-Axle Single Units
8 <=4-Axle Single Trailers
9 5-Axle Single Trailers
10 >=6-Axle Single Trailers
11 <=5-Axle Multi-Trailers
12 6-Axle Multi-Trailers
13 >=7-Axle Multi-Trailers

Prepared by National Data & Surveying Services

CLASSIFICATION

Vantage Ave S/O Saticoy St

Day: Wednesday
Date: 3/7/2018

City: North Hollywood
Project #: CA18_5144_002s

South Bound

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
00:00 AM	0	21	3	0	2	0	0	0	0	0	0	0	0	26
00:15	0	15	1	0	0	0	0	0	0	0	0	0	0	16
00:30	0	13	2	0	0	0	0	0	0	0	0	0	0	15
00:45	0	6	1	0	0	0	0	0	0	0	0	0	0	7
01:00	0	6	1	0	0	0	0	0	0	0	0	0	0	7
01:15	0	11	0	0	0	0	0	0	0	0	0	0	0	11
01:30	0	10	2	0	0	0	0	0	0	0	0	0	0	12
01:45	0	4	0	0	0	0	0	0	0	0	0	0	0	4
02:00	0	10	1	0	0	0	0	0	0	0	0	0	0	11
02:15	0	13	1	0	0	0	0	0	0	0	0	0	0	14
02:30	0	8	1	0	0	0	0	0	0	0	0	0	0	9
02:45	0	4	1	0	0	0	0	0	0	0	0	0	0	5
03:00	0	7	0	0	0	0	0	0	0	0	0	0	0	7
03:15	0	9	3	0	2	0	0	1	0	0	0	0	0	15
03:30	0	5	1	0	0	0	0	0	0	0	0	0	0	6
03:45	0	10	2	0	2	0	0	0	0	0	0	0	0	14
04:00	0	9	2	0	0	0	0	0	0	0	0	0	0	11
04:15	0	17	4	0	0	0	0	0	0	0	0	0	0	21
04:30	0	11	1	0	0	0	0	0	0	0	0	0	0	12
04:45	0	28	5	0	2	0	0	0	0	0	0	0	0	35
05:00	0	24	5	0	1	0	0	0	0	0	0	0	0	30
05:15	1	59	5	0	2	0	0	0	0	0	0	0	0	67
05:30	0	63	11	0	1	0	0	0	0	0	0	0	0	75
05:45	0	90	16	1	4	0	1	0	0	0	0	0	0	112
06:00	0	106	14	0	7	2	0	0	1	0	0	0	0	130
06:15	0	100	23	2	10	0	0	0	0	0	0	0	0	135
06:30	0	142	20	1	10	3	0	1	0	0	2	0	0	179
06:45	1	155	30	1	16	0	0	1	0	0	0	0	0	204
07:00	0	176	26	0	13	0	0	1	2	0	0	0	0	218
07:15	0	184	35	2	8	0	0	2	0	0	0	0	0	231
07:30	0	209	33	2	10	0	0	1	0	0	1	0	0	256
07:45	0	239	38	2	14	0	0	2	1	0	0	0	0	296
08:00	0	220	44	1	6	0	0	2	0	0	1	0	0	274
08:15	0	183	34	0	8	0	0	1	0	0	1	0	0	227
08:30	0	174	28	2	10	0	0	4	0	0	3	0	0	221
08:45	0	142	17	0	12	1	0	2	0	0	0	0	0	174
09:00	0	123	26	1	4	0	0	1	0	0	0	0	0	155
09:15	0	113	21	2	7	1	0	0	0	0	0	0	0	144
09:30	0	108	17	1	5	1	0	0	0	0	0	0	0	132
09:45	0	110	16	0	7	1	0	0	0	0	0	0	0	134
10:00	0	91	15	1	8	0	1	0	0	0	0	0	0	116
10:15	0	122	18	1	6	0	0	0	0	0	0	0	0	147
10:30	0	112	18	1	5	0	0	0	0	0	0	0	0	136
10:45	0	105	13	0	5	0	0	1	0	0	0	0	0	124
11:00	0	107	15	1	8	1	0	0	0	0	0	0	0	132
11:15	0	115	17	0	11	0	0	3	0	0	0	0	0	146
11:30	0	116	14	0	7	0	0	1	0	0	0	0	0	138
11:45	0	127	19	1	10	0	0	2	0	0	0	0	0	159
12:00 PM	0	117	12	0	8	0	0	0	0	0	0	0	0	137
12:15	0	132	22	1	7	0	0	1	0	0	1	0	0	164
12:30	0	126	23	1	4	1	0	0	0	0	0	0	0	155
12:45	0	135	17	0	5	0	0	1	0	0	0	0	0	158
13:00	0	132	16	1	10	0	0	1	0	0	0	0	0	160
13:15	0	107	14	0	5	1	0	0	0	0	0	0	0	127
13:30	1	117	17	0	6	1	0	2	0	0	0	0	0	144
13:45	1	126	24	1	5	0	0	0	2	0	0	0	0	159
14:00	0	125	17	1	9	0	0	2	1	0	0	0	0	155
14:15	0	150	17	0	7	1	0	1	0	0	0	0	0	176
14:30	0	151	22	1	12	0	0	1	0	0	0	0	0	187
14:45	0	132	16	0	8	0	0	0	0	0	0	0	0	156
15:00	0	133	16	1	7	0	0	1	0	0	0	0	0	158
15:15	0	157	25	0	6	0	0	1	0	0	0	0	0	189
15:30	0	138	15	1	7	0	0	0	0	0	0	0	0	161
15:45	0	154	17	0	10	0	0	0	0	0	0	0	0	181
16:00	0	120	17	1	3	1	0	1	0	0	0	0	0	143
16:15	0	145	17	1	5	0	0	0	1	0	0	0	0	169
16:30	0	139	16	0	6	0	0	2	0	0	0	0	0	163
16:45	0	126	18	1	4	1	0	1	0	0	0	0	0	151
17:00	0	163	19	1	5	0	0	2	0	0	0	0	0	190
17:15	0	138	20	0	4	0	1	0	0	0	0	0	0	163
17:30	0	130	22	1	6	0	0	0	0	0	0	0	0	159
17:45	0	155	17	0	8	0	0	0	0	0	0	0	0	180
18:00	0	125	17	1	7	0	0	0	0	0	0	0	0	150
18:15	0	129	14	1	3	0	0	0	0	0	0	0	0	147
18:30	0	120	17	0	4	0	0	0	0	0	0	0	0	141
18:45	0	114	15	0	7	0	0	0	0	0	0	0	0	136
19:00	0	98	8	1	5	0	0	0	0	0	0	0	0	112
19:15	0	91	12	0	2	0	0	0	0	0	0	0	0	105
19:30	0	103	13	0	3	0	0	0	1	0	0	0	0	120
19:45	0	84	11	0	2	0	0	0	0	0	0	0	0	97
20:00	0	73	10	0	1	0	0	0	0	0	0	0	0	84
20:15	0	73	10	0	1	0	0	0	0	0	0	0	0	84
20:30	0	68	11	0	4	0	0	0	0	0	0	0	0	83
20:45	0	72	6	0	4	0	0	0	0	0	0	0	0	82
21:00	0	54	7	0	2	0	0	0	0	0	0	0	0	63
21:15	1	58	5	0	2	0	0	0	0	0	0	0	0	66
21:30	0	52	8	0	1	0	0	0	0	0	0	0	0	61
21:45	0	55	5	0	2	0	0	0	0	0	0	0	0	62
22:00	0	39	3	0	1	1	0	0	0	0	0	0	0	44
22:15	0	37	2	0	1	0	0	0	0	0	0	0	0	40
22:30	0	38	3	0	0	0	0	0	0	0	0	0	0	41
22:45	0	31	3	0	1	0	0	0	0	0	0	0	0	35
23:00	0	33	4	0	2	0	0	0	0	0	0	0	0	39
23:15	0	29	3	0	1	0	0	0	0	0	0	0	0	33
23:30	0	19	2	0	0	0	0	0	0	0	0	0	0	21
23:45	0	20	2	0	0	0	0	0	0	0	0	0	0	22
Totals	5	8695	1247	39	436	17	3	43	9		9			10503
% of Totals	0%	83%	12%	0%	4%	0%	0%	0%	0%		0%			100%

AM Volumes	2	3832	620	23	223	10	2	26	4	0	8	0	0	4750
% AM	0%	36%	6%	0%	2%	0%	0%	0%	0%		0%			45%
AM Peak Hour	04:30	07:15	07:15	07:15	06:15	05:45	05:00	07:45	07:00		07:45			07:15
Volume	1	852	150	7	49	5	1	9	3		5			1057
PM Volumes	3	4863	627	16	213	7	1	17	5	0	1	0	0	5753
% PM	0%	46%	6%	0%	2%	0%	0%	0%	0%		0%			55%
PM Peak Hour	13:00	17:00	13:45	12:15	14:00	12:30	16:30	13:30	13:15		12:00			17:00
Volume	2	586	80	3	36	2	1	5	3		1			692

Directional Peak Periods **All Classes**	**AM 7-9**			**NOON 12-2**			**PM 4-6**			**Off Peak Volumes**		
	Volume		%	Volume		%	Volume		%	Volume		%
	1897	⟷	18%	1204	⟷	11%	1318	⟷	13%	6084	⟷	58%

Classification Definitions

1 Motorcycles
2 Passenger Cars
3 2-Axle, 4-Tire Single Units
4 Buses
5 2-Axle, 6-Tire Single Units
6 3-Axle Single Units
7 > =4-Axle Single Units
8 <=4-Axle Single Trailers
9 5-Axle Single Trailers
10 >=6-Axle Single Trailers
11 <=5-Axle Multi-Trailers
12 6-Axle Multi-Trailers
13 >=7-Axle Multi-Trailers

CLASSIFICATION

Vantage Ave S/O Saticoy St

Day: Wednesday
Date: 3/7/2018

City: North Hollywood
Project #: CA18_5144_002

Summary

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
00:00 AM	0	52	6	0	4	0	0	0	0	0	0	0	0	**62**
00:15	0	41	4	0	2	0	0	0	0	0	0	0	0	**47**
00:30	0	41	4	0	2	0	0	0	0	0	0	0	0	**47**
00:45	0	24	4	0	0	0	0	0	0	0	0	0	0	**28**
01:00	0	22	3	0	1	0	0	0	0	0	0	0	0	**26**
01:15	0	25	1	0	0	0	0	0	0	0	0	0	0	**26**
01:30	0	21	7	0	1	0	0	0	0	0	0	0	0	**29**
01:45	0	12	1	0	0	0	0	0	0	0	0	0	0	**13**
02:00	0	18	2	0	2	0	0	0	0	0	0	0	0	**22**
02:15	0	21	1	0	0	0	0	0	0	0	0	0	0	**22**
02:30	0	15	1	0	0	0	0	0	0	0	0	0	0	**16**
02:45	0	14	2	0	0	0	0	0	0	0	0	0	0	**16**
03:00	0	15	1	0	0	0	0	0	0	0	0	0	0	**16**
03:15	0	16	4	0	2	0	0	1	0	0	0	0	0	**23**
03:30	0	13	2	0	0	0	0	0	0	0	0	0	0	**15**
03:45	0	16	2	0	2	0	0	0	0	0	0	0	0	**20**
04:00	0	17	3	0	0	0	0	0	0	0	0	0	0	**20**
04:15	0	27	5	0	0	0	0	0	0	0	0	0	0	**32**
04:30	0	19	3	0	0	0	0	0	0	0	0	0	0	**22**
04:45	0	39	7	0	3	0	0	0	0	0	0	0	0	**49**
05:00	0	41	8	0	3	0	0	0	0	0	0	0	0	**52**
05:15	1	77	7	1	3	0	0	0	0	0	0	0	0	**89**
05:30	0	82	15	0	2	0	0	0	0	0	0	0	0	**99**
05:45	0	118	21	1	6	1	1	0	0	0	0	0	0	**148**
06:00	0	140	22	0	8	2	0	0	1	0	0	0	0	**173**
06:15	0	136	30	2	14	1	0	1	1	0	0	0	0	**185**
06:30	0	191	34	1	16	4	0	1	0	0	2	0	0	**249**
06:45	1	211	42	1	19	0	0	1	0	0	0	0	0	**275**
07:00	0	241	37	0	18	0	1	1	2	0	0	0	0	**300**
07:15	0	264	48	2	19	0	0	2	0	0	0	0	0	**335**
07:30	1	339	56	2	17	0	0	1	0	0	1	0	0	**417**
07:45	0	376	72	2	23	1	0	2	1	1	0	0	0	**478**
08:00	0	336	59	1	15	1	1	2	0	0	1	0	0	**416**
08:15	0	263	47	2	15	1	0	1	0	0	1	0	0	**330**
08:30	0	244	45	2	19	0	0	4	1	0	3	0	0	**318**
08:45	0	218	32	0	19	1	0	2	0	0	0	0	0	**272**
09:00	0	197	43	2	11	1	1	2	0	0	0	0	0	**257**
09:15	0	196	35	2	20	1	0	0	0	1	0	0	0	**255**
09:30	0	185	29	1	18	1	0	0	0	0	0	0	0	**234**
09:45	0	199	27	0	13	1	0	0	1	0	0	0	0	**241**
10:00	0	178	31	2	13	1	1	0	0	0	0	0	0	**226**
10:15	0	205	33	1	10	0	0	0	0	0	0	0	0	**249**
10:30	0	203	40	1	14	0	0	0	0	0	0	0	0	**258**
10:45	0	198	33	0	12	0	0	1	0	0	0	0	0	**244**
11:00	0	217	36	2	16	1	0	0	0	0	0	0	0	**272**
11:15	0	227	36	0	20	1	0	3	0	0	0	0	0	**287**
11:30	0	197	30	1	12	0	0	2	0	0	0	0	0	**242**
11:45	0	227	37	2	22	1	0	2	0	0	0	0	0	**291**
12:00 PM	1	228	33	1	15	0	0	0	0	0	0	0	0	**278**
12:15	0	237	36	1	12	0	0	1	1	0	1	0	0	**289**
12:30	0	235	46	1	16	1	0	0	0	0	0	0	0	**299**
12:45	0	261	40	0	13	0	0	1	0	0	0	0	0	**315**
13:00	0	260	38	2	20	0	0	1	0	0	0	0	0	**321**
13:15	0	246	42	0	14	3	0	0	0	0	0	0	0	**305**
13:30	1	227	43	1	17	1	0	2	0	0	0	0	0	**292**
13:45	1	262	51	2	13	0	0	0	2	0	0	0	0	**331**
14:00	0	240	35	1	18	0	0	3	1	0	0	0	0	**298**
14:15	0	311	49	1	24	2	0	1	0	0	0	0	0	**388**
14:30	0	323	51	2	19	2	0	1	0	0	0	0	0	**398**
14:45	0	282	47	0	24	0	0	0	0	0	0	0	0	**353**
15:00	0	326	51	3	20	0	1	2	0	0	0	0	0	**403**
15:15	1	319	59	1	15	0	1	1	0	0	0	0	0	**397**
15:30	1	359	52	2	29	2	0	1	0	0	0	0	0	**446**
15:45	1	376	58	2	28	1	0	0	0	0	0	0	0	**466**
16:00	0	371	56	2	24	3	0	1	0	0	0	0	0	**457**
16:15	0	380	57	3	30	2	0	3	1	0	0	0	0	**476**
16:30	0	390	71	2	25	1	0	3	0	0	0	0	0	**492**
16:45	0	387	64	2	22	2	0	2	0	0	0	0	0	**479**
17:00	0	421	68	3	29	4	0	2	0	0	0	0	0	**527**
17:15	0	357	58	2	20	1	1	1	0	0	0	0	0	**440**
17:30	0	370	65	3	26	1	0	1	0	0	0	0	0	**466**
17:45	1	415	66	1	23	2	0	1	0	0	0	0	0	**509**
18:00	0	362	65	3	22	1	0	0	0	0	0	0	0	**453**
18:15	0	387	58	2	16	1	0	0	0	0	0	0	0	**464**
18:30	0	316	59	2	18	1	0	0	0	0	0	0	0	**396**
18:45	0	314	37	2	16	0	0	0	0	0	0	0	0	**369**
19:00	0	256	38	1	17	0	0	0	0	0	0	0	0	**312**
19:15	0	245	32	1	10	0	0	0	0	0	0	0	0	**288**
19:30	0	205	32	0	11	0	0	0	1	0	0	0	0	**249**
19:45	0	196	25	1	4	0	0	0	0	0	0	0	0	**226**
20:00	0	159	20	0	6	0	0	0	0	0	0	0	0	**185**
20:15	0	164	24	0	7	0	0	0	0	0	0	0	0	**195**
20:30	0	143	25	0	9	0	0	0	0	0	0	0	0	**177**
20:45	0	143	18	0	5	0	0	0	0	0	0	0	0	**166**
21:00	0	135	20	0	4	0	0	0	0	0	0	0	0	**159**
21:15	1	155	12	0	8	0	0	0	0	0	0	0	0	**176**
21:30	0	129	16	0	8	0	0	0	0	0	0	0	0	**153**
21:45	0	131	12	0	4	0	0	0	0	0	0	0	0	**147**
22:00	0	110	9	0	2	1	0	1	0	0	0	0	0	**123**
22:15	0	85	9	0	3	0	0	0	0	0	0	0	0	**97**
22:30	0	101	9	1	1	0	0	0	0	0	0	0	0	**112**
22:45	0	86	8	0	1	0	0	0	0	0	0	0	0	**95**
23:00	0	80	8	0	5	0	0	0	0	0	0	0	0	**93**
23:15	0	75	9	0	3	0	0	0	0	0	0	0	0	**87**
23:30	0	56	5	0	1	0	0	0	0	0	0	0	0	**62**
23:45	0	60	6	0	1	0	0	0	0	0	0	0	0	**67**
Totals	**11**	**17850**	**2840**	**82**	**1094**	**52**	**8**	**58**	**13**	**2**	**9**			**22019**
% of Totals	0%	81%	13%	0%	5%	0%	0%	0%	0%	0%	0%			100%

AM Volumes	3	6174	1048	31	416	20	5	29	7	2	8	0	0	7743
% AM	0%	28%	5%	0%	2%	0%	0%	0%	0%	0%	0%			35%
AM Peak Hour	06:45	07:15	07:15	07:15	07:00	05:45	05:00	07:45	06:15	07:00	07:45			07:15
Volume	2	1315	235	7	77	8	1	9	3	1	5			1646
PM Volumes	8	11676	1792	51	678	32	3	29	6	0	1	0	0	14276
% PM	0%	53%	8%	0%	3%	0%	0%	0%	0%		0%			65%
PM Peak Hour	15:00	16:15	16:30	16:15	15:30	16:15	14:30	16:15	13:15		12:00			16:15
Volume	3	1578	261	10	111	9	2	10	3		1			1974

Directional Peak Periods	**AM 7-9**			**NOON 12-2**			**PM 4-6**			**Off Peak Volumes**		
All Classes	Volume		%	Volume		%	Volume		%	Volume		%
	2866	⟷	13%	2430	⟷	11%	3846	⟷	17%	12877	⟷	58%

Classification Definitions

1	Motorcycles	**4**	Buses	**7**	> =4-Axle Single Units	**10**	>=6-Axle Single Trailers	**13**	>=7-Axle Multi-Trailers
2	Passenger Cars	**5**	2-Axle, 6-Tire Single Units	**8**	<=4-Axle Single Trailers	**11**	<=5-Axle Multi-Trailers		
3	2-Axle, 4-Tire Single Units	**6**	3-Axle Single Units	**9**	5-Axle Single Trailers	**12**	6-Axle Multi-Trailers		

Prepared by National Data & Surveying Services

CLASSIFICATION

Vantage Ave S/O Saticoy St

Day: Wednesday
Date: 3/7/2018

City: North Hollywood
Project #: CA18_5144_002n

North Bound

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
00:00 AM	0	103	11	0	6	0	0	0	0	0	0	0	0	**120**
01:00	0	49	9	0	2	0	0	0	0	0	0	0	0	**60**
02:00	0	33	2	0	2	0	0	0	0	0	0	0	0	**37**
03:00	0	29	3	0	0	0	0	0	0	0	0	0	0	**32**
04:00	0	37	6	0	1	0	0	0	0	0	0	0	0	**44**
05:00	0	82	14	1	6	1	0	0	0	0	0	0	0	**104**
06:00	0	175	41	0	14	2	0	1	1	0	0	0	0	**234**
07:00	1	412	81	0	32	1	1	0	0	1	0	0	0	**529**
08:00	0	342	60	2	32	2	1	0	1	0	0	0	0	**440**
09:00	0	323	54	1	39	1	1	1	1	1	0	0	0	**422**
10:00	0	354	73	1	25	1	0	0	0	0	0	0	0	**454**
11:00	0	403	74	3	34	2	0	1	0	0	0	0	0	**517**
12:00 PM	1	451	81	1	32	0	0	0	1	0	0	0	0	**567**
13:00	0	513	103	3	38	2	0	0	0	0	0	0	0	**659**
14:00	0	598	110	2	49	3	0	1	0	0	0	0	0	**763**
15:00	3	798	147	6	62	3	2	2	0	0	0	0	0	**1023**
16:00	0	998	180	6	83	6	0	5	0	0	0	0	0	**1278**
17:00	1	977	179	7	75	8	0	3	0	0	0	0	0	**1250**
18:00	0	891	156	7	51	3	0	0	0	0	0	0	0	**1108**
19:00	0	526	83	2	30	0	0	0	0	0	0	0	0	**641**
20:00	0	323	50	0	17	0	0	0	0	0	0	0	0	**390**
21:00	0	331	35	0	17	0	0	0	0	0	0	0	0	**383**
22:00	0	237	24	1	4	0	0	1	0	0	0	0	0	**267**
23:00	0	170	17	0	7	0	0	0	0	0	0	0	0	**194**
Totals	6	9155	1593	43	658	35	5	15	4	2				11516
% of Totals	0%	79%	14%	0%	6%	0%	0%	0%	0%	0%				100%

AM Volumes	1	2342	428	8	193	10	3	3	3	2	0	0	0	2993
% AM	0%	20%	4%	0%	2%	0%	0%	0%	0%	0%				26%
AM Peak Hour	07:00	07:00	07:00	11:00	09:00	06:00	07:00	06:00	06:00	07:00				07:00
Volume	1	412	81	3	39	2	1	1	1	1				529
PM Volumes	5	6813	1165	35	465	25	2	12	1	0	0	0	0	8523
% PM	0%	59%	10%	0%	4%	0%	0%	0%	0%					74%
PM Peak Hour	15:00	16:00	16:00	17:00	16:00	17:00	15:00	16:00	12:00					16:00
Volume	3	998	180	7	83	8	2	5	1					1278

Directional Peak Periods	**AM 7-9**			**NOON 12-2**			**PM 4-6**			**Off Peak Volumes**		
All Classes	Volume		%	Volume		%	Volume		%	Volume		%
	969	⟷	8%	1226	⟷	11%	2528	⟷	22%	6793	⟷	59%

Classification Definitions

1	Motorcycles	**4**	Buses	**7**	> =4-Axle Single Units	**10**	>=6-Axle Single Trailers	**13**	>=7-Axle Multi-Trailers
2	Passenger Cars	**5**	2-Axle, 6-Tire Single Units	**8**	<=4-Axle Single Trailers	**11**	<=5-Axle Multi-Trailers		
3	2-Axle, 4-Tire Single Units	**6**	3-Axle Single Units	**9**	5-Axle Single Trailers	**12**	6-Axle Multi-Trailers		

CLASSIFICATION

Vantage Ave S/O Saticoy St

Day: Wednesday
Date: 3/7/2018

City: North Hollywood
Project #: CA18_5144_002s

South Bound

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
00:00 AM	0	55	7	0	2	0	0	0	0	0	0	0	0	**64**
01:00	0	31	3	0	0	0	0	0	0	0	0	0	0	**34**
02:00	0	35	4	0	0	0	0	0	0	0	0	0	0	**39**
03:00	0	31	6	0	4	0	0	1	0	0	0	0	0	**42**
04:00	0	65	12	0	2	0	0	0	0	0	0	0	0	**79**
05:00	1	236	37	1	8	0	1	0	0	0	0	0	0	**284**
06:00	1	503	87	4	43	5	0	2	1	0	2	0	0	**648**
07:00	0	808	132	6	45	0	0	6	3	0	1	0	0	**1001**
08:00	0	719	123	3	36	1	0	9	0	0	5	0	0	**896**
09:00	0	454	80	4	23	3	0	1	0	0	0	0	0	**565**
10:00	0	430	64	3	24	0	1	1	0	0	0	0	0	**523**
11:00	0	465	65	2	36	1	0	6	0	0	0	0	0	**575**
12:00 PM	0	510	74	2	24	1	0	2	0	0	1	0	0	**614**
13:00	2	482	71	2	26	2	0	3	2	0	0	0	0	**590**
14:00	0	558	72	2	36	1	0	4	1	0	0	0	0	**674**
15:00	0	582	73	2	30	0	0	2	0	0	0	0	0	**689**
16:00	0	530	68	3	18	2	0	4	1	0	0	0	0	**626**
17:00	0	586	78	2	23	0	1	2	0	0	0	0	0	**692**
18:00	0	488	63	2	21	0	0	0	0	0	0	0	0	**574**
19:00	0	376	44	1	12	0	0	0	1	0	0	0	0	**434**
20:00	0	286	37	0	10	0	0	0	0	0	0	0	0	**333**
21:00	1	219	25	0	7	0	0	0	0	0	0	0	0	**252**
22:00	0	145	11	0	3	1	0	0	0	0	0	0	0	**160**
23:00	0	101	11	0	3	0	0	0	0	0	0	0	0	**115**
Totals	**5**	**8695**	**1247**	**39**	**436**	**17**	**3**	**43**	**9**		**9**			**10503**
% of Totals	0%	83%	12%	0%	4%	0%	0%	0%	0%		0%			100%

	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
AM Volumes	2	3832	620	23	223	10	2	26	4	0	8	0	0	4750
% AM	0%	36%	6%	0%	2%	0%	0%	0%	0%		0%			45%
AM Peak Hour	05:00	07:00	07:00	07:00	07:00	06:00	05:00	08:00	07:00		08:00			07:00
Volume	1	808	132	6	45	5	1	9	3		5			1001
PM Volumes	3	4863	627	16	213	7	1	17	5	0	1	0	0	5753
% PM	0%	46%	6%	0%	2%	0%	0%	0%	0%		0%			55%
PM Peak Hour	13:00	17:00	17:00	16:00	14:00	13:00	17:00	14:00	13:00		12:00			17:00
Volume	2	586	78	3	36	2	1	4	2		1			692

Directional Peak Periods All Classes	**AM 7-9**			**NOON 12-2**			**PM 4-6**			**Off Peak Volumes**		
	Volume		%	Volume		%	Volume		%	Volume		%
	1897	⟷	18%	1204	⟷	11%	1318	⟷	13%	6084	⟷	58%

Classification Definitions

1	Motorcycles	**4**	Buses	**7**	> =4-Axle Single Units	**10**	>=6-Axle Single Trailers	**13**	>=7-Axle Multi-Trailers
2	Passenger Cars	**5**	2-Axle, 6-Tire Single Units	**8**	<=4-Axle Single Trailers	**11**	<=5-Axle Multi-Trailers		
3	2-Axle, 4-Tire Single Units	**6**	3-Axle Single Units	**9**	5-Axle Single Trailers	**12**	6-Axle Multi-Trailers		

CLASSIFICATION

Vantage Ave S/O Saticoy St

Day: Wednesday
Date: 3/7/2018

City: North Hollywood
Project #: CA18_5144_002

Summary

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
00:00 AM	0	158	18	0	8	0	0	0	0	0	0	0	0	**184**
01:00	0	80	12	0	2	0	0	0	0	0	0	0	0	**94**
02:00	0	68	6	0	2	0	0	0	0	0	0	0	0	**76**
03:00	0	60	9	0	4	0	0	1	0	0	0	0	0	**74**
04:00	0	102	18	0	3	0	0	0	0	0	0	0	0	**123**
05:00	1	318	51	2	14	1	1	0	0	0	0	0	0	**388**
06:00	1	678	128	4	57	7	0	3	2	0	2	0	0	**882**
07:00	1	1220	213	6	77	1	1	6	3	1	1	0	0	**1530**
08:00	0	1061	183	5	68	3	1	9	1	0	5	0	0	**1336**
09:00	0	777	134	5	62	4	1	2	1	1	0	0	0	**987**
10:00	0	784	137	4	49	1	1	1	0	0	0	0	0	**977**
11:00	0	868	139	5	70	3	0	7	0	0	0	0	0	**1092**
12:00 PM	1	961	155	3	56	1	0	2	1	0	1	0	0	**1181**
13:00	2	995	174	5	64	4	0	3	2	0	0	0	0	**1249**
14:00	0	1156	182	4	85	4	0	5	1	0	0	0	0	**1437**
15:00	3	1380	220	8	92	3	2	4	0	0	0	0	0	**1712**
16:00	0	1528	248	9	101	8	0	9	1	0	0	0	0	**1904**
17:00	1	1563	257	9	98	8	1	5	0	0	0	0	0	**1942**
18:00	0	1379	219	9	72	3	0	0	0	0	0	0	0	**1682**
19:00	0	902	127	3	42	0	0	0	1	0	0	0	0	**1075**
20:00	0	609	87	0	27	0	0	0	0	0	0	0	0	**723**
21:00	1	550	60	0	24	0	0	0	0	0	0	0	0	**635**
22:00	0	382	35	1	7	1	0	1	0	0	0	0	0	**427**
23:00	0	271	28	0	10	0	0	0	0	0	0	0	0	**309**
Totals	**11**	**17850**	**2840**	**82**	**1094**	**52**	**8**	**58**	**13**	**2**	**9**			**22019**
% of Totals	0%	81%	13%	0%	5%	0%	0%	0%	0%	0%	0%			100%

AM Volumes	3	6174	1048	31	416	20	5	29	7	2	8	0	0	7743
% AM	0%	28%	5%	0%	2%	0%	0%	0%	0%	0%	0%			35%
AM Peak Hour	05:00	07:00	07:00	07:00	07:00	06:00	05:00	08:00	07:00	07:00	08:00			07:00
Volume	1	1220	213	6	77	7	1	9	3	1	5			1530
PM Volumes	8	11676	1792	51	678	32	3	29	6	0	1	0	0	14276
% PM	0%	53%	8%	0%	3%	0%	0%	0%	0%		0%			65%
PM Peak Hour	15:00	17:00	17:00	16:00	16:00	16:00	15:00	16:00	13:00		12:00			17:00
Volume	3	1563	257	9	101	8	2	9	2		1			1942

Directional Peak Periods All Classes	**AM 7-9**		**NOON 12-2**		**PM 4-6**		**Off Peak Volumes**	
	Volume	%	Volume	%	Volume	%	Volume	%
	2866 ⟷	13%	2430 ⟷	11%	3846 ⟷	17%	12877 ⟷	58%

Classification Definitions

1	Motorcycles	**4**	Buses	**7**	> =4-Axle Single Units	**10**	>=6-Axle Single Trailers	**13**	>=7-Axle Multi-Trailers
2	Passenger Cars	**5**	2-Axle, 6-Tire Single Units	**8**	<=4-Axle Single Trailers	**11**	<=5-Axle Multi-Trailers		
3	2-Axle, 4-Tire Single Units	**6**	3-Axle Single Units	**9**	5-Axle Single Trailers	**12**	6-Axle Multi-Trailers		

Prepared by National Data & Surveying Services

VOLUME

Vantage Ave S/O Saticoy St

Day: Wednesday
Date: 3/7/2018

City: North Hollywood
Project #: CA18_5144_002

DAILY TOTALS	NB	SB	EB	WB	Total
	11,516	10,503	0	0	22,019

AM Period	NB		SB		EB	WB	TOTAL		PM Period	NB		SB		EB	WB	TOTAL	
00:00	36		26		0	0	62		12:00	141		137		0	0	278	
00:15	31		16		0	0	47		12:15	125		164		0	0	289	
00:30	32		15		0	0	47		12:30	144		155		0	0	299	
00:45	21	120	7	64	0	0	28	184	12:45	157	567	158	614	0	0	315	1181
01:00	19		7		0	0	26		13:00	161		160		0	0	321	
01:15	15		11		0	0	26		13:15	178		127		0	0	305	
01:30	17		12		0	0	29		13:30	148		144		0	0	292	
01:45	9	60	4	34	0	0	13	94	13:45	172	659	159	590	0	0	331	1249
02:00	11		11		0	0	22		14:00	143		155		0	0	298	
02:15	8		14		0	0	22		14:15	212		176		0	0	388	
02:30	7		9		0	0	16		14:30	211		187		0	0	398	
02:45	11	37	5	39	0	0	16	76	14:45	197	763	156	674	0	0	353	1437
03:00	9		7		0	0	16		15:00	245		158		0	0	403	
03:15	8		15		0	0	23		15:15	208		189		0	0	397	
03:30	9		6		0	0	15		15:30	285		161		0	0	446	
03:45	6	32	14	42	0	0	20	74	15:45	285	1023	181	689	0	0	466	1712
04:00	9		11		0	0	20		16:00	314		143		0	0	457	
04:15	11		21		0	0	32		16:15	307		169		0	0	476	
04:30	10		12		0	0	22		16:30	329		163		0	0	492	
04:45	14	44	35	79	0	0	49	123	16:45	328	1278	151	626	0	0	479	1904
05:00	22		30		0	0	52		17:00	337		190		0	0	527	
05:15	22		67		0	0	89		17:15	277		163		0	0	440	
05:30	24		75		0	0	99		17:30	307		159		0	0	466	
05:45	36	104	112	284	0	0	148	388	17:45	329	1250	180	692	0	0	509	1942
06:00	43		130		0	0	173		18:00	303		150		0	0	453	
06:15	50		135		0	0	185		18:15	317		147		0	0	464	
06:30	70		179		0	0	249		18:30	255		141		0	0	396	
06:45	71	234	204	648	0	0	275	882	18:45	233	1108	136	574	0	0	369	1682
07:00	82		218		0	0	300		19:00	200		112		0	0	312	
07:15	104		231		0	0	335		19:15	183		105		0	0	288	
07:30	161		256		0	0	417		19:30	129		120		0	0	249	
07:45	182	529	296	1001	0	0	478	1530	19:45	129	641	97	434	0	0	226	1075
08:00	142		274		0	0	416		20:00	101		84		0	0	185	
08:15	103		227		0	0	330		20:15	111		84		0	0	195	
08:30	97		221		0	0	318		20:30	94		83		0	0	177	
08:45	98	440	174	896	0	0	272	1336	20:45	84	390	82	333	0	0	166	723
09:00	102		155		0	0	257		21:00	96		63		0	0	159	
09:15	111		144		0	0	255		21:15	110		66		0	0	176	
09:30	102		132		0	0	234		21:30	92		61		0	0	153	
09:45	107	422	134	565	0	0	241	987	21:45	85	383	62	252	0	0	147	635
10:00	110		116		0	0	226		22:00	79		44		0	0	123	
10:15	102		147		0	0	249		22:15	57		40		0	0	97	
10:30	122		136		0	0	258		22:30	71		41		0	0	112	
10:45	120	454	124	523	0	0	244	977	22:45	60	267	35	160	0	0	95	427
11:00	140		132		0	0	272		23:00	54		39		0	0	93	
11:15	141		146		0	0	287		23:15	54		33		0	0	87	
11:30	104		138		0	0	242		23:30	41		21		0	0	62	
11:45	132	517	159	575	0	0	291	1092	23:45	45	194	22	115	0	0	67	309
TOTALS		2993		4750				**7743**	**TOTALS**		8523		5753				**14276**
SPLIT %		38.7%		61.3%				**35.2%**	**SPLIT %**		59.7%		40.3%				**64.8%**

DAILY TOTALS	NB	SB	EB	WB	Total
	11,516	10,503	0	0	22,019

AM Peak Hour	07:15	07:15			**07:15**	**PM Peak Hour**	16:15	17:00			**16:15**
AM Pk Volume	589	1057			**1646**	**PM Pk Volume**	1301	692			**1974**
Pk Hr Factor	0.809	0.893			**0.861**	**Pk Hr Factor**	0.965	0.911			**0.936**
7 - 9 Volume	969	1897	0	0	**2866**	**4 - 6 Volume**	2528	1318	0	0	**3846**
7 - 9 Peak Hour	07:15	07:15			**07:15**	**4 - 6 Peak Hour**	16:15	17:00			**16:15**
7 - 9 Pk Volume	589	1057	0	0	**1646**	**4 - 6 Pk Volume**	1301	692	0	0	**1974**
Pk Hr Factor	0.809	0.893	0.000	0.000	**0.861**	**Pk Hr Factor**	0.965	0.911	0.000	0.000	**0.936**

Prepared by NDS/ATD

VOLUME

Runnymede St Bet. Laurel Canyon Blvd & Radford Ave

Day: Wednesday
Date: 3/7/2018

City: North Hollywood
Project #: CA18_5144_003

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	881	1,032	1,913

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00			3		1		4		12:00			7		13		20	
00:15			1		1		2		12:15			7		8		15	
00:30			3		2		5		12:30			14		20		34	
00:45			1	8	1	5	2	13	12:45			10	38	19	60	29	98
01:00			3		2		5		13:00			12		14		26	
01:15			0		0		0		13:15			15		10		25	
01:30			0		2		2		13:30			14		16		30	
01:45			1	4	1	5	2	9	13:45			13	54	14	54	27	108
02:00			1		0		1		14:00			10		8		18	
02:15			1		1		2		14:15			14		18		32	
02:30			1		1		2		14:30			20		19		39	
02:45			1	4	1	3	2	7	14:45			15	59	19	64	34	123
03:00			1		4		5		15:00			12		22		34	
03:15			1		1		2		15:15			23		23		46	
03:30			2		1		3		15:30			12		14		26	
03:45			0	4	2	8	2	12	15:45			23	70	22	81	45	151
04:00			1		0		1		16:00			18		24		42	
04:15			2		2		4		16:15			13		24		37	
04:30			0		2		2		16:30			17		22		39	
04:45			1	4	3	7	4	11	16:45			22	70	21	91	43	161
05:00			1		2		3		17:00			24		24		48	
05:15			3		5		8		17:15			17		20		37	
05:30			4		8		12		17:30			23		26		49	
05:45			9	17	8	23	17	40	17:45			18	82	22	92	40	174
06:00			6		14		20		18:00			14		21		35	
06:15			5		14		19		18:15			16		20		36	
06:30			6		10		16		18:30			12		21		33	
06:45			13	30	12	50	25	80	18:45			20	62	15	77	35	139
07:00			12		24		36		19:00			16		10		26	
07:15			11		25		36		19:15			5		16		21	
07:30			13		22		35		19:30			9		9		18	
07:45			15	51	32	103	47	154	19:45			11	41	9	44	20	85
08:00			30		12		42		20:00			12		4		16	
08:15			13		10		23		20:15			8		6		14	
08:30			7		12		19		20:30			14		9		23	
08:45			12	62	5	39	17	101	20:45			12	46	14	33	26	79
09:00			7		10		17		21:00			12		5		17	
09:15			9		14		23		21:15			5		12		17	
09:30			6		11		17		21:30			3		7		10	
09:45			5	27	10	45	15	72	21:45			6	26	10	34	16	60
10:00			7		13		20		22:00			4		10		14	
10:15			9		11		20		22:15			7		2		9	
10:30			13		12		25		22:30			3		8		11	
10:45			10	39	7	43	17	82	22:45			5	19	5	25	10	44
11:00			7		10		17		23:00			6		5		11	
11:15			16		7		23		23:15			4		4		8	
11:30			12		9		21		23:30			3		4		7	
11:45			13	48	6	32	19	80	23:45			3	16	1	14	4	30
TOTALS				298		363		**661**	**TOTALS**				583		669		**1252**
SPLIT %				45.1%		54.9%		**34.6%**	**SPLIT %**				46.6%		53.4%		**65.4%**

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	881	1,032	1,913

	NB	SB	EB	WB	Total		NB	SB	EB	WB	Total
AM Peak Hour			07:30	07:00	**07:15**	**PM Peak Hour**			16:45	15:45	**16:45**
AM Pk Volume			71	103	**160**	**PM Pk Volume**			86	92	**177**
Pk Hr Factor			0.592	0.805	**0.851**	**Pk Hr Factor**			0.896	0.958	**0.903**
7 - 9 Volume	0	0	113	142	**255**	**4 - 6 Volume**	0	0	152	183	**335**
7 - 9 Peak Hour			07:30	07:00	**07:15**	**4 - 6 Peak Hour**			16:45	17:00	**16:45**
7 - 9 Pk Volume	0	0	71	103	**160**	**4 - 6 Pk Volume**	0	0	86	92	**177**
Pk Hr Factor	0.000	0.000	0.592	0.805	**0.851**	**Pk Hr Factor**	0.000	0.000	0.896	0.885	**0.903**

Prepared by National Data & Surveying Services

CLASSIFICATION

Valerio St Bet. Laurel Canyon Blvd & Radford Ave

Day: Wednesday
Date: 3/7/2018

City: North Hollywood
Project #: CA18_5144_004e

East Bound

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
00:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
00:15	0	2	0	0	0	0	0	0	0	0	0	0	0	**2**
00:30	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
00:45	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
01:15	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
01:30	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
01:45	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
02:15	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
02:30	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
02:45	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
03:15	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
03:30	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
03:45	0	0	1	0	0	0	0	0	0	0	0	0	0	**1**
04:00	0	0	0	0	1	0	0	0	0	0	0	0	0	**1**
04:15	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
04:30	0	2	1	0	0	0	0	0	0	0	0	0	0	**3**
04:45	0	2	1	0	0	0	0	0	0	0	0	0	0	**3**
05:00	0	1	1	0	0	0	0	0	0	0	0	0	0	**2**
05:15	0	3	1	0	1	0	0	0	0	0	0	0	0	**5**
05:30	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
05:45	0	6	4	0	0	0	0	0	0	0	0	0	0	**10**
06:00	0	1	4	0	0	0	0	0	0	0	0	0	0	**5**
06:15	0	2	1	0	1	1	0	0	0	0	0	0	0	**5**
06:30	0	6	0	0	1	0	0	1	0	0	0	0	0	**8**
06:45	0	1	2	0	1	0	0	0	1	0	0	0	0	**5**
07:00	0	7	2	0	2	0	0	0	0	0	0	0	0	**11**
07:15	0	6	6	0	0	0	0	0	0	0	0	0	0	**12**
07:30	0	3	3	0	0	2	0	0	0	0	0	0	0	**8**
07:45	0	15	3	0	4	1	0	0	0	0	0	0	0	**23**
08:00	0	8	1	0	1	1	0	0	0	0	0	0	0	**11**
08:15	0	6	2	0	1	0	0	0	0	0	0	0	0	**9**
08:30	0	6	3	0	2	0	0	0	1	0	0	0	0	**12**
08:45	0	5	2	0	1	0	0	0	0	0	0	0	0	**8**
09:00	0	4	3	0	2	2	0	0	0	0	0	0	0	**11**
09:15	0	4	3	0	0	0	0	0	0	0	0	0	0	**7**
09:30	0	3	2	0	1	0	0	0	0	0	0	0	0	**6**
09:45	0	3	1	0	3	0	0	0	0	0	0	0	0	**7**
10:00	0	4	2	0	2	0	0	0	0	0	0	0	0	**8**
10:15	0	6	5	0	4	0	0	0	0	0	0	0	0	**15**
10:30	0	3	0	0	1	0	0	0	0	0	0	0	0	**4**
10:45	0	3	2	0	1	0	0	0	0	0	0	0	0	**6**
11:00	0	1	2	0	0	0	0	0	0	0	0	0	0	**3**
11:15	0	2	2	1	0	0	0	0	0	0	0	0	0	**5**
11:30	1	1	3	0	1	0	0	0	0	0	0	0	0	**6**
11:45	0	3	3	0	2	1	0	0	0	0	0	0	0	**9**
12:00 PM	0	7	1	0	0	0	0	0	0	0	0	0	0	**8**
12:15	0	9	0	0	1	0	1	0	0	0	0	0	0	**11**
12:30	0	2	1	0	0	0	0	0	0	0	0	0	0	**3**
12:45	0	6	2	0	2	0	0	1	0	0	0	0	0	**11**
13:00	0	4	1	0	1	1	0	0	0	0	0	0	0	**7**
13:15	0	3	2	0	0	0	0	0	0	0	0	0	0	**5**
13:30	0	3	1	0	3	0	0	0	0	0	0	0	0	**7**
13:45	0	4	1	0	1	0	0	0	0	0	0	0	0	**6**
14:00	0	5	2	0	0	0	0	0	0	0	0	0	0	**7**
14:15	0	3	1	0	2	0	0	1	0	0	0	0	0	**7**
14:30	0	6	3	0	1	0	0	0	0	0	0	0	0	**10**
14:45	0	5	2	0	1	0	0	0	0	0	0	0	0	**8**
15:00	0	7	2	1	3	0	0	0	0	0	0	0	0	**13**
15:15	1	8	3	1	1	1	0	0	0	0	0	0	0	**15**
15:30	0	8	1	0	3	0	0	0	1	0	0	0	0	**13**
15:45	0	10	3	0	2	0	0	0	0	0	0	0	0	**15**
16:00	0	8	0	0	1	0	0	0	0	0	0	0	0	**9**
16:15	0	7	0	0	0	0	0	0	0	0	0	0	0	**7**
16:30	0	5	1	1	0	0	0	0	0	0	0	0	0	**7**
16:45	0	6	3	0	1	1	0	0	0	0	0	0	0	**11**
17:00	0	7	2	0	1	1	0	0	0	0	0	0	0	**11**
17:15	0	5	0	0	0	0	0	0	0	0	0	0	0	**5**
17:30	0	5	0	0	2	0	0	0	0	0	0	0	0	**7**
17:45	0	7	2	0	1	0	0	0	0	0	0	0	0	**10**
18:00	0	6	0	0	0	0	0	0	0	0	0	0	0	**6**
18:15	0	4	0	0	0	0	0	0	0	0	0	0	0	**4**
18:30	0	4	1	0	1	0	0	0	1	0	0	0	0	**7**
18:45	0	10	1	0	2	0	0	0	0	0	0	0	0	**13**
19:00	0	3	0	0	0	0	0	0	0	0	0	0	0	**3**
19:15	0	4	0	0	1	0	0	0	0	0	0	0	0	**5**
19:30	0	3	1	0	0	0	0	0	0	0	0	0	0	**4**
19:45	0	5	0	0	1	0	0	0	0	0	0	0	0	**6**
20:00	0	3	0	0	1	0	0	0	0	0	0	0	0	**4**
20:15	0	0	1	0	0	0	0	0	0	0	0	0	0	**1**
20:30	0	5	0	0	0	0	0	0	0	0	0	0	0	**5**
20:45	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
21:00	0	3	0	0	0	0	0	0	0	0	0	0	0	**3**
21:15	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
21:30	0	5	0	0	0	0	0	0	0	0	0	0	0	**5**
21:45	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
22:00	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
22:15	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
22:30	0	2	0	0	0	0	0	0	0	0	0	0	0	**2**
22:45	0	2	0	0	0	0	0	0	0	0	0	0	0	**2**
23:00	0	2	0	0	1	0	0	0	0	0	0	0	0	**3**
23:15	0	2	0	0	0	0	0	0	0	0	0	0	0	**2**
23:30	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
23:45	0	3	1	0	1	0	0	0	0	0	0	0	0	**5**
Totals	**2**	**334**	**105**	**4**	**68**	**12**	**1**	**3**	**4**					**533**
% of Totals	0%	63%	20%	1%	13%	2%	0%	1%	1%					100%

AM Volumes	1	123	66	1	33	8	0	1	2	0	0	0	0	235
% AM	0%	23%	12%	0%	6%	2%		0%	0%					44%
AM Peak Hour	10:45	07:45	07:00	10:30	09:30	07:15	11:30	05:45	06:00					07:45
Volume	1	35	14	1	10	4	1	1	1					55
PM Volumes	1	211	39	3	35	4	1	2	2	0	0	0	0	298
% PM	0%	40%	7%	1%	7%	1%	0%	0%	0%					56%
PM Peak Hour	14:30	15:15	14:30	14:30	15:00	16:15	12:00	12:00	14:45					15:00
Volume	1	34	10	2	9	2	1	1	1					56

Directional Peak Periods	**AM 7-9**			**NOON 12-2**			**PM 4-6**			**Off Peak Volumes**		
All Classes	Volume		%	Volume		%	Volume		%	Volume		%
	94	⟷	18%	58	⟷	11%	67	⟷	13%	314	⟷	59%

Classification Definitions

1 Motorcycles
2 Passenger Cars
3 2-Axle, 4-Tire Single Units
4 Buses
5 2-Axle, 6-Tire Single Units
6 3-Axle Single Units
7 > =4-Axle Single Units
8 <=4-Axle Single Trailers
9 5-Axle Single Trailers
10 >=6-Axle Single Trailers
11 <=5-Axle Multi-Trailers
12 6-Axle Multi-Trailers
13 >=7-Axle Multi-Trailers

Prepared by National Data & Surveying Services

CLASSIFICATION

Valerio St Bet. Laurel Canyon Blvd & Radford Ave

Day: Wednesday
Date: 3/7/2018

City: North Hollywood
Project #: CA18_5144_004w

West Bound

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
00:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	2
00:15	0	0	1	0	0	0	0	0	0	0	0	0	0	1
00:30	0	1	0	0	0	0	0	0	0	0	0	0	0	1
00:45	0	1	0	0	0	0	0	0	0	0	0	0	0	1
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45	0	1	0	0	0	0	0	0	0	0	0	0	0	1
02:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
02:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15	0	1	0	0	0	0	0	0	0	0	0	0	0	1
03:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45	0	2	0	0	0	0	0	0	0	0	0	0	0	2
04:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
04:15	0	3	1	0	0	0	0	0	0	0	0	0	0	4
04:30	0	1	0	0	0	0	0	0	0	0	0	0	0	1
04:45	0	2	0	0	0	0	0	0	0	0	0	0	0	2
05:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
05:15	0	3	0	0	0	0	0	0	0	0	0	0	0	3
05:30	0	1	2	0	0	0	0	0	0	0	0	0	0	3
05:45	0	2	0	0	0	0	0	0	0	0	0	0	0	2
06:00	0	8	0	0	0	0	0	0	0	0	0	0	0	8
06:15	0	4	0	0	1	0	0	0	0	0	0	0	0	5
06:30	0	5	0	0	0	0	0	0	0	0	0	0	0	5
06:45	0	1	1	0	0	0	0	0	0	0	0	0	0	2
07:00	0	5	1	0	0	1	0	0	0	0	0	0	0	7
07:15	0	8	3	0	3	0	0	0	0	0	0	0	0	14
07:30	0	14	5	0	2	1	0	0	0	0	0	0	0	22
07:45	0	11	2	0	1	0	0	0	0	0	0	0	0	14
08:00	0	11	1	1	1	0	0	0	0	0	0	0	0	14
08:15	0	5	1	0	1	1	0	0	0	0	0	0	0	8
08:30	0	5	1	0	0	0	0	0	0	0	0	0	0	6
08:45	0	9	2	0	1	0	0	0	0	0	0	0	0	12
09:00	0	3	0	0	3	0	0	0	0	0	0	0	0	6
09:15	0	4	3	0	1	0	0	0	0	0	0	0	0	8
09:30	0	5	0	0	0	1	0	0	0	0	0	0	0	6
09:45	0	2	2	0	1	0	0	1	0	0	0	0	0	6
10:00	0	8	0	1	0	0	0	0	0	0	0	0	0	9
10:15	0	2	3	0	1	0	0	0	0	0	0	0	0	6
10:30	0	8	2	0	1	0	0	1	0	0	0	0	0	12
10:45	0	8	1	1	0	0	0	1	0	0	0	0	0	11
11:00	0	3	2	0	2	0	0	0	0	0	0	0	0	7
11:15	0	3	1	0	2	0	0	0	0	0	0	0	0	6
11:30	0	3	1	0	2	0	0	0	0	0	0	0	0	6
11:45	0	4	2	0	1	0	0	1	0	0	0	0	0	8
12:00 PM	0	9	3	0	2	1	0	1	0	0	0	0	0	16
12:15	0	4	1	0	0	0	0	1	0	0	0	0	0	6
12:30	0	3	2	0	1	2	0	1	0	0	0	0	0	9
12:45	0	4	1	0	3	0	0	3	0	0	0	0	0	11
13:00	0	8	1	0	1	0	0	1	0	0	0	0	0	11
13:15	0	5	2	0	0	0	0	1	0	0	0	0	0	8
13:30	0	9	0	0	0	1	0	0	0	0	0	0	0	10
13:45	0	8	0	1	1	0	0	0	0	0	0	0	0	10
14:00	0	5	2	0	4	0	0	1	0	0	0	0	0	12
14:15	0	8	4	0	2	0	0	1	0	0	0	0	0	15
14:30	0	9	4	0	3	0	0	0	0	0	0	0	0	16
14:45	0	11	3	0	1	0	0	0	0	0	0	0	0	15
15:00	0	8	1	0	1	0	0	2	0	0	0	0	0	12
15:15	0	7	0	0	2	0	0	0	0	0	0	0	0	9
15:30	1	9	5	0	2	0	0	0	0	0	0	0	0	17
15:45	0	13	1	1	0	1	0	0	0	0	0	0	0	16
16:00	1	24	3	0	3	0	0	0	0	0	0	0	0	31
16:15	0	9	7	0	1	0	0	1	0	0	0	0	0	18
16:30	0	24	6	0	2	0	0	0	0	0	0	0	0	32
16:45	0	7	1	0	2	0	0	0	0	0	0	0	0	10
17:00	0	15	1	0	1	2	0	0	0	0	0	0	0	19
17:15	1	11	1	1	0	0	0	1	0	0	0	0	0	15
17:30	0	13	1	0	0	0	0	0	0	0	0	0	0	14
17:45	0	12	4	0	4	0	0	0	0	0	0	0	0	20
18:00	0	12	3	1	0	0	0	0	0	0	0	0	0	16
18:15	0	15	1	0	2	0	0	1	0	0	0	0	0	19
18:30	0	4	3	0	3	0	0	1	0	0	0	0	0	11
18:45	0	6	2	0	1	0	0	0	0	0	0	0	0	9
19:00	0	6	1	0	1	0	0	0	0	0	0	0	0	8
19:15	0	3	0	0	1	0	0	0	0	0	0	0	0	4
19:30	0	0	1	0	0	0	0	0	0	0	0	0	0	1
19:45	0	4	1	0	1	0	0	0	0	0	0	0	0	6
20:00	0	6	1	0	0	1	0	0	0	0	0	0	0	8
20:15	0	0	0	0	1	0	0	0	0	0	0	0	0	1
20:30	0	4	1	0	0	0	0	0	0	0	0	0	0	5
20:45	0	2	0	0	1	0	0	0	0	0	0	0	0	3
21:00	0	5	0	0	0	0	0	0	0	0	0	0	0	5
21:15	0	3	0	0	0	0	0	0	0	0	0	0	0	3
21:30	0	1	0	0	0	0	0	0	0	0	0	0	0	1
21:45	0	2	0	0	0	0	0	0	0	0	0	0	0	2
22:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
22:15	0	1	0	0	0	0	0	0	0	0	0	0	0	1
22:30	0	1	0	0	0	0	0	0	0	0	0	0	0	1
22:45	0	3	0	0	1	0	0	0	0	0	0	0	0	4
23:00	0	3	0	0	0	0	0	0	0	0	0	0	0	3
23:15	0	1	0	0	0	0	0	0	0	0	0	0	0	1
23:30	0	4	0	0	0	0	0	0	0	0	0	0	0	4
23:45	0	2	0	0	0	0	0	0	0	0	0	0	0	2
Totals	3	487	106	7	72	12		20						707
% of Totals	0%	69%	15%	1%	10%	2%		3%						100%

AM Volumes	0	163	38	3	24	4	0	4	0	0	0	0	0	236
% AM		23%	5%	0%	3%	1%		1%						33%
AM Peak Hour		07:15	07:00	10:00	07:15	11:45		11:45						07:15
Volume		44	11	2	7	3		4						64
PM Volumes	3	324	68	4	48	8	0	16	0	0	0	0	0	471
% PM	0%	46%	10%	1%	7%	1%		2%						67%
PM Peak Hour	15:15	15:45	15:45	17:15	13:45	12:00		12:00						15:45
Volume	2	70	17	2	10	3		6						97

Directional Peak Periods	AM 7-9			NOON 12-2			PM 4-6			Off Peak Volumes		
All Classes	Volume		%	Volume		%	Volume		%	Volume		%
	97	⟷	14%	81	⟷	11%	159	⟷	22%	370	⟷	52%

Classification Definitions

1 Motorcycles
2 Passenger Cars
3 2-Axle, 4-Tire Single Units
4 Buses
5 2-Axle, 6-Tire Single Units
6 3-Axle Single Units
7 > =4-Axle Single Units
8 <=4-Axle Single Trailers
9 5-Axle Single Trailers
10 >=6-Axle Single Trailers
11 <=5-Axle Multi-Trailers
12 6-Axle Multi-Trailers
13 >=7-Axle Multi-Trailers

CLASSIFICATION

Valerio St Bet. Laurel Canyon Blvd & Radford Ave

Day: Wednesday
Date: 3/7/2018

City: North Hollywood
Project #: CA18_5144_004

Summary

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
00:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	**2**
00:15	0	2	1	0	0	0	0	0	0	0	0	0	0	**3**
00:30	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
00:45	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
01:15	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
01:30	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
01:45	0	2	0	0	0	0	0	0	0	0	0	0	0	**2**
02:00	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
02:15	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
02:30	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
02:45	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
03:15	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
03:30	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
03:45	0	2	1	0	0	0	0	0	0	0	0	0	0	**3**
04:00	0	1	0	0	1	0	0	0	0	0	0	0	0	**2**
04:15	0	3	1	0	0	0	0	0	0	0	0	0	0	**4**
04:30	0	3	1	0	0	0	0	0	0	0	0	0	0	**4**
04:45	0	4	1	0	0	0	0	0	0	0	0	0	0	**5**
05:00	0	3	1	0	0	0	0	0	0	0	0	0	0	**4**
05:15	0	6	1	0	1	0	0	0	0	0	0	0	0	**8**
05:30	0	2	2	0	0	0	0	0	0	0	0	0	0	**4**
05:45	0	8	4	0	0	0	0	0	0	0	0	0	0	**12**
06:00	0	9	4	0	0	0	0	0	0	0	0	0	0	**13**
06:15	0	6	1	0	2	1	0	0	0	0	0	0	0	**10**
06:30	0	11	0	0	1	0	0	1	0	0	0	0	0	**13**
06:45	0	2	3	0	1	0	0	0	1	0	0	0	0	**7**
07:00	0	12	3	0	2	1	0	0	0	0	0	0	0	**18**
07:15	0	14	9	0	3	0	0	0	0	0	0	0	0	**26**
07:30	0	17	8	0	2	3	0	0	0	0	0	0	0	**30**
07:45	0	26	5	0	5	1	0	0	0	0	0	0	0	**37**
08:00	0	19	2	1	2	1	0	0	0	0	0	0	0	**25**
08:15	0	11	3	0	2	1	0	0	0	0	0	0	0	**17**
08:30	0	11	4	0	2	0	0	0	1	0	0	0	0	**18**
08:45	0	14	4	0	2	0	0	0	0	0	0	0	0	**20**
09:00	0	7	3	0	5	2	0	0	0	0	0	0	0	**17**
09:15	0	8	6	0	1	0	0	0	0	0	0	0	0	**15**
09:30	0	8	2	0	1	1	0	0	0	0	0	0	0	**12**
09:45	0	5	3	0	4	0	0	1	0	0	0	0	0	**13**
10:00	0	12	2	1	2	0	0	0	0	0	0	0	0	**17**
10:15	0	8	8	0	5	0	0	0	0	0	0	0	0	**21**
10:30	0	11	2	0	2	0	0	1	0	0	0	0	0	**16**
10:45	0	11	3	1	1	0	0	1	0	0	0	0	0	**17**
11:00	0	4	4	0	2	0	0	0	0	0	0	0	0	**10**
11:15	0	5	3	1	2	0	0	0	0	0	0	0	0	**11**
11:30	1	4	4	0	3	0	0	0	0	0	0	0	0	**12**
11:45	0	7	5	0	3	1	0	1	0	0	0	0	0	**17**
12:00 PM	0	16	4	0	2	1	0	1	0	0	0	0	0	**24**
12:15	0	13	1	0	1	0	1	1	0	0	0	0	0	**17**
12:30	0	5	3	0	1	2	0	1	0	0	0	0	0	**12**
12:45	0	10	3	0	5	0	0	4	0	0	0	0	0	**22**
13:00	0	12	2	0	2	1	0	1	0	0	0	0	0	**18**
13:15	0	8	4	0	0	0	0	1	0	0	0	0	0	**13**
13:30	0	12	1	0	3	1	0	0	0	0	0	0	0	**17**
13:45	0	12	1	1	2	0	0	0	0	0	0	0	0	**16**
14:00	0	10	4	0	4	0	0	1	0	0	0	0	0	**19**
14:15	0	11	5	0	4	0	0	2	0	0	0	0	0	**22**
14:30	0	15	7	0	4	0	0	0	0	0	0	0	0	**26**
14:45	0	16	5	0	2	0	0	0	0	0	0	0	0	**23**
15:00	0	15	3	1	4	0	0	2	0	0	0	0	0	**25**
15:15	1	15	3	1	3	1	0	0	0	0	0	0	0	**24**
15:30	1	17	6	0	5	0	0	0	1	0	0	0	0	**30**
15:45	0	23	4	1	2	1	0	0	0	0	0	0	0	**31**
16:00	1	32	3	0	4	0	0	0	0	0	0	0	0	**40**
16:15	0	16	7	0	1	0	0	1	0	0	0	0	0	**25**
16:30	0	29	7	1	2	0	0	0	0	0	0	0	0	**39**
16:45	0	13	4	0	3	1	0	0	0	0	0	0	0	**21**
17:00	0	22	3	0	2	3	0	0	0	0	0	0	0	**30**
17:15	1	16	1	1	0	0	0	1	0	0	0	0	0	**20**
17:30	0	18	1	0	2	0	0	0	0	0	0	0	0	**21**
17:45	0	19	6	0	5	0	0	0	0	0	0	0	0	**30**
18:00	0	18	3	1	0	0	0	0	0	0	0	0	0	**22**
18:15	0	19	1	0	2	0	0	1	0	0	0	0	0	**23**
18:30	0	8	4	0	4	0	0	1	1	0	0	0	0	**18**
18:45	0	16	3	0	3	0	0	0	0	0	0	0	0	**22**
19:00	0	9	1	0	1	0	0	0	0	0	0	0	0	**11**
19:15	0	7	0	0	2	0	0	0	0	0	0	0	0	**9**
19:30	0	3	2	0	0	0	0	0	0	0	0	0	0	**5**
19:45	0	9	1	0	2	0	0	0	0	0	0	0	0	**12**
20:00	0	9	1	0	1	1	0	0	0	0	0	0	0	**12**
20:15	0	0	1	0	1	0	0	0	0	0	0	0	0	**2**
20:30	0	9	1	0	0	0	0	0	0	0	0	0	0	**10**
20:45	0	3	0	0	1	0	0	0	0	0	0	0	0	**4**
21:00	0	8	0	0	0	0	0	0	0	0	0	0	0	**8**
21:15	0	3	0	0	0	0	0	0	0	0	0	0	0	**3**
21:30	0	6	0	0	0	0	0	0	0	0	0	0	0	**6**
21:45	0	3	0	0	0	0	0	0	0	0	0	0	0	**3**
22:00	0	2	0	0	0	0	0	0	0	0	0	0	0	**2**
22:15	0	2	0	0	0	0	0	0	0	0	0	0	0	**2**
22:30	0	3	0	0	0	0	0	0	0	0	0	0	0	**3**
22:45	0	5	0	0	1	0	0	0	0	0	0	0	0	**6**
23:00	0	5	0	0	1	0	0	0	0	0	0	0	0	**6**
23:15	0	3	0	0	0	0	0	0	0	0	0	0	0	**3**
23:30	0	5	0	0	0	0	0	0	0	0	0	0	0	**5**
23:45	0	5	1	0	1	0	0	0	0	0	0	0	0	**7**
Totals	**5**	**821**	**211**	**11**	**140**	**24**	**1**	**23**	**4**					**1240**
% of Totals	0%	66%	17%	1%	11%	2%	0%	2%	0%					100%

	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
AM Volumes	1	286	104	4	57	12	0	5	2	0	0	0	0	471
% AM	0%	23%	8%	0%	5%	1%		0%	0%					38%
AM Peak Hour	10:45	07:15	07:00	10:00	09:45	07:30	11:30	11:45	06:00					07:15
Volume	1	76	25	2	13	6	1	4	1					118
PM Volumes	4	535	107	7	83	12	1	18	2	0	0	0	0	769
% PM	0%	43%	9%	1%	7%	1%	0%	1%	0%					62%
PM Peak Hour	15:15	15:45	14:00	15:00	13:45	16:15	12:00	12:00	14:45					15:45
Volume	3	100	21	3	14	4	1	7	1					135

Directional Peak Periods All Classes	**AM 7-9**	**NOON 12-2**	**PM 4-6**	**Off Peak Volumes**
	Volume ↔ %	Volume ↔ %	Volume ↔ %	Volume ↔ %
	191 ↔ 15%	139 ↔ 11%	226 ↔ 18%	684 ↔ 55%

Classification Definitions

1 Motorcycles
2 Passenger Cars
3 2-Axle, 4-Tire Single Units
4 Buses
5 2-Axle, 6-Tire Single Units
6 3-Axle Single Units
7 > =4-Axle Single Units
8 <=4-Axle Single Trailers
9 5-Axle Single Trailers
10 >=6-Axle Single Trailers
11 <=5-Axle Multi-Trailers
12 6-Axle Multi-Trailers
13 >=7-Axle Multi-Trailers

Prepared by National Data & Surveying Services

CLASSIFICATION

Valerio St Bet. Laurel Canyon Blvd & Radford Ave

Day: Wednesday
Date: 3/7/2018

City: North Hollywood
Project #: CA18_5144_004e

East Bound

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
00:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	**2**
01:00	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
02:00	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
03:00	0	1	1	0	0	0	0	0	0	0	0	0	0	**2**
04:00	0	4	2	0	1	0	0	0	0	0	0	0	0	**7**
05:00	0	11	6	0	1	0	0	0	0	0	0	0	0	**18**
06:00	0	10	7	0	3	1	0	1	1	0	0	0	0	**23**
07:00	0	31	14	0	6	3	0	0	0	0	0	0	0	**54**
08:00	0	25	8	0	5	1	0	0	1	0	0	0	0	**40**
09:00	0	14	9	0	6	2	0	0	0	0	0	0	0	**31**
10:00	0	16	9	0	8	0	0	0	0	0	0	0	0	**33**
11:00	1	7	10	1	3	1	0	0	0	0	0	0	0	**23**
12:00 PM	0	24	4	0	3	0	1	1	0	0	0	0	0	**33**
13:00	0	14	5	0	5	1	0	0	0	0	0	0	0	**25**
14:00	0	19	8	0	4	0	0	1	0	0	0	0	0	**32**
15:00	1	33	9	2	9	1	0	0	1	0	0	0	0	**56**
16:00	0	26	4	1	2	1	0	0	0	0	0	0	0	**34**
17:00	0	24	4	0	4	1	0	0	0	0	0	0	0	**33**
18:00	0	24	2	0	3	0	0	0	1	0	0	0	0	**30**
19:00	0	15	1	0	2	0	0	0	0	0	0	0	0	**18**
20:00	0	9	1	0	1	0	0	0	0	0	0	0	0	**11**
21:00	0	9	0	0	0	0	0	0	0	0	0	0	0	**9**
22:00	0	6	0	0	0	0	0	0	0	0	0	0	0	**6**
23:00	0	8	1	0	2	0	0	0	0	0	0	0	0	**11**
Totals	**2**	**334**	**105**	**4**	**68**	**12**	**1**	**3**	**4**					**533**
% of Totals	0%	63%	20%	1%	13%	2%	0%	1%	1%					100%

AM Volumes	1	123	66	1	33	8	0	1	2	0	0	0	0	235
% AM	0%	23%	12%	0%	6%	2%		0%	0%					44%
AM Peak Hour	11:00	07:00	07:00	11:00	10:00	07:00		06:00	06:00					07:00
Volume	1	31	14	1	8	3		1	1					54
PM Volumes	1	211	39	3	35	4	1	2	2	0	0	0	0	298
% PM	0%	40%	7%	1%	7%	1%	0%	0%	0%					56%
PM Peak Hour	15:00	15:00	15:00	15:00	15:00	13:00	12:00	12:00	15:00					15:00
Volume	1	33	9	2	9	1	1	1	1					56

Directional Peak Periods	**AM 7-9**		**NOON 12-2**		**PM 4-6**		**Off Peak Volumes**	
All Classes	Volume	%	Volume	%	Volume	%	Volume	%
	94	18%	58	11%	67	13%	314	59%

Classification Definitions

1	Motorcycles	**4**	Buses	**7**	> =4-Axle Single Units	**10**	>=6-Axle Single Trailers	**13**	>=7-Axle Multi-Trailers
2	Passenger Cars	**5**	2-Axle, 6-Tire Single Units	**8**	<=4-Axle Single Trailers	**11**	<=5-Axle Multi-Trailers		
3	2-Axle, 4-Tire Single Units	**6**	3-Axle Single Units	**9**	5-Axle Single Trailers	**12**	6-Axle Multi-Trailers		

Prepared by National Data & Surveying Services

CLASSIFICATION

Valerio St Bet. Laurel Canyon Blvd & Radford Ave

Day: Wednesday
Date: 3/7/2018

City: North Hollywood
Project #: CA18_5144_004w

West Bound

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
00:00 AM	0	4	1	0	0	0	0	0	0	0	0	0	0	**5**
01:00	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
02:00	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
03:00	0	3	0	0	0	0	0	0	0	0	0	0	0	**3**
04:00	0	7	1	0	0	0	0	0	0	0	0	0	0	**8**
05:00	0	8	2	0	0	0	0	0	0	0	0	0	0	**10**
06:00	0	18	1	0	1	0	0	0	0	0	0	0	0	**20**
07:00	0	38	11	0	6	2	0	0	0	0	0	0	0	**57**
08:00	0	30	5	1	3	1	0	0	0	0	0	0	0	**40**
09:00	0	14	5	0	5	1	0	1	0	0	0	0	0	**26**
10:00	0	26	6	2	2	0	0	2	0	0	0	0	0	**38**
11:00	0	13	6	0	7	0	0	1	0	0	0	0	0	**27**
12:00 PM	0	20	7	0	6	3	0	6	0	0	0	0	0	**42**
13:00	0	30	3	1	2	1	0	2	0	0	0	0	0	**39**
14:00	0	33	13	0	10	0	0	2	0	0	0	0	0	**58**
15:00	1	37	7	1	5	1	0	2	0	0	0	0	0	**54**
16:00	1	64	17	0	8	0	0	1	0	0	0	0	0	**91**
17:00	1	51	7	1	5	2	0	1	0	0	0	0	0	**68**
18:00	0	37	9	1	6	0	0	2	0	0	0	0	0	**55**
19:00	0	13	3	0	3	0	0	0	0	0	0	0	0	**19**
20:00	0	12	2	0	2	1	0	0	0	0	0	0	0	**17**
21:00	0	11	0	0	0	0	0	0	0	0	0	0	0	**11**
22:00	0	6	0	0	1	0	0	0	0	0	0	0	0	**7**
23:00	0	10	0	0	0	0	0	0	0	0	0	0	0	**10**
Totals	**3**	**487**	**106**	**7**	**72**	**12**		**20**						**707**
% of Totals	0%	69%	15%	1%	10%	2%		3%						100%

AM Volumes	0	163	38	3	24	4	0	4	0	0	0	0	0	236
% AM		23%	5%	0%	3%	1%		1%						33%
AM Peak Hour		07:00	07:00	10:00	11:00	07:00		10:00						07:00
Volume		38	11	2	7	2		2						57
PM Volumes	3	324	68	4	48	8	0	16	0	0	0	0	0	471
% PM	0%	46%	10%	1%	7%	1%		2%						67%
PM Peak Hour	15:00	16:00	16:00	13:00	14:00	12:00		12:00						16:00
Volume	1	64	17	1	10	3		6						91

Directional Peak Periods	**AM 7-9**			**NOON 12-2**			**PM 4-6**			**Off Peak Volumes**		
All Classes	Volume		%	Volume		%	Volume		%	Volume		%
	97	⟷	14%	81	⟷	11%	159	⟷	22%	370	⟷	52%

Classification Definitions

1 Motorcycles
2 Passenger Cars
3 2-Axle, 4-Tire Single Units
4 Buses
5 2-Axle, 6-Tire Single Units
6 3-Axle Single Units
7 > =4-Axle Single Units
8 <=4-Axle Single Trailers
9 5-Axle Single Trailers
10 >=6-Axle Single Trailers
11 <=5-Axle Multi-Trailers
12 6-Axle Multi-Trailers
13 >=7-Axle Multi-Trailers

Prepared by National Data & Surveying Services

CLASSIFICATION

Valerio St Bet. Laurel Canyon Blvd & Radford Ave

Day: Wednesday
Date: 3/7/2018

City: North Hollywood
Project #: CA18_5144_004

Summary

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
00:00 AM	0	6	1	0	0	0	0	0	0	0	0	0	0	7
01:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
02:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
03:00	0	4	1	0	0	0	0	0	0	0	0	0	0	5
04:00	0	11	3	0	1	0	0	0	0	0	0	0	0	15
05:00	0	19	8	0	1	0	0	0	0	0	0	0	0	28
06:00	0	28	8	0	4	1	0	1	1	0	0	0	0	43
07:00	0	69	25	0	12	5	0	0	0	0	0	0	0	111
08:00	0	55	13	1	8	2	0	0	1	0	0	0	0	80
09:00	0	28	14	0	11	3	0	1	0	0	0	0	0	57
10:00	0	42	15	2	10	0	0	2	0	0	0	0	0	71
11:00	1	20	16	1	10	1	0	1	0	0	0	0	0	50
12:00 PM	0	44	11	0	9	3	1	7	0	0	0	0	0	75
13:00	0	44	8	1	7	2	0	2	0	0	0	0	0	64
14:00	0	52	21	0	14	0	0	3	0	0	0	0	0	90
15:00	2	70	16	3	14	2	0	2	1	0	0	0	0	110
16:00	1	90	21	1	10	1	0	1	0	0	0	0	0	125
17:00	1	75	11	1	9	3	0	1	0	0	0	0	0	101
18:00	0	61	11	1	9	0	0	2	1	0	0	0	0	85
19:00	0	28	4	0	5	0	0	0	0	0	0	0	0	37
20:00	0	21	3	0	3	1	0	0	0	0	0	0	0	28
21:00	0	20	0	0	0	0	0	0	0	0	0	0	0	20
22:00	0	12	0	0	1	0	0	0	0	0	0	0	0	13
23:00	0	18	1	0	2	0	0	0	0	0	0	0	0	21
Totals	5	821	211	11	140	24	1	23	4					1240
% of Totals	0%	66%	17%	1%	11%	2%	0%	2%	0%					100%

AM Volumes	1	286	104	4	57	12	0	5	2	0	0	0	0	471
% AM	0%	23%	8%	0%	5%	1%		0%	0%					38%
AM Peak Hour	11:00	07:00	07:00	10:00	07:00	07:00		10:00	06:00					07:00
Volume	1	69	25	2	12	5		2	1					111
PM Volumes	4	535	107	7	83	12	1	18	2	0	0	0	0	769
% PM	0%	43%	9%	1%	7%	1%	0%	1%	0%					62%
PM Peak Hour	15:00	16:00	14:00	15:00	14:00	12:00	12:00	12:00	15:00					16:00
Volume	2	90	21	3	14	3	1	7	1					125

Directional Peak Periods **All Classes**	**AM 7-9**			**NOON 12-2**			**PM 4-6**			**Off Peak Volumes**		
	Volume		%	Volume		%	Volume		%	Volume		%
	191	⟷	15%	139	⟷	11%	226	⟷	18%	684	⟷	55%

Classification Definitions

1	Motorcycles	**4**	Buses	**7**	> =4-Axle Single Units	**10**	>=6-Axle Single Trailers	**13**	>=7-Axle Multi-Trailers
2	Passenger Cars	**5**	2-Axle, 6-Tire Single Units	**8**	<=4-Axle Single Trailers	**11**	<=5-Axle Multi-Trailers		
3	2-Axle, 4-Tire Single Units	**6**	3-Axle Single Units	**9**	5-Axle Single Trailers	**12**	6-Axle Multi-Trailers		

VOLUME

Valerio St Bet. Laurel Canyon Blvd & Radford Ave

Day: Wednesday
Date: 3/7/2018

City: North Hollywood
Project #: CA18_5144_004

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	533	707	1,240

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00	0	0	0		2		2		12:00	0	0	8		16		24	
00:15	0	0	2		1		3		12:15	0	0	11		6		17	
00:30	0	0	0		1		1		12:30	0	0	3		9		12	
00:45	0	0	0	2	1	5	1	7	12:45	0	0	11	33	11	42	22	75
01:00	0	0	0		0				13:00	0	0	7		11		18	
01:15	0	0	0		0				13:15	0	0	5		8		13	
01:30	0	0	0		0				13:30	0	0	7		10		17	
01:45	0	0	1	1	1	1	2	2	13:45	0	0	6	25	10	39	16	64
02:00	0	0	0		1		1		14:00	0	0	7		12		19	
02:15	0	0	1		0		1		14:15	0	0	7		15		22	
02:30	0	0	0		0				14:30	0	0	10		16		26	
02:45	0	0	0	1	0	1		2	14:45	0	0	8	32	15	58	23	90
03:00	0	0	0		0				15:00	0	0	13		12		25	
03:15	0	0	0		1		1		15:15	0	0	15		9		24	
03:30	0	0	1		0		1		15:30	0	0	13		17		30	
03:45	0	0	1	2	2	3	3	5	15:45	0	0	15	56	16	54	31	110
04:00	0	0	1		1		2		16:00	0	0	9		31		40	
04:15	0	0	0		4		4		16:15	0	0	7		18		25	
04:30	0	0	3		1		4		16:30	0	0	7		32		39	
04:45	0	0	3	7	2	8	5	15	16:45	0	0	11	34	10	91	21	125
05:00	0	0	2		2		4		17:00	0	0	11		19		30	
05:15	0	0	5		3		8		17:15	0	0	5		15		20	
05:30	0	0	1		3		4		17:30	0	0	7		14		21	
05:45	0	0	10	18	2	10	12	28	17:45	0	0	10	33	20	68	30	101
06:00	0	0	5		8		13		18:00	0	0	6		16		22	
06:15	0	0	5		5		10		18:15	0	0	4		19		23	
06:30	0	0	8		5		13		18:30	0	0	7		11		18	
06:45	0	0	5	23	2	20	7	43	18:45	0	0	13	30	9	55	22	85
07:00	0	0	11		7		18		19:00	0	0	3		8		11	
07:15	0	0	12		14		26		19:15	0	0	5		4		9	
07:30	0	0	8		22		30		19:30	0	0	4		1		5	
07:45	0	0	23	54	14	57	37	111	19:45	0	0	6	18	6	19	12	37
08:00	0	0	11		14		25		20:00	0	0	4		8		12	
08:15	0	0	9		8		17		20:15	0	0	1		1		2	
08:30	0	0	12		6		18		20:30	0	0	5		5		10	
08:45	0	0	8	40	12	40	20	80	20:45	0	0	1	11	3	17	4	28
09:00	0	0	11		6		17		21:00	0	0	3		5		8	
09:15	0	0	7		8		15		21:15	0	0	0		3		3	
09:30	0	0	6		6		12		21:30	0	0	5		1		6	
09:45	0	0	7	31	6	26	13	57	21:45	0	0	1	9	2	11	3	20
10:00	0	0	8		9		17		22:00	0	0	1		1		2	
10:15	0	0	15		6		21		22:15	0	0	1		1		2	
10:30	0	0	4		12		16		22:30	0	0	2		1		3	
10:45	0	0	6	33	11	38	17	71	22:45	0	0	2	6	4	7	6	13
11:00	0	0	3		7		10		23:00	0	0	3		3		6	
11:15	0	0	5		6		11		23:15	0	0	2		1		3	
11:30	0	0	6		6		12		23:30	0	0	1		4		5	
11:45	0	0	9	23	8	27	17	50	23:45	0	0	5	11	2	10	7	21
TOTALS				235		236		**471**	**TOTALS**				298		471		**769**
SPLIT %				49.9%		50.1%		**38.0%**	**SPLIT %**				38.8%		61.2%		**62.0%**

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	533	707	1,240

AM Peak Hour			07:45	07:15	**07:15**	**PM Peak Hour**			15:00	15:45	**15:45**
AM Pk Volume			55	64	**118**	**PM Pk Volume**			56	97	**135**
Pk Hr Factor			0.598	0.727	**0.797**	**Pk Hr Factor**			0.933	0.758	**0.844**
7 - 9 Volume	0	0	94	97	**191**	**4 - 6 Volume**	0	0	67	159	**226**
7 - 9 Peak Hour			07:45	07:15	**07:15**	**4 - 6 Peak Hour**			16:15	16:00	**16:00**
7 - 9 Pk Volume	0	0	55	64	**118**	**4 - 6 Pk Volume**	0	0	36	91	**125**
Pk Hr Factor	0.000	0.000	0.598	0.727	**0.797**	**Pk Hr Factor**	0.000	0.000	0.818	0.711	**0.781**

Prepared by National Data & Surveying Services

CLASSIFICATION

Radford Ave Bet. Wyandotte St & Sherman Rd

Day: Wednesday
Date: 3/7/2018

City: North Hollywood
Project #: CA18_5144_005n

North Bound

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
00:00 AM	0	4	0	0	0	0	0	0	0	0	0	0	0	**4**
00:15	0	10	1	0	0	0	0	0	0	0	0	0	0	**11**
00:30	0	4	0	0	0	0	0	0	0	0	0	0	0	**4**
00:45	0	4	1	0	0	0	0	0	0	0	0	0	0	**5**
01:00	0	4	0	0	0	0	0	0	0	0	0	0	0	**4**
01:15	0	2	0	0	0	0	0	0	0	0	0	0	0	**2**
01:30	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
01:45	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
02:00	0	3	0	0	0	0	0	0	0	0	0	0	0	**3**
02:15	0	2	0	0	0	0	0	0	0	0	0	0	0	**2**
02:30	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
02:45	0	5	0	0	0	0	0	0	0	0	0	0	0	**5**
03:00	0	1	0	0	1	0	0	0	0	0	0	0	0	**2**
03:15	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
03:30	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
03:45	0	3	0	0	0	0	0	0	0	0	0	0	0	**3**
04:00	0	1	0	0	1	0	0	0	0	0	0	0	0	**2**
04:15	0	0	1	0	0	0	0	0	0	0	0	0	0	**1**
04:30	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
04:45	0	2	1	0	0	0	0	0	0	0	0	0	0	**3**
05:00	0	1	0	0	1	0	0	0	0	0	0	0	0	**2**
05:15	0	6	1	0	1	0	0	0	0	0	0	0	0	**8**
05:30	0	12	0	0	2	0	0	0	0	0	0	0	0	**14**
05:45	0	13	4	0	1	0	0	0	0	0	0	0	0	**18**
06:00	0	7	2	0	1	0	0	0	0	0	0	0	0	**10**
06:15	0	7	2	0	2	0	0	0	0	0	0	0	0	**11**
06:30	0	9	4	1	0	0	0	0	0	0	0	0	0	**14**
06:45	0	19	4	0	1	0	0	0	0	0	0	0	0	**24**
07:00	0	5	1	0	0	0	0	0	0	0	0	0	0	**6**
07:15	0	7	4	0	1	0	0	0	0	0	0	0	0	**12**
07:30	0	5	3	0	3	1	0	0	0	0	0	0	0	**12**
07:45	0	21	3	0	0	0	0	0	0	0	0	0	0	**24**
08:00	0	29	3	1	4	0	0	0	0	0	0	0	0	**37**
08:15	0	18	2	0	3	0	0	0	0	0	0	0	0	**23**
08:30	0	19	3	0	1	0	0	0	0	0	0	0	0	**23**
08:45	0	18	4	1	3	0	0	0	0	0	0	0	0	**26**
09:00	0	8	5	1	1	0	0	0	0	0	0	0	0	**15**
09:15	0	15	5	0	1	0	0	0	0	0	0	0	0	**21**
09:30	0	15	4	0	1	1	0	0	0	0	0	0	0	**21**
09:45	0	14	2	0	2	0	0	2	0	0	0	0	0	**20**
10:00	0	16	0	0	2	0	0	0	0	0	0	0	0	**18**
10:15	0	11	2	0	8	0	0	0	0	0	0	0	0	**21**
10:30	0	15	5	1	3	0	0	1	0	0	0	0	0	**25**
10:45	0	13	2	3	1	0	0	1	0	0	0	0	0	**20**
11:00	0	12	3	1	1	0	0	0	0	0	0	0	0	**17**
11:15	0	14	5	0	0	1	0	0	0	0	0	0	0	**20**
11:30	0	16	3	0	3	0	0	0	0	0	0	0	0	**22**
11:45	0	22	3	0	2	1	0	0	0	0	0	0	0	**28**
12:00 PM	0	18	6	1	3	0	0	1	0	0	0	0	0	**29**
12:15	0	12	3	0	1	0	0	0	0	0	0	0	0	**16**
12:30	0	12	2	0	1	1	0	0	0	0	0	0	0	**16**
12:45	0	16	2	1	3	0	0	3	0	0	0	0	0	**25**
13:00	0	19	1	2	5	1	0	1	0	0	0	0	0	**29**
13:15	1	19	6	0	4	0	0	1	0	0	0	0	0	**31**
13:30	0	23	1	0	0	0	0	0	0	0	0	0	0	**24**
13:45	0	15	3	1	5	0	0	0	0	0	0	0	0	**24**
14:00	0	17	7	0	6	0	0	1	0	0	0	0	0	**31**
14:15	0	19	2	0	2	0	1	1	0	0	0	0	0	**25**
14:30	0	19	4	0	4	0	0	0	0	0	0	0	0	**27**
14:45	0	26	6	0	1	0	0	0	0	0	0	0	0	**33**
15:00	0	15	4	2	2	0	0	2	0	0	0	0	0	**25**
15:15	0	17	2	0	2	0	0	0	0	0	0	0	0	**21**
15:30	0	20	6	0	1	0	0	0	0	0	0	0	0	**27**
15:45	0	22	6	1	2	0	0	0	0	0	0	0	0	**31**
16:00	0	27	3	0	3	0	0	0	0	0	0	0	0	**33**
16:15	0	31	8	0	2	0	0	1	0	0	0	0	0	**42**
16:30	0	21	3	0	1	0	0	0	0	0	0	0	0	**25**
16:45	0	23	2	0	4	0	0	1	0	0	0	0	0	**30**
17:00	0	23	4	0	2	1	0	1	0	0	0	0	0	**31**
17:15	1	18	4	0	2	0	0	1	0	0	0	0	0	**26**
17:30	0	20	3	0	2	0	0	0	0	0	0	0	0	**25**
17:45	0	22	2	0	3	0	0	0	0	0	0	0	0	**27**
18:00	0	29	7	0	2	0	0	0	0	0	0	0	0	**38**
18:15	0	19	5	0	1	0	0	1	0	0	0	0	0	**26**
18:30	0	15	2	0	1	0	0	1	0	0	0	0	0	**19**
18:45	0	22	1	0	1	0	0	0	0	0	0	0	0	**24**
19:00	0	9	2	0	0	0	0	0	0	0	0	0	0	**11**
19:15	0	15	1	0	1	0	0	0	0	0	0	0	0	**17**
19:30	0	13	0	0	0	0	0	0	0	0	0	0	0	**13**
19:45	0	15	1	0	0	0	0	0	0	0	0	0	0	**16**
20:00	0	13	2	0	1	0	0	0	0	0	0	0	0	**16**
20:15	0	13	1	0	0	0	0	0	0	0	0	0	0	**14**
20:30	0	17	2	0	0	0	0	0	0	0	0	0	0	**19**
20:45	0	12	0	0	0	0	0	0	0	0	0	0	0	**12**
21:00	0	17	0	0	0	0	0	0	0	0	0	0	0	**17**
21:15	0	10	0	0	0	0	0	0	0	0	0	0	0	**10**
21:30	0	10	0	0	0	0	0	0	0	0	0	0	0	**10**
21:45	0	13	1	0	0	0	0	0	0	0	0	0	0	**14**
22:00	0	7	2	0	0	0	0	0	0	0	0	0	0	**9**
22:15	0	9	2	0	0	0	0	0	0	0	0	0	0	**11**
22:30	0	7	0	0	0	0	0	0	0	0	0	0	0	**7**
22:45	0	12	1	0	1	0	0	0	0	0	0	0	0	**14**
23:00	0	8	0	0	0	0	0	0	0	0	0	0	0	**8**
23:15	0	6	0	0	0	0	0	0	0	0	0	0	0	**6**
23:30	0	15	1	0	0	0	0	0	0	0	0	0	0	**16**
23:45	0	3	2	0	0	0	0	0	0	0	0	0	0	**5**
Totals	**2**	**1200**	**206**	**17**	**120**	**7**	**1**	**20**						**1573**
% of Totals	0%	76%	13%	1%	8%	0%	0%	1%						100%

AM Volumes	0	417	83	9	51	4	0	4	0	0	0	0	0	568
% AM		27%	5%	1%	3%	0%		0%						36%
AM Peak Hour		07:45	08:45	10:15	09:45	11:00		09:45						08:00
Volume		87	18	5	15	2		3						109
PM Volumes	2	783	123	8	69	3	1	16	0	0	0	0	0	1005
% PM	0%	50%	8%	1%	4%	0%	0%	1%						64%
PM Peak Hour	12:30	16:00	15:30	12:15	13:45	12:15	13:30	12:30						15:30
Volume	1	102	23	3	17	2	1	5						133

Directional Peak Periods	**AM 7-9**		**NOON 12-2**		**PM 4-6**		**Off Peak Volumes**	
All Classes	Volume	%	Volume	%	Volume	%	Volume	%
	163 ⟷	10%	194 ⟷	12%	239 ⟷	15%	977 ⟷	62%

Classification Definitions

1	Motorcycles	**4**	Buses	**7**	> =4-Axle Single Units	**10**	>=6-Axle Single Trailers	**13**	>=7-Axle Multi-Trailers
2	Passenger Cars	**5**	2-Axle, 6-Tire Single Units	**8**	<=4-Axle Single Trailers	**11**	<=5-Axle Multi-Trailers		
3	2-Axle, 4-Tire Single Units	**6**	3-Axle Single Units	**9**	5-Axle Single Trailers	**12**	6-Axle Multi-Trailers		

CLASSIFICATION

Radford Ave Bet. Wyandotte St & Sherman Rd

Day: Wednesday
Date: 3/7/2018

City: North Hollywood
Project #: CA18_5144_005s

South Bound

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
00:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	1
00:15	0	2	0	0	0	0	0	0	0	0	0	0	0	2
00:30	0	1	0	0	0	0	0	0	0	0	0	0	0	1
00:45	0	3	0	0	0	0	0	0	0	0	0	0	0	3
01:00	0	3	0	0	0	0	0	0	0	0	0	0	0	3
01:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45	0	1	0	0	0	0	0	0	0	0	0	0	0	1
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15	0	2	0	0	0	0	0	0	0	0	0	0	0	2
02:30	0	1	0	0	0	0	0	0	0	0	0	0	0	1
02:45	0	2	0	0	0	0	0	0	0	0	0	0	0	2
03:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
03:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45	0	1	1	0	0	0	0	0	0	0	0	0	0	2
04:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
04:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30	0	1	0	0	0	0	0	0	0	0	0	0	0	1
04:45	0	5	1	0	0	0	0	0	0	0	0	0	0	6
05:00	0	7	0	0	1	0	0	0	0	0	0	0	0	8
05:15	0	6	0	0	0	0	0	0	0	0	0	0	0	6
05:30	0	3	1	0	0	0	0	0	0	0	0	0	0	4
05:45	0	16	4	0	0	0	0	0	0	0	0	0	0	20
06:00	0	8	4	0	1	0	0	0	0	0	0	0	0	13
06:15	0	6	1	0	2	0	0	0	0	0	0	0	0	9
06:30	0	12	2	0	1	0	0	1	0	0	0	0	0	16
06:45	0	12	6	0	0	0	0	0	1	0	0	0	0	19
07:00	0	18	2	0	3	0	0	0	0	0	0	0	0	23
07:15	0	19	5	1	0	0	0	0	0	0	0	0	0	25
07:30	1	17	2	0	1	0	0	0	0	0	0	0	0	21
07:45	0	20	5	0	2	1	0	0	1	0	0	0	0	29
08:00	0	20	5	0	2	0	0	1	0	0	0	0	0	28
08:15	0	13	4	0	2	1	0	1	0	0	0	0	0	21
08:30	0	15	3	0	2	0	0	0	1	0	0	0	0	21
08:45	1	16	7	0	2	0	0	0	0	0	0	0	0	26
09:00	0	12	6	0	0	0	0	0	0	0	0	0	0	18
09:15	0	13	3	1	3	0	0	0	0	0	0	0	0	20
09:30	0	7	3	1	3	0	0	0	0	0	0	0	0	14
09:45	0	15	2	1	4	0	0	0	0	0	0	0	0	22
10:00	0	8	2	0	1	0	0	0	0	0	0	0	0	11
10:15	0	20	6	1	4	0	0	0	0	1	0	0	0	32
10:30	0	15	3	0	1	0	0	0	0	0	0	0	0	19
10:45	0	11	4	0	1	0	0	0	0	0	0	0	0	16
11:00	0	18	9	0	2	1	0	0	0	0	0	0	0	30
11:15	0	13	4	1	1	0	0	1	0	0	0	0	0	20
11:30	1	10	3	1	0	1	0	0	0	0	0	0	0	16
11:45	0	15	2	1	3	0	1	0	0	0	0	0	0	22
12:00 PM	0	20	1	0	1	0	0	0	0	0	0	0	0	22
12:15	0	12	3	0	1	0	0	0	0	0	0	0	0	16
12:30	0	16	3	1	2	0	0	0	0	0	0	0	0	22
12:45	0	18	4	1	1	0	0	1	0	0	0	0	0	25
13:00	0	13	5	0	1	0	0	1	0	0	0	0	0	20
13:15	0	10	3	1	3	0	0	0	0	0	0	0	0	17
13:30	0	12	3	0	0	0	1	0	0	0	0	0	0	16
13:45	0	18	3	0	4	1	0	0	0	0	0	0	0	26
14:00	0	12	3	0	2	1	0	0	0	0	0	0	0	18
14:15	0	9	2	0	2	0	0	1	0	0	0	0	0	14
14:30	0	13	4	0	0	0	0	0	0	0	0	0	0	17
14:45	0	12	1	0	1	0	0	0	0	0	0	0	0	14
15:00	0	13	6	1	0	0	0	0	0	0	0	0	0	20
15:15	0	11	1	1	1	0	0	0	0	0	0	0	0	14
15:30	0	18	4	1	3	0	0	0	0	0	0	0	0	26
15:45	0	26	4	0	2	0	0	0	0	0	0	0	0	32
16:00	0	18	2	0	2	0	0	0	0	0	0	0	0	22
16:15	0	15	5	0	2	0	0	0	0	0	0	0	0	22
16:30	0	18	4	1	1	0	0	0	0	0	0	0	0	24
16:45	0	21	1	0	1	0	0	0	0	0	0	0	0	23
17:00	0	20	1	0	0	1	0	1	0	0	0	0	0	23
17:15	0	12	2	0	0	0	0	0	0	0	0	0	0	14
17:30	0	14	1	0	1	1	0	0	0	0	0	0	0	17
17:45	0	14	3	0	2	0	0	0	0	0	0	0	0	19
18:00	0	19	1	0	0	0	0	0	0	0	0	0	0	20
18:15	0	24	2	0	0	0	0	0	0	1	0	0	0	27
18:30	0	15	0	0	0	0	0	0	0	0	0	0	0	15
18:45	0	17	0	0	1	0	0	0	0	0	0	0	0	18
19:00	0	14	0	0	0	0	0	0	0	0	0	0	0	14
19:15	0	11	2	0	0	0	0	0	0	0	0	0	0	13
19:30	0	14	2	0	0	0	0	0	0	0	0	0	0	16
19:45	0	7	0	0	0	0	0	0	0	0	0	0	0	7
20:00	0	12	0	0	0	0	0	0	0	0	0	0	0	12
20:15	0	5	0	0	0	0	0	0	0	0	0	0	0	5
20:30	0	10	0	0	0	0	0	0	0	0	0	0	0	10
20:45	0	4	1	0	0	0	0	0	0	0	0	0	0	5
21:00	0	12	0	0	0	0	0	0	0	0	0	0	0	12
21:15	0	5	0	0	1	0	0	0	0	0	0	0	0	6
21:30	0	6	0	0	0	0	0	0	0	0	0	0	0	6
21:45	0	7	0	0	0	0	0	0	0	0	0	0	0	7
22:00	0	3	0	0	0	0	0	0	0	0	0	0	0	3
22:15	0	3	1	0	0	0	0	0	0	0	0	0	0	4
22:30	0	2	0	0	0	0	0	0	0	0	0	0	0	2
22:45	0	3	0	0	0	0	0	0	0	0	0	0	0	3
23:00	0	5	1	0	0	0	0	0	0	0	0	0	0	6
23:15	0	1	0	0	0	0	0	0	0	0	0	0	0	1
23:30	0	1	0	0	0	0	0	0	0	0	0	0	0	1
23:45	0	2	1	0	0	0	0	0	0	0	0	0	0	3
Totals	3	957	181	15	77	8	2	8	3	2				1256
% of Totals	0%	76%	14%	1%	6%	1%	0%	1%	0%	0%				100%

AM Volumes	3	390	101	8	42	4	1	4	3	1	0	0	0	557
% AM	0%	31%	8%	1%	3%	0%	0%	0%	0%	0%				44%
AM Peak Hour	06:45	07:15	10:15	09:00	09:30	07:30	11:00	07:30	07:45	09:30				07:15
Volume	1	76	22	3	12	2	1	2	2	1				103
PM Volumes	0	567	80	7	35	4	1	4	0	1	0	0	0	699
% PM		45%	6%	1%	3%	0%	0%	0%		0%				56%
PM Peak Hour		15:30	12:15	12:30	13:15	13:15	12:45	12:15		17:30				15:30
Volume		77	15	3	9	2	1	2		1				102

Directional Peak Periods	**AM 7-9**			**NOON 12-2**			**PM 4-6**			**Off Peak Volumes**		
All Classes	Volume		%	Volume		%	Volume		%	Volume		%
	194	⟷	15%	164	⟷	13%	164	⟷	13%	734	⟷	58%

Classification Definitions

1	Motorcycles	**4**	Buses	**7**	> =4-Axle Single Units	**10**	>=6-Axle Single Trailers	**13**	>=7-Axle Multi-Trailers
2	Passenger Cars	**5**	2-Axle, 6-Tire Single Units	**8**	<=4-Axle Single Trailers	**11**	<=5-Axle Multi-Trailers		
3	2-Axle, 4-Tire Single Units	**6**	3-Axle Single Units	**9**	5-Axle Single Trailers	**12**	6-Axle Multi-Trailers		

Prepared by National Data & Surveying Services

CLASSIFICATION

Radford Ave Bet. Wyandotte St & Sherman Rd

Day: Wednesday
Date: 3/7/2018

City: North Hollywood
Project #: CA18_5144_005

Summary

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
00:00 AM	0	4	1	0	0	0	0	0	0	0	0	0	0	**5**
00:15	0	12	1	0	0	0	0	0	0	0	0	0	0	**13**
00:30	0	5	0	0	0	0	0	0	0	0	0	0	0	**5**
00:45	0	7	1	0	0	0	0	0	0	0	0	0	0	**8**
01:00	0	7	0	0	0	0	0	0	0	0	0	0	0	**7**
01:15	0	2	0	0	0	0	0	0	0	0	0	0	0	**2**
01:30	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
01:45	0	2	0	0	0	0	0	0	0	0	0	0	0	**2**
02:00	0	3	0	0	0	0	0	0	0	0	0	0	0	**3**
02:15	0	4	0	0	0	0	0	0	0	0	0	0	0	**4**
02:30	0	2	0	0	0	0	0	0	0	0	0	0	0	**2**
02:45	0	7	0	0	0	0	0	0	0	0	0	0	0	**7**
03:00	0	2	0	0	1	0	0	0	0	0	0	0	0	**3**
03:15	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
03:30	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
03:45	0	4	1	0	0	0	0	0	0	0	0	0	0	**5**
04:00	0	3	0	0	1	0	0	0	0	0	0	0	0	**4**
04:15	0	0	1	0	0	0	0	0	0	0	0	0	0	**1**
04:30	0	2	0	0	0	0	0	0	0	0	0	0	0	**2**
04:45	0	7	2	0	0	0	0	0	0	0	0	0	0	**9**
05:00	0	8	0	0	2	0	0	0	0	0	0	0	0	**10**
05:15	0	12	1	0	1	0	0	0	0	0	0	0	0	**14**
05:30	0	15	1	0	2	0	0	0	0	0	0	0	0	**18**
05:45	0	29	8	0	1	0	0	0	0	0	0	0	0	**38**
06:00	0	15	6	0	2	0	0	0	0	0	0	0	0	**23**
06:15	0	13	3	0	4	0	0	0	0	0	0	0	0	**20**
06:30	0	21	6	1	1	0	0	1	0	0	0	0	0	**30**
06:45	0	31	10	0	1	0	0	0	1	0	0	0	0	**43**
07:00	0	23	3	0	3	0	0	0	0	0	0	0	0	**29**
07:15	0	26	9	1	1	0	0	0	0	0	0	0	0	**37**
07:30	1	22	5	0	4	1	0	0	0	0	0	0	0	**33**
07:45	0	41	8	0	2	1	0	0	1	0	0	0	0	**53**
08:00	0	49	8	1	6	0	0	1	0	0	0	0	0	**65**
08:15	0	31	6	0	5	1	0	1	0	0	0	0	0	**44**
08:30	0	34	6	0	3	0	0	0	1	0	0	0	0	**44**
08:45	1	34	11	1	5	0	0	0	0	0	0	0	0	**52**
09:00	0	20	11	1	1	0	0	0	0	0	0	0	0	**33**
09:15	0	28	8	1	4	0	0	0	0	0	0	0	0	**41**
09:30	0	22	7	1	4	1	0	0	0	0	0	0	0	**35**
09:45	0	29	4	1	6	0	0	2	0	0	0	0	0	**42**
10:00	0	24	2	0	3	0	0	0	0	0	0	0	0	**29**
10:15	0	31	8	1	12	0	0	0	0	1	0	0	0	**53**
10:30	0	30	8	1	4	0	0	1	0	0	0	0	0	**44**
10:45	0	24	6	3	2	0	0	1	0	0	0	0	0	**36**
11:00	0	30	12	1	3	1	0	0	0	0	0	0	0	**47**
11:15	0	27	9	1	1	1	0	1	0	0	0	0	0	**40**
11:30	1	26	6	1	3	1	0	0	0	0	0	0	0	**38**
11:45	0	37	5	1	5	1	1	0	0	0	0	0	0	**50**
12:00 PM	0	38	7	1	4	0	0	1	0	0	0	0	0	**51**
12:15	0	24	6	0	2	0	0	0	0	0	0	0	0	**32**
12:30	0	28	5	1	3	1	0	0	0	0	0	0	0	**38**
12:45	0	34	6	2	4	0	0	4	0	0	0	0	0	**50**
13:00	0	32	6	2	6	1	0	2	0	0	0	0	0	**49**
13:15	1	29	9	1	7	0	0	1	0	0	0	0	0	**48**
13:30	0	35	4	0	0	0	1	0	0	0	0	0	0	**40**
13:45	0	33	6	1	9	1	0	0	0	0	0	0	0	**50**
14:00	0	29	10	0	8	1	0	1	0	0	0	0	0	**49**
14:15	0	28	4	0	4	0	1	2	0	0	0	0	0	**39**
14:30	0	32	8	0	4	0	0	0	0	0	0	0	0	**44**
14:45	0	38	7	0	2	0	0	0	0	0	0	0	0	**47**
15:00	0	28	10	3	2	0	0	2	0	0	0	0	0	**45**
15:15	0	28	3	1	3	0	0	0	0	0	0	0	0	**35**
15:30	0	38	10	1	4	0	0	0	0	0	0	0	0	**53**
15:45	0	48	10	1	4	0	0	0	0	0	0	0	0	**63**
16:00	0	45	5	0	5	0	0	0	0	0	0	0	0	**55**
16:15	0	46	13	0	4	0	0	1	0	0	0	0	0	**64**
16:30	0	39	7	1	2	0	0	0	0	0	0	0	0	**49**
16:45	0	44	3	0	5	0	0	1	0	0	0	0	0	**53**
17:00	0	43	5	0	2	2	0	2	0	0	0	0	0	**54**
17:15	1	30	6	0	2	0	0	1	0	0	0	0	0	**40**
17:30	0	34	4	0	3	1	0	0	0	0	0	0	0	**42**
17:45	0	36	5	0	5	0	0	0	0	0	0	0	0	**46**
18:00	0	48	8	0	2	0	0	0	0	0	0	0	0	**58**
18:15	0	43	7	0	1	0	0	1	0	1	0	0	0	**53**
18:30	0	30	2	0	1	0	0	1	0	0	0	0	0	**34**
18:45	0	39	1	0	2	0	0	0	0	0	0	0	0	**42**
19:00	0	23	2	0	0	0	0	0	0	0	0	0	0	**25**
19:15	0	26	3	0	1	0	0	0	0	0	0	0	0	**30**
19:30	0	27	2	0	0	0	0	0	0	0	0	0	0	**29**
19:45	0	22	1	0	0	0	0	0	0	0	0	0	0	**23**
20:00	0	25	2	0	1	0	0	0	0	0	0	0	0	**28**
20:15	0	18	1	0	0	0	0	0	0	0	0	0	0	**19**
20:30	0	27	2	0	0	0	0	0	0	0	0	0	0	**29**
20:45	0	16	1	0	0	0	0	0	0	0	0	0	0	**17**
21:00	0	29	0	0	0	0	0	0	0	0	0	0	0	**29**
21:15	0	15	0	0	1	0	0	0	0	0	0	0	0	**16**
21:30	0	16	0	0	0	0	0	0	0	0	0	0	0	**16**
21:45	0	20	1	0	0	0	0	0	0	0	0	0	0	**21**
22:00	0	10	2	0	0	0	0	0	0	0	0	0	0	**12**
22:15	0	12	3	0	0	0	0	0	0	0	0	0	0	**15**
22:30	0	9	0	0	0	0	0	0	0	0	0	0	0	**9**
22:45	0	15	1	0	1	0	0	0	0	0	0	0	0	**17**
23:00	0	13	1	0	0	0	0	0	0	0	0	0	0	**14**
23:15	0	7	0	0	0	0	0	0	0	0	0	0	0	**7**
23:30	0	16	1	0	0	0	0	0	0	0	0	0	0	**17**
23:45	0	5	3	0	0	0	0	0	0	0	0	0	0	**8**
Totals	**5**	**2157**	**387**	**32**	**197**	**15**	**3**	**28**	**3**	**2**				**2829**
% of Totals	0%	76%	14%	1%	7%	1%	0%	1%	0%	0%				100%

AM Volumes	3	807	184	17	93	8	1	8	3	1	0	0	0	1125
% AM	0%	29%	7%	1%	3%	0%	0%	0%	0%	0%				40%
AM Peak Hour	06:45	07:45	08:45	10:15	09:30	11:00	11:00	09:45	07:45	09:30				07:45
Volume	1	155	37	6	25	4	1	3	2	1				206
PM Volumes	2	1350	203	15	104	7	2	20	0	1	0	0	0	1704
% PM	0%	48%	7%	1%	4%	0%	0%	1%		0%				60%
PM Peak Hour	12:30	15:45	15:30	12:30	13:45	16:45	13:30	12:30		17:30				15:30
Volume	1	178	38	6	25	3	2	7		1				235

Directional Peak Periods	**AM 7-9**			**NOON 12-2**			**PM 4-6**			**Off Peak Volumes**		
All Classes	Volume		%	Volume		%	Volume		%	Volume		%
	357	⟷	13%	358	⟷	13%	403	⟷	14%	1711	⟷	60%

Classification Definitions

1 Motorcycles
2 Passenger Cars
3 2-Axle, 4-Tire Single Units
4 Buses
5 2-Axle, 6-Tire Single Units
6 3-Axle Single Units
7 > =4-Axle Single Units
8 <=4-Axle Single Trailers
9 5-Axle Single Trailers
10 >=6-Axle Single Trailers
11 <=5-Axle Multi-Trailers
12 6-Axle Multi-Trailers
13 >=7-Axle Multi-Trailers

Prepared by National Data & Surveying Services

CLASSIFICATION

Radford Ave Bet. Wyandotte St & Sherman Rd

Day: Wednesday
Date: 3/7/2018

City: North Hollywood
Project #: CA18_5144_005n

North Bound

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
00:00 AM	0	22	2	0	0	0	0	0	0	0	0	0	0	**24**
01:00	0	8	0	0	0	0	0	0	0	0	0	0	0	**8**
02:00	0	11	0	0	0	0	0	0	0	0	0	0	0	**11**
03:00	0	5	0	0	1	0	0	0	0	0	0	0	0	**6**
04:00	0	4	2	0	1	0	0	0	0	0	0	0	0	**7**
05:00	0	32	5	0	5	0	0	0	0	0	0	0	0	**42**
06:00	0	42	12	1	4	0	0	0	0	0	0	0	0	**59**
07:00	0	38	11	0	4	1	0	0	0	0	0	0	0	**54**
08:00	0	84	12	2	11	0	0	0	0	0	0	0	0	**109**
09:00	0	52	16	1	5	1	0	2	0	0	0	0	0	**77**
10:00	0	55	9	4	14	0	0	2	0	0	0	0	0	**84**
11:00	0	64	14	1	6	2	0	0	0	0	0	0	0	**87**
12:00 PM	0	58	13	2	8	1	0	4	0	0	0	0	0	**86**
13:00	1	76	11	3	14	1	0	2	0	0	0	0	0	**108**
14:00	0	81	19	0	13	0	1	2	0	0	0	0	0	**116**
15:00	0	74	18	3	7	0	0	2	0	0	0	0	0	**104**
16:00	0	102	16	0	10	0	0	2	0	0	0	0	0	**130**
17:00	1	83	13	0	9	1	0	2	0	0	0	0	0	**109**
18:00	0	85	15	0	5	0	0	2	0	0	0	0	0	**107**
19:00	0	52	4	0	1	0	0	0	0	0	0	0	0	**57**
20:00	0	55	5	0	1	0	0	0	0	0	0	0	0	**61**
21:00	0	50	1	0	0	0	0	0	0	0	0	0	0	**51**
22:00	0	35	5	0	1	0	0	0	0	0	0	0	0	**41**
23:00	0	32	3	0	0	0	0	0	0	0	0	0	0	**35**
Totals	**2**	**1200**	**206**	**17**	**120**	**7**	**1**	**20**						**1573**
% of Totals	0%	76%	13%	1%	8%	0%	0%	1%						100%

AM Volumes	0	417	83	9	51	4	0	4	0	0	0	0	0	568
% AM		27%	5%	1%	3%	0%		0%						36%
AM Peak Hour		08:00	09:00	10:00	10:00	11:00		09:00						08:00
Volume		84	16	4	14	2		2						109
PM Volumes	2	783	123	8	69	3	1	16	0	0	0	0	0	1005
% PM	0%	50%	8%	1%	4%	0%	0%	1%						64%
PM Peak Hour	13:00	16:00	14:00	13:00	13:00	12:00	14:00	12:00						16:00
Volume	1	102	19	3	14	1	1	4						130

Directional Peak Periods **All Classes**	**AM 7-9**			**NOON 12-2**			**PM 4-6**			**Off Peak Volumes**		
	Volume		%	Volume		%	Volume		%	Volume		%
	163	⟷	10%	194	⟷	12%	239	⟷	15%	977	⟷	62%

Classification Definitions

1	Motorcycles	**4**	Buses	**7**	> =4-Axle Single Units	**10**	>=6-Axle Single Trailers	**13**	>=7-Axle Multi-Trailers
2	Passenger Cars	**5**	2-Axle, 6-Tire Single Units	**8**	<=4-Axle Single Trailers	**11**	<=5-Axle Multi-Trailers		
3	2-Axle, 4-Tire Single Units	**6**	3-Axle Single Units	**9**	5-Axle Single Trailers	**12**	6-Axle Multi-Trailers		

Prepared by National Data & Surveying Services

CLASSIFICATION

Radford Ave Bet. Wyandotte St & Sherman Rd

Day: Wednesday
Date: 3/7/2018

City: North Hollywood
Project #: CA18_5144_005s

South Bound

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
00:00 AM	0	6	1	0	0	0	0	0	0	0	0	0	0	**7**
01:00	0	4	0	0	0	0	0	0	0	0	0	0	0	**4**
02:00	0	5	0	0	0	0	0	0	0	0	0	0	0	**5**
03:00	0	2	1	0	0	0	0	0	0	0	0	0	0	**3**
04:00	0	8	1	0	0	0	0	0	0	0	0	0	0	**9**
05:00	0	32	5	0	1	0	0	0	0	0	0	0	0	**38**
06:00	0	38	13	0	4	0	0	1	1	0	0	0	0	**57**
07:00	1	74	14	1	6	1	0	0	1	0	0	0	0	**98**
08:00	1	64	19	0	8	1	0	2	1	0	0	0	0	**96**
09:00	0	47	14	3	10	0	0	0	0	0	0	0	0	**74**
10:00	0	54	15	1	7	0	0	0	0	1	0	0	0	**78**
11:00	1	56	18	3	6	2	1	1	0	0	0	0	0	**88**
12:00 PM	0	66	11	2	5	0	0	1	0	0	0	0	0	**85**
13:00	0	53	14	1	8	1	1	1	0	0	0	0	0	**79**
14:00	0	46	10	0	5	1	0	1	0	0	0	0	0	**63**
15:00	0	68	15	3	6	0	0	0	0	0	0	0	0	**92**
16:00	0	72	12	1	6	0	0	0	0	0	0	0	0	**91**
17:00	0	60	7	0	3	2	0	1	0	0	0	0	0	**73**
18:00	0	75	3	0	1	0	0	0	0	1	0	0	0	**80**
19:00	0	46	4	0	0	0	0	0	0	0	0	0	0	**50**
20:00	0	31	1	0	0	0	0	0	0	0	0	0	0	**32**
21:00	0	30	0	0	1	0	0	0	0	0	0	0	0	**31**
22:00	0	11	1	0	0	0	0	0	0	0	0	0	0	**12**
23:00	0	9	2	0	0	0	0	0	0	0	0	0	0	**11**
Totals	**3**	**957**	**181**	**15**	**77**	**8**	**2**	**8**	**3**	**2**				**1256**
% of Totals	0%	76%	14%	1%	6%	1%	0%	1%	0%	0%				100%

AM Volumes	3	390	101	8	42	4	1	4	3	1	0	0	0	557
% AM	0%	31%	8%	1%	3%	0%	0%	0%	0%	0%				44%
AM Peak Hour	07:00	07:00	08:00	09:00	09:00	11:00	11:00	08:00	06:00	10:00				07:00
Volume	1	74	19	3	10	2	1	2	1	1				98
PM Volumes	0	567	80	7	35	4	1	4	0	1	0	0	0	699
% PM		45%	6%	1%	3%	0%	0%	0%		0%				56%
PM Peak Hour		18:00	15:00	15:00	13:00	17:00	13:00	12:00		18:00				15:00
Volume		75	15	3	8	2	1	1		1				92

Directional Peak Periods	**AM 7-9**			**NOON 12-2**			**PM 4-6**			**Off Peak Volumes**		
All Classes	Volume		%	Volume		%	Volume		%	Volume		%
	194	⟷	15%	164	⟷	13%	164	⟷	13%	734	⟷	58%

Classification Definitions

1 Motorcycles
2 Passenger Cars
3 2-Axle, 4-Tire Single Units
4 Buses
5 2-Axle, 6-Tire Single Units
6 3-Axle Single Units
7 > =4-Axle Single Units
8 <=4-Axle Single Trailers
9 5-Axle Single Trailers
10 >=6-Axle Single Trailers
11 <=5-Axle Multi-Trailers
12 6-Axle Multi-Trailers
13 >=7-Axle Multi-Trailers

Prepared by National Data & Surveying Services

CLASSIFICATION

Radford Ave Bet. Wyandotte St & Sherman Rd

Day: Wednesday
Date: 3/7/2018

City: North Hollywood
Project #: CA18_5144_005

Summary

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
00:00 AM	0	28	3	0	0	0	0	0	0	0	0	0	0	**31**
01:00	0	12	0	0	0	0	0	0	0	0	0	0	0	**12**
02:00	0	16	0	0	0	0	0	0	0	0	0	0	0	**16**
03:00	0	7	1	0	1	0	0	0	0	0	0	0	0	**9**
04:00	0	12	3	0	1	0	0	0	0	0	0	0	0	**16**
05:00	0	64	10	0	6	0	0	0	0	0	0	0	0	**80**
06:00	0	80	25	1	8	0	0	1	1	0	0	0	0	**116**
07:00	1	112	25	1	10	2	0	0	1	0	0	0	0	**152**
08:00	1	148	31	2	19	1	0	2	1	0	0	0	0	**205**
09:00	0	99	30	4	15	1	0	2	0	0	0	0	0	**151**
10:00	0	109	24	5	21	0	0	2	0	1	0	0	0	**162**
11:00	1	120	32	4	12	4	1	1	0	0	0	0	0	**175**
12:00 PM	0	124	24	4	13	1	0	5	0	0	0	0	0	**171**
13:00	1	129	25	4	22	2	1	3	0	0	0	0	0	**187**
14:00	0	127	29	0	18	1	1	3	0	0	0	0	0	**179**
15:00	0	142	33	6	13	0	0	2	0	0	0	0	0	**196**
16:00	0	174	28	1	16	0	0	2	0	0	0	0	0	**221**
17:00	1	143	20	0	12	3	0	3	0	0	0	0	0	**182**
18:00	0	160	18	0	6	0	0	2	0	1	0	0	0	**187**
19:00	0	98	8	0	1	0	0	0	0	0	0	0	0	**107**
20:00	0	86	6	0	1	0	0	0	0	0	0	0	0	**93**
21:00	0	80	1	0	1	0	0	0	0	0	0	0	0	**82**
22:00	0	46	6	0	1	0	0	0	0	0	0	0	0	**53**
23:00	0	41	5	0	0	0	0	0	0	0	0	0	0	**46**
Totals	**5**	**2157**	**387**	**32**	**197**	**15**	**3**	**28**	**3**	**2**				**2829**
% of Totals	0%	76%	14%	1%	7%	1%	0%	1%	0%	0%				100%

AM Volumes	3	807	184	17	93	8	1	8	3	1	0	0	0	1125
% AM	0%	29%	7%	1%	3%	0%	0%	0%	0%	0%				40%
AM Peak Hour	07:00	08:00	11:00	10:00	10:00	11:00	11:00	08:00	06:00	10:00				08:00
Volume	1	148	32	5	21	4	1	2	1	1				205
PM Volumes	2	1350	203	15	104	7	2	20	0	1	0	0	0	1704
% PM	0%	48%	7%	1%	4%	0%	0%	1%		0%				60%
PM Peak Hour	13:00	16:00	15:00	15:00	13:00	17:00	13:00	12:00		18:00				16:00
Volume	1	174	33	6	22	3	1	5		1				221

Directional Peak Periods **All Classes**	**AM 7-9**			**NOON 12-2**			**PM 4-6**			**Off Peak Volumes**		
	Volume		%	Volume		%	Volume		%	Volume		%
	357	⟷	13%	358	⟷	13%	403	⟷	14%	1711	⟷	60%

Classification Definitions

1	Motorcycles	**4**	Buses	**7**	> =4-Axle Single Units	**10**	>=6-Axle Single Trailers	**13**	>=7-Axle Multi-Trailers
2	Passenger Cars	**5**	2-Axle, 6-Tire Single Units	**8**	<=4-Axle Single Trailers	**11**	<=5-Axle Multi-Trailers		
3	2-Axle, 4-Tire Single Units	**6**	3-Axle Single Units	**9**	5-Axle Single Trailers	**12**	6-Axle Multi-Trailers		

VOLUME

Radford Ave Bet. Wyandotte St & Sherman Rd

Day: Wednesday
Date: 3/7/2018

City: North Hollywood
Project #: CA18_5144_005

DAILY TOTALS	NB	SB	EB	WB	Total
	1,573	1,256	0	0	2,829

AM Period	NB		SB		EB	WB	TOTAL		PM Period	NB		SB		EB	WB	TOTAL	
00:00	4		1		0	0	5		12:00	29		22		0	0	51	
00:15	11		2		0	0	13		12:15	16		16		0	0	32	
00:30	4		1		0	0	5		12:30	16		22		0	0	38	
00:45	5	24	3	7	0	0	8	31	12:45	25	86	25	85	0	0	50	171
01:00	4		3		0	0	7		13:00	29		20		0	0	49	
01:15	2		0		0	0	2		13:15	31		17		0	0	48	
01:30	1		0		0	0	1		13:30	24		16		0	0	40	
01:45	1	8	1	4	0	0	2	12	13:45	24	108	26	79	0	0	50	187
02:00	3		0		0	0	3		14:00	31		18		0	0	49	
02:15	2		2		0	0	4		14:15	25		14		0	0	39	
02:30	1		1		0	0	2		14:30	27		17		0	0	44	
02:45	5	11	2	5	0	0	7	16	14:45	33	116	14	63	0	0	47	179
03:00	2		1		0	0	3		15:00	25		20		0	0	45	
03:15	0		0		0	0			15:15	21		14		0	0	35	
03:30	1		0		0	0	1		15:30	27		26		0	0	53	
03:45	3	6	2	3	0	0	5	9	15:45	31	104	32	92	0	0	63	196
04:00	2		2		0	0	4		16:00	33		22		0	0	55	
04:15	1		0		0	0	1		16:15	42		22		0	0	64	
04:30	1		1		0	0	2		16:30	25		24		0	0	49	
04:45	3	7	6	9	0	0	9	16	16:45	30	130	23	91	0	0	53	221
05:00	2		8		0	0	10		17:00	31		23		0	0	54	
05:15	8		6		0	0	14		17:15	26		14		0	0	40	
05:30	14		4		0	0	18		17:30	25		17		0	0	42	
05:45	18	42	20	38	0	0	38	80	17:45	27	109	19	73	0	0	46	182
06:00	10		13		0	0	23		18:00	38		20		0	0	58	
06:15	11		9		0	0	20		18:15	26		27		0	0	53	
06:30	14		16		0	0	30		18:30	19		15		0	0	34	
06:45	24	59	19	57	0	0	43	116	18:45	24	107	18	80	0	0	42	187
07:00	6		23		0	0	29		19:00	11		14		0	0	25	
07:15	12		25		0	0	37		19:15	17		13		0	0	30	
07:30	12		21		0	0	33		19:30	13		16		0	0	29	
07:45	24	54	29	98	0	0	53	152	19:45	16	57	7	50	0	0	23	107
08:00	37		28		0	0	65		20:00	16		12		0	0	28	
08:15	23		21		0	0	44		20:15	14		5		0	0	19	
08:30	23		21		0	0	44		20:30	19		10		0	0	29	
08:45	26	109	26	96	0	0	52	205	20:45	12	61	5	32	0	0	17	93
09:00	15		18		0	0	33		21:00	17		12		0	0	29	
09:15	21		20		0	0	41		21:15	10		6		0	0	16	
09:30	21		14		0	0	35		21:30	10		6		0	0	16	
09:45	20	77	22	74	0	0	42	151	21:45	14	51	7	31	0	0	21	82
10:00	18		11		0	0	29		22:00	9		3		0	0	12	
10:15	21		32		0	0	53		22:15	11		4		0	0	15	
10:30	25		19		0	0	44		22:30	7		2		0	0	9	
10:45	20	84	16	78	0	0	36	162	22:45	14	41	3	12	0	0	17	53
11:00	17		30		0	0	47		23:00	8		6		0	0	14	
11:15	20		20		0	0	40		23:15	6		1		0	0	7	
11:30	22		16		0	0	38		23:30	16		1		0	0	17	
11:45	28	87	22	88	0	0	50	175	23:45	5	35	3	11	0	0	8	46
TOTALS		568		557				**1125**	**TOTALS**		1005		699				**1704**
SPLIT %		50.5%		49.5%				**39.8%**	**SPLIT %**		59.0%		41.0%				**60.2%**

DAILY TOTALS	NB	SB	EB	WB	Total
	1,573	1,256	0	0	2,829

AM Peak Hour	08:00	07:15			**07:45**	**PM Peak Hour**	15:30	15:30			**15:30**
AM Pk Volume	109	103			**206**	**PM Pk Volume**	133	102			**235**
Pk Hr Factor	0.736	0.888			**0.792**	**Pk Hr Factor**	0.792	0.797			**0.918**
7 - 9 Volume	163	194	0	0	**357**	**4 - 6 Volume**	239	164	0	0	**403**
7 - 9 Peak Hour	08:00	07:15			**07:45**	**4 - 6 Peak Hour**	16:00	16:15			**16:00**
7 - 9 Pk Volume	109	103	0	0	**206**	**4 - 6 Pk Volume**	130	92	0	0	**221**
Pk Hr Factor	0.736	0.888	0.000	0.000	**0.792**	**Pk Hr Factor**	0.774	0.958	0.000	0.000	**0.863**

Prepared by National Data & Surveying Services

CLASSIFICATION

Sherman Way Bet. Hinds Ave & Lankershim Blvd

Day: Wednesday
Date: 3/7/2018

City: North Hollywood
Project #: CA18_5144_006e

East Bound

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
00:00 AM	0	36	6	0	0	0	0	0	0	0	0	0	0	**42**
00:15	0	48	6	0	3	0	0	0	0	0	0	0	0	**57**
00:30	0	29	5	0	1	0	0	0	0	0	0	0	0	**35**
00:45	0	23	4	0	2	0	0	0	0	0	0	0	0	**29**
01:00	0	23	2	0	2	0	0	1	0	0	0	0	0	**28**
01:15	0	19	4	0	1	0	0	0	0	0	0	0	0	**24**
01:30	0	23	4	0	2	0	0	0	1	0	0	0	0	**30**
01:45	0	16	5	0	2	0	0	0	0	0	0	0	0	**23**
02:00	0	24	1	0	0	0	0	0	0	0	0	0	0	**25**
02:15	0	16	2	0	0	0	0	0	0	0	0	0	0	**18**
02:30	0	21	2	0	1	0	0	0	0	0	0	0	0	**24**
02:45	0	19	3	0	0	0	0	0	0	0	0	0	0	**22**
03:00	0	23	3	0	2	0	0	0	0	0	0	0	0	**28**
03:15	0	20	3	0	0	0	0	0	0	0	0	0	0	**23**
03:30	0	19	2	0	1	0	0	0	0	0	0	0	0	**22**
03:45	0	43	7	0	7	0	0	0	0	0	0	0	0	**57**
04:00	0	31	6	0	1	0	1	1	0	0	0	0	0	**40**
04:15	0	32	7	0	2	0	0	0	0	0	0	0	0	**41**
04:30	0	50	12	1	3	0	0	0	2	0	0	0	0	**68**
04:45	0	86	11	1	8	0	0	1	0	0	0	0	0	**107**
05:00	0	59	7	0	1	0	0	0	1	0	0	0	0	**68**
05:15	0	61	16	0	2	0	0	0	2	0	0	0	0	**81**
05:30	0	111	18	0	9	0	0	0	2	0	0	0	0	**140**
05:45	0	158	25	1	12	0	0	0	1	0	1	0	0	**198**
06:00	1	80	16	0	12	0	0	0	0	0	0	0	0	**109**
06:15	1	98	23	1	8	0	0	0	1	0	0	0	0	**132**
06:30	1	110	24	1	18	0	0	0	0	0	0	0	0	**154**
06:45	1	194	43	1	22	2	0	0	2	0	0	0	0	**265**
07:00	0	136	30	0	13	0	0	0	0	0	0	0	0	**179**
07:15	1	189	38	2	17	1	0	0	2	0	0	0	0	**250**
07:30	1	172	38	1	18	2	0	0	1	0	0	0	0	**233**
07:45	1	227	46	1	21	2	0	1	1	0	0	0	0	**300**
08:00	1	212	46	2	23	1	0	2	2	0	1	0	0	**290**
08:15	4	190	37	1	14	2	0	1	1	0	1	0	0	**251**
08:30	1	184	34	0	13	2	0	1	0	0	0	0	0	**235**
08:45	0	215	45	3	20	1	0	1	2	0	0	0	0	**287**
09:00	1	155	30	1	15	0	0	1	1	0	0	0	0	**204**
09:15	0	168	36	3	16	4	0	0	5	0	1	0	0	**233**
09:30	0	171	33	1	17	2	0	0	1	0	0	0	0	**225**
09:45	1	165	38	0	18	0	0	0	2	0	0	0	0	**224**
10:00	1	153	38	0	17	0	0	0	2	0	0	0	0	**211**
10:15	0	183	31	0	19	2	0	0	0	0	0	0	0	**235**
10:30	0	147	33	1	18	0	0	1	0	0	0	0	0	**200**
10:45	2	182	38	2	22	1	0	0	0	0	0	0	0	**247**
11:00	0	158	32	1	15	0	0	0	1	0	0	0	0	**207**
11:15	1	169	37	1	9	1	0	1	1	0	0	0	0	**220**
11:30	2	178	36	1	18	1	0	0	2	0	0	0	0	**238**
11:45	2	173	37	1	15	3	0	1	0	0	0	0	0	**232**
12:00 PM	0	168	34	2	12	1	0	2	1	0	0	0	0	**220**
12:15	2	203	32	1	18	2	0	1	0	0	0	0	0	**259**
12:30	1	211	36	0	17	2	0	1	0	0	0	0	0	**268**
12:45	0	172	35	0	15	1	0	0	2	0	0	0	0	**225**
13:00	1	192	40	3	18	2	0	3	3	0	0	0	0	**262**
13:15	0	172	40	2	18	1	0	1	1	0	1	0	0	**236**
13:30	1	175	39	0	17	1	0	0	0	0	0	0	0	**233**
13:45	0	208	39	1	15	1	0	1	1	0	0	0	0	**266**
14:00	0	197	37	1	19	3	0	2	1	0	1	0	0	**261**
14:15	0	173	41	2	12	1	0	0	2	0	0	0	0	**231**
14:30	0	195	37	0	12	2	0	0	2	0	0	0	0	**248**
14:45	2	191	37	2	16	3	0	1	1	0	0	0	0	**253**
15:00	1	182	46	2	16	1	0	1	1	0	0	0	0	**250**
15:15	0	193	35	0	18	1	1	1	1	0	1	0	0	**251**
15:30	1	194	41	2	12	1	0	3	2	0	1	0	0	**257**
15:45	0	177	31	0	10	2	0	1	1	0	0	0	0	**222**
16:00	1	188	38	1	16	2	0	1	2	0	0	0	0	**249**
16:15	1	187	34	1	20	2	0	1	0	0	0	0	0	**246**
16:30	1	182	37	1	11	1	0	0	0	0	1	0	0	**234**
16:45	1	189	34	0	20	2	0	2	1	0	0	0	0	**249**
17:00	2	183	50	1	10	3	0	1	1	0	1	0	0	**252**
17:15	1	178	36	1	13	0	0	0	1	0	0	0	0	**230**
17:30	0	192	33	2	17	1	0	1	1	0	0	0	0	**247**
17:45	0	200	31	2	12	2	0	2	0	0	0	0	0	**249**
18:00	0	203	38	2	11	2	0	2	2	0	0	0	0	**260**
18:15	2	170	27	0	9	1	0	0	1	0	0	0	0	**210**
18:30	1	173	34	0	9	1	0	2	1	0	0	0	0	**221**
18:45	0	172	30	2	6	1	0	0	1	0	0	0	0	**212**
19:00	0	149	28	0	6	0	0	0	1	0	0	0	0	**184**
19:15	0	175	25	0	16	1	0	0	1	0	0	0	0	**218**
19:30	1	137	20	0	6	0	0	0	0	0	0	0	0	**164**
19:45	1	141	21	2	12	0	0	0	0	0	0	0	0	**177**
20:00	1	149	17	2	12	0	0	0	2	0	0	0	0	**183**
20:15	0	118	20	1	7	0	1	0	1	0	0	0	0	**148**
20:30	0	114	19	0	7	0	0	0	0	0	0	0	0	**140**
20:45	1	140	15	0	8	0	0	0	0	0	0	0	0	**164**
21:00	0	100	16	1	7	0	0	0	1	0	0	0	0	**125**
21:15	0	111	15	0	4	0	0	0	1	0	0	0	0	**131**
21:30	0	108	12	1	6	0	0	0	0	0	0	0	0	**127**
21:45	0	91	19	0	3	0	0	0	0	0	0	0	0	**113**
22:00	0	71	12	0	1	0	0	0	1	0	0	0	0	**85**
22:15	0	93	13	1	9	0	0	0	0	0	0	0	0	**116**
22:30	0	67	7	0	1	0	0	0	0	0	0	0	0	**75**
22:45	0	91	13	1	7	0	0	1	0	0	0	0	0	**113**
23:00	0	69	10	0	3	0	0	0	0	0	0	0	0	**82**
23:15	0	60	11	0	3	0	0	0	0	0	0	0	0	**74**
23:30	0	46	9	0	0	0	0	0	1	0	0	0	0	**56**
23:45	0	53	8	0	1	1	0	0	0	0	0	0	0	**63**
Totals	**46**	**12302**	**2332**	**68**	**978**	**72**	**3**	**44**	**75**		**10**			**15930**
% of Totals	0%	77%	15%	0%	6%	0%	0%	0%	0%		0%			100%

AM Volumes	23	4999	1000	28	460	27	1	13	36	0	4	0	0	6591
% AM	0%	31%	6%	0%	3%	0%	0%	0%	0%		0%			41%
AM Peak Hour	07:30	07:45	07:15	08:45	07:15	11:45	03:15	07:45	09:15		07:30			07:45
Volume	7	813	168	8	79	8	1	5	10		2			1076
PM Volumes	23	7303	1332	40	518	45	2	31	39	0	6	0	0	9339
% PM	0%	46%	8%	0%	3%	0%	0%	0%	0%		0%			59%
PM Peak Hour	16:15	12:15	14:15	17:15	13:15	14:00	14:30	14:45	12:30		13:15			12:15
Volume	5	778	161	7	69	9	1	6	6		2			1014

Directional Peak Periods	**AM 7-9**		**NOON 12-2**		**PM 4-6**		**Off Peak Volumes**	
All Classes	Volume	%	Volume	%	Volume	%	Volume	%
	2025 ⟷	13%	1969 ⟷	12%	1956 ⟷	12%	9980 ⟷	63%

Classification Definitions

1 Motorcycles
2 Passenger Cars
3 2-Axle, 4-Tire Single Units
4 Buses
5 2-Axle, 6-Tire Single Units
6 3-Axle Single Units
7 > =4-Axle Single Units
8 <=4-Axle Single Trailers
9 5-Axle Single Trailers
10 >=6-Axle Single Trailers
11 <=5-Axle Multi-Trailers
12 6-Axle Multi-Trailers
13 >=7-Axle Multi-Trailers

Prepared by National Data & Surveying Services

CLASSIFICATION

Sherman Way Bet. Hinds Ave & Lankershim Blvd

Day: Wednesday
Date: 3/7/2018

City: North Hollywood
Project #: CA18_5144_006w

West Bound

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
00:00 AM	0	56	7	0	3	0	0	0	0	0	0	0	0	**66**
00:15	0	34	4	0	3	0	0	0	0	0	0	0	0	**41**
00:30	0	35	3	0	1	0	0	0	0	0	0	0	0	**39**
00:45	0	23	1	0	0	0	0	0	0	0	0	0	0	**24**
01:00	0	31	4	0	1	0	0	0	0	0	0	0	0	**36**
01:15	0	19	1	0	1	0	0	0	0	0	0	0	0	**21**
01:30	0	36	0	0	1	0	0	0	0	0	0	0	0	**37**
01:45	0	23	0	0	1	0	0	0	1	0	0	0	0	**25**
02:00	0	15	2	0	1	0	0	0	0	0	0	0	0	**18**
02:15	1	12	2	0	0	0	0	0	0	0	0	0	0	**15**
02:30	0	19	0	0	0	0	0	0	0	0	0	0	0	**19**
02:45	0	11	0	0	0	0	0	0	0	0	0	0	0	**11**
03:00	0	11	1	0	1	0	0	0	0	0	0	0	0	**13**
03:15	0	19	5	0	1	0	0	0	1	0	0	0	0	**26**
03:30	0	15	1	0	2	0	0	0	0	0	0	0	0	**18**
03:45	0	17	0	0	0	0	0	0	0	0	0	0	0	**17**
04:00	0	12	6	0	0	0	0	0	0	0	0	0	0	**18**
04:15	0	28	1	0	1	0	0	0	1	0	0	0	0	**31**
04:30	0	27	5	0	3	1	0	0	0	0	0	0	0	**36**
04:45	0	48	9	0	3	0	0	0	0	0	0	0	0	**60**
05:00	0	40	7	0	4	0	0	0	0	0	0	0	0	**51**
05:15	0	75	14	0	11	0	0	0	0	0	0	0	0	**100**
05:30	0	103	22	1	7	0	0	0	1	0	0	0	0	**134**
05:45	0	95	25	1	14	3	0	0	0	0	0	0	0	**138**
06:00	0	97	22	2	18	0	0	0	3	0	0	0	0	**142**
06:15	1	94	21	0	13	0	0	0	0	0	0	0	0	**129**
06:30	0	142	26	1	17	1	0	0	2	0	0	0	0	**189**
06:45	0	142	29	2	17	1	0	0	0	0	0	0	0	**191**
07:00	0	142	27	0	9	0	0	0	0	0	0	0	0	**178**
07:15	0	128	36	2	8	1	0	0	1	0	0	0	0	**176**
07:30	1	171	45	2	8	0	0	0	0	0	0	0	0	**227**
07:45	1	159	36	1	15	0	0	0	1	0	0	0	0	**213**
08:00	1	148	35	1	10	1	0	1	0	0	0	0	0	**197**
08:15	2	152	40	2	14	0	0	0	1	0	0	0	0	**211**
08:30	0	141	40	0	12	1	0	1	1	0	0	0	0	**196**
08:45	0	133	35	0	15	0	0	2	1	0	0	0	0	**186**
09:00	0	126	25	1	21	1	0	1	2	0	0	0	0	**177**
09:15	1	135	38	1	25	0	0	0	0	0	0	0	0	**200**
09:30	1	138	30	2	11	0	0	1	2	0	0	0	0	**185**
09:45	1	172	38	2	14	0	1	2	0	0	0	0	0	**230**
10:00	1	153	38	0	8	2	1	1	1	0	0	0	0	**205**
10:15	0	160	36	0	14	0	0	0	1	0	0	0	0	**211**
10:30	0	148	42	1	13	0	0	1	3	0	0	0	0	**208**
10:45	0	166	38	2	13	0	0	1	2	0	0	0	0	**222**
11:00	0	169	31	1	10	2	0	0	0	0	0	0	0	**213**
11:15	0	173	39	1	13	0	0	0	0	0	0	0	0	**226**
11:30	1	173	29	2	19	0	0	0	1	0	0	0	0	**225**
11:45	1	194	38	2	19	0	0	0	0	0	0	0	0	**254**
12:00 PM	0	179	37	1	14	1	0	1	2	0	0	0	0	**235**
12:15	0	188	43	1	12	1	0	0	0	0	0	0	0	**245**
12:30	0	216	34	1	13	2	0	1	1	0	0	0	0	**268**
12:45	1	185	39	0	17	0	1	0	2	0	0	0	0	**245**
13:00	0	188	40	1	16	2	1	0	2	0	0	0	0	**250**
13:15	1	170	40	2	19	0	0	0	0	0	0	0	0	**232**
13:30	1	198	34	2	19	2	0	1	1	0	0	0	0	**258**
13:45	1	192	37	1	12	1	0	0	1	0	0	0	0	**245**
14:00	1	215	39	1	13	1	0	2	1	0	0	0	0	**273**
14:15	1	208	39	0	16	0	0	0	2	0	0	0	0	**266**
14:30	0	227	55	0	17	0	0	1	0	0	0	0	0	**300**
14:45	1	199	33	2	17	0	0	0	3	0	0	0	0	**255**
15:00	0	176	32	2	10	1	0	0	1	0	0	0	0	**222**
15:15	1	189	43	0	11	0	0	0	1	0	0	0	0	**245**
15:30	1	241	48	0	12	0	0	1	0	0	0	0	0	**303**
15:45	3	188	42	1	19	1	1	1	1	0	0	0	0	**257**
16:00	1	180	36	1	9	1	0	0	1	0	0	0	0	**229**
16:15	1	192	33	0	13	0	0	0	1	0	0	0	0	**240**
16:30	2	212	35	2	14	0	0	0	0	0	0	0	0	**265**
16:45	1	191	28	0	12	0	0	0	1	0	0	0	0	**233**
17:00	0	217	42	1	8	0	0	0	0	0	0	0	0	**268**
17:15	1	183	37	1	11	0	0	0	2	0	0	0	0	**235**
17:30	1	174	38	1	10	0	0	0	0	0	0	0	0	**224**
17:45	0	180	30	1	9	0	0	0	1	0	0	0	0	**221**
18:00	1	214	25	0	8	0	0	0	1	0	0	0	0	**249**
18:15	0	196	22	0	7	1	0	0	0	0	0	0	0	**226**
18:30	1	147	23	1	11	0	0	0	0	0	0	0	0	**183**
18:45	0	154	18	0	6	0	0	0	0	0	0	0	0	**178**
19:00	0	172	21	0	5	0	0	0	0	0	0	0	0	**198**
19:15	1	166	22	1	5	0	0	0	0	0	0	0	0	**195**
19:30	0	154	20	1	11	0	0	0	0	0	0	0	0	**186**
19:45	0	130	24	1	4	0	0	0	1	0	0	0	0	**160**
20:00	0	119	19	0	3	0	0	0	0	0	0	0	0	**141**
20:15	0	110	23	0	4	0	0	0	1	0	0	0	0	**138**
20:30	0	117	14	0	4	0	0	0	0	0	0	0	0	**135**
20:45	0	100	8	0	2	0	0	0	0	0	0	0	0	**110**
21:00	0	135	14	0	4	0	0	0	0	0	0	0	0	**153**
21:15	0	107	14	0	5	0	0	0	0	0	0	0	0	**126**
21:30	0	91	10	0	3	0	0	0	0	0	0	0	0	**104**
21:45	0	83	10	0	3	0	0	0	1	0	0	0	0	**97**
22:00	0	98	13	0	6	0	0	0	1	0	0	0	0	**118**
22:15	0	77	7	0	2	1	0	0	0	0	0	0	0	**87**
22:30	1	81	12	0	2	0	0	0	0	0	0	0	0	**96**
22:45	0	76	4	0	2	0	0	0	1	0	0	0	0	**83**
23:00	0	62	7	0	1	0	0	0	0	0	0	0	0	**70**
23:15	0	59	7	0	3	0	0	0	0	0	0	0	0	**69**
23:30	0	62	5	0	2	0	0	0	0	0	0	0	0	**69**
23:45	1	48	4	0	1	0	0	0	0	0	0	0	0	**54**
Totals	**37**	**11806**	**2194**	**56**	**822**	**29**	**5**	**19**	**56**					**15024**
% of Totals	0%	79%	15%	0%	5%	0%	0%	0%	0%					100%

AM Volumes	13	4360	934	30	395	14	2	11	26	0	0	0	0	5785
% AM	0%	29%	6%	0%	3%	0%	0%	0%	0%					39%
AM Peak Hour	07:30	11:45	07:30	06:45	08:30	05:45	09:15	08:00	10:00					11:45
Volume	5	777	156	6	73	4	2	4	7					1002
PM Volumes	24	7446	1260	26	427	15	3	8	30	0	0	0	0	9239
% PM	0%	50%	8%	0%	3%	0%	0%	0%	0%					61%
PM Peak Hour	15:45	14:00	13:45	13:00	12:45	12:15	12:15	13:15	14:00					14:00
Volume	7	849	170	6	71	5	2	3	6					1094

Directional Peak Periods	**AM 7-9**			**NOON 12-2**			**PM 4-6**			**Off Peak Volumes**		
All Classes	Volume		%	Volume		%	Volume		%	Volume		%
	1584	⟷	11%	1978	⟷	13%	1915	⟷	13%	9547	⟷	64%

Classification Definitions

1	Motorcycles	**4**	Buses	**7**	> =4-Axle Single Units	**10**	>=6-Axle Single Trailers	**13**	>=7-Axle Multi-Trailers
2	Passenger Cars	**5**	2-Axle, 6-Tire Single Units	**8**	<=4-Axle Single Trailers	**11**	<=5-Axle Multi-Trailers		
3	2-Axle, 4-Tire Single Units	**6**	3-Axle Single Units	**9**	5-Axle Single Trailers	**12**	6-Axle Multi-Trailers		

Prepared by National Data & Surveying Services

CLASSIFICATION

Sherman Way Bet. Hinds Ave & Lankershim Blvd

Day: Wednesday
Date: 3/7/2018

City: North Hollywood
Project #: CA18_5144_006

Summary

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
00:00 AM	0	92	13	0	3	0	0	0	0	0	0	0	0	**108**
00:15	0	82	10	0	6	0	0	0	0	0	0	0	0	**98**
00:30	0	64	8	0	2	0	0	0	0	0	0	0	0	**74**
00:45	0	46	5	0	2	0	0	0	0	0	0	0	0	**53**
01:00	0	54	6	0	3	0	0	1	0	0	0	0	0	**64**
01:15	0	38	5	0	2	0	0	0	0	0	0	0	0	**45**
01:30	0	59	4	0	3	0	0	0	1	0	0	0	0	**67**
01:45	0	39	5	0	3	0	0	0	1	0	0	0	0	**48**
02:00	0	39	3	0	1	0	0	0	0	0	0	0	0	**43**
02:15	1	28	4	0	0	0	0	0	0	0	0	0	0	**33**
02:30	0	40	2	0	1	0	0	0	0	0	0	0	0	**43**
02:45	0	30	3	0	0	0	0	0	0	0	0	0	0	**33**
03:00	0	34	4	0	3	0	0	0	0	0	0	0	0	**41**
03:15	0	39	8	0	1	0	0	0	1	0	0	0	0	**49**
03:30	0	34	3	0	3	0	0	0	0	0	0	0	0	**40**
03:45	0	60	7	0	7	0	0	0	0	0	0	0	0	**74**
04:00	0	43	12	0	1	0	1	1	0	0	0	0	0	**58**
04:15	0	60	8	0	3	0	0	0	1	0	0	0	0	**72**
04:30	0	77	17	1	6	1	0	0	2	0	0	0	0	**104**
04:45	0	134	20	1	11	0	0	1	0	0	0	0	0	**167**
05:00	0	99	14	0	5	0	0	0	1	0	0	0	0	**119**
05:15	0	136	30	0	13	0	0	0	2	0	0	0	0	**181**
05:30	0	214	40	1	16	0	0	0	3	0	0	0	0	**274**
05:45	0	253	50	2	26	3	0	0	1	0	1	0	0	**336**
06:00	1	177	38	2	30	0	0	0	3	0	0	0	0	**251**
06:15	2	192	44	1	21	0	0	0	1	0	0	0	0	**261**
06:30	1	252	50	2	35	1	0	0	2	0	0	0	0	**343**
06:45	1	336	72	3	39	3	0	0	2	0	0	0	0	**456**
07:00	0	278	57	0	22	0	0	0	0	0	0	0	0	**357**
07:15	1	317	74	4	25	2	0	0	3	0	0	0	0	**426**
07:30	2	343	83	3	26	2	0	0	1	0	0	0	0	**460**
07:45	2	386	82	2	36	2	0	1	2	0	0	0	0	**513**
08:00	2	360	81	3	33	2	0	3	2	0	1	0	0	**487**
08:15	6	342	77	3	28	2	0	1	2	0	1	0	0	**462**
08:30	1	325	74	0	25	3	0	2	1	0	0	0	0	**431**
08:45	0	348	80	3	35	1	0	3	3	0	0	0	0	**473**
09:00	1	281	55	2	36	1	0	2	3	0	0	0	0	**381**
09:15	1	303	74	4	41	4	0	0	5	0	1	0	0	**433**
09:30	1	309	63	3	28	2	0	1	3	0	0	0	0	**410**
09:45	2	337	76	2	32	0	1	2	2	0	0	0	0	**454**
10:00	2	306	76	0	25	2	1	1	3	0	0	0	0	**416**
10:15	0	343	67	0	33	2	0	0	1	0	0	0	0	**446**
10:30	0	295	75	2	31	0	0	2	3	0	0	0	0	**408**
10:45	2	348	76	4	35	1	0	1	2	0	0	0	0	**469**
11:00	0	327	63	2	25	2	0	0	1	0	0	0	0	**420**
11:15	1	342	76	2	22	1	0	1	1	0	0	0	0	**446**
11:30	3	351	65	3	37	1	0	0	3	0	0	0	0	**463**
11:45	3	367	75	3	34	3	0	1	0	0	0	0	0	**486**
12:00 PM	0	347	71	3	26	2	0	3	3	0	0	0	0	**455**
12:15	2	391	75	2	30	3	0	1	0	0	0	0	0	**504**
12:30	1	427	70	1	30	4	0	2	1	0	0	0	0	**536**
12:45	1	357	74	0	32	1	1	0	4	0	0	0	0	**470**
13:00	1	380	80	4	34	4	1	3	5	0	0	0	0	**512**
13:15	1	342	80	4	37	1	0	1	1	0	1	0	0	**468**
13:30	2	373	73	2	36	3	0	1	1	0	0	0	0	**491**
13:45	1	400	76	2	27	2	0	1	2	0	0	0	0	**511**
14:00	1	412	76	2	32	4	0	4	2	0	1	0	0	**534**
14:15	1	381	80	2	28	1	0	0	4	0	0	0	0	**497**
14:30	0	422	92	0	29	2	0	1	2	0	0	0	0	**548**
14:45	3	390	70	4	33	3	0	1	4	0	0	0	0	**508**
15:00	1	358	78	4	26	2	0	1	2	0	0	0	0	**472**
15:15	1	382	78	0	29	1	1	1	2	0	1	0	0	**496**
15:30	2	435	89	2	24	1	0	4	2	0	1	0	0	**560**
15:45	3	365	73	1	29	3	1	2	2	0	0	0	0	**479**
16:00	2	368	74	2	25	3	0	1	3	0	0	0	0	**478**
16:15	2	379	67	1	33	2	0	1	1	0	0	0	0	**486**
16:30	3	394	72	3	25	1	0	0	0	0	1	0	0	**499**
16:45	2	380	62	0	32	2	0	2	2	0	0	0	0	**482**
17:00	2	400	92	2	18	3	0	1	1	0	1	0	0	**520**
17:15	2	361	73	2	24	0	0	0	3	0	0	0	0	**465**
17:30	1	366	71	3	27	1	0	1	1	0	0	0	0	**471**
17:45	0	380	61	3	21	2	0	2	1	0	0	0	0	**470**
18:00	1	417	63	2	19	2	0	2	3	0	0	0	0	**509**
18:15	2	366	49	0	16	2	0	0	1	0	0	0	0	**436**
18:30	2	320	57	1	20	1	0	2	1	0	0	0	0	**404**
18:45	0	326	48	2	12	1	0	0	1	0	0	0	0	**390**
19:00	0	321	49	0	11	0	0	0	1	0	0	0	0	**382**
19:15	1	341	47	1	21	1	0	0	1	0	0	0	0	**413**
19:30	1	291	40	1	17	0	0	0	0	0	0	0	0	**350**
19:45	1	271	45	3	16	0	0	0	1	0	0	0	0	**337**
20:00	1	268	36	2	15	0	0	0	2	0	0	0	0	**324**
20:15	0	228	43	1	11	0	1	0	2	0	0	0	0	**286**
20:30	0	231	33	0	11	0	0	0	0	0	0	0	0	**275**
20:45	1	240	23	0	10	0	0	0	0	0	0	0	0	**274**
21:00	0	235	30	1	11	0	0	0	1	0	0	0	0	**278**
21:15	0	218	29	0	9	0	0	0	1	0	0	0	0	**257**
21:30	0	199	22	1	9	0	0	0	0	0	0	0	0	**231**
21:45	0	174	29	0	6	0	0	0	1	0	0	0	0	**210**
22:00	0	169	25	0	7	0	0	0	2	0	0	0	0	**203**
22:15	0	170	20	1	11	1	0	0	0	0	0	0	0	**203**
22:30	1	148	19	0	3	0	0	0	0	0	0	0	0	**171**
22:45	0	167	17	1	9	0	0	1	1	0	0	0	0	**196**
23:00	0	131	17	0	4	0	0	0	0	0	0	0	0	**152**
23:15	0	119	18	0	6	0	0	0	0	0	0	0	0	**143**
23:30	0	108	14	0	2	0	0	0	1	0	0	0	0	**125**
23:45	1	101	12	0	2	1	0	0	0	0	0	0	0	**117**
Totals	**83**	**24108**	**4526**	**124**	**1800**	**101**	**8**	**63**	**131**		**10**			**30954**
% of Totals	0%	78%	15%	0%	6%	0%	0%	0%	0%		0%			100%

AM Volumes	36	9359	1934	58	855	41	3	24	62	0	4	0	0	12376
% AM	0%	30%	6%	0%	3%	0%	0%	0%	0%		0%			40%
AM Peak Hour	07:30	11:45	07:30	07:15	08:45	11:45	09:15	08:00	08:45		07:30			11:45
Volume	12	1532	323	12	140	12	2	9	14		2			1981
PM Volumes	47	14749	2592	66	945	60	5	39	69	0	6	0	0	18578
% PM	0%	48%	8%	0%	3%	0%	0%	0%	0%		0%			60%
PM Peak Hour	15:45	13:45	13:45	13:00	12:45	12:15	12:15	15:00	14:00		13:15			13:45
Volume	10	1615	324	12	139	12	2	8	12		2			2090

Directional Peak Periods	**AM 7-9**			**NOON 12-2**			**PM 4-6**			**Off Peak Volumes**		
All Classes	Volume		%	Volume		%	Volume		%	Volume		%
	3609	↔	12%	3947	↔	13%	3871	↔	13%	19527	↔	63%

Classification Definitions

1	Motorcycles	**4**	Buses	**7**	> =4-Axle Single Units	**10**	>=6-Axle Single Trailers	**13**	>=7-Axle Multi-Trailers
2	Passenger Cars	**5**	2-Axle, 6-Tire Single Units	**8**	<=4-Axle Single Trailers	**11**	<=5-Axle Multi-Trailers		
3	2-Axle, 4-Tire Single Units	**6**	3-Axle Single Units	**9**	5-Axle Single Trailers	**12**	6-Axle Multi-Trailers		

Prepared by National Data & Surveying Services

CLASSIFICATION

Sherman Way Bet. Hinds Ave & Lankershim Blvd

Day: Wednesday
Date: 3/7/2018

City: North Hollywood
Project #: CA18_5144_006e

East Bound

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
00:00 AM	0	136	21	0	6	0	0	0	0	0	0	0	0	**163**
01:00	0	81	15	0	7	0	0	1	1	0	0	0	0	**105**
02:00	0	80	8	0	1	0	0	0	0	0	0	0	0	**89**
03:00	0	105	15	0	10	0	0	0	0	0	0	0	0	**130**
04:00	0	199	36	2	14	0	1	2	2	0	0	0	0	**256**
05:00	0	389	66	1	24	0	0	0	6	0	1	0	0	**487**
06:00	4	482	106	3	60	2	0	0	3	0	0	0	0	**660**
07:00	3	724	152	4	69	5	0	1	4	0	0	0	0	**962**
08:00	6	801	162	6	70	6	0	5	5	0	2	0	0	**1063**
09:00	2	659	137	5	66	6	0	1	9	0	1	0	0	**886**
10:00	3	665	140	3	76	3	0	1	2	0	0	0	0	**893**
11:00	5	678	142	4	57	5	0	2	4	0	0	0	0	**897**
12:00 PM	3	754	137	3	62	6	0	4	3	0	0	0	0	**972**
13:00	2	747	158	6	68	5	0	5	5	0	1	0	0	**997**
14:00	2	756	152	5	59	9	0	3	6	0	1	0	0	**993**
15:00	2	746	153	4	56	5	1	6	5	0	2	0	0	**980**
16:00	4	746	143	3	67	7	0	4	3	0	1	0	0	**978**
17:00	3	753	150	6	52	6	0	4	3	0	1	0	0	**978**
18:00	3	718	129	4	35	5	0	4	5	0	0	0	0	**903**
19:00	2	602	94	2	40	1	0	0	2	0	0	0	0	**743**
20:00	2	521	71	3	34	0	1	0	3	0	0	0	0	**635**
21:00	0	410	62	2	20	0	0	0	2	0	0	0	0	**496**
22:00	0	322	45	2	18	0	0	1	1	0	0	0	0	**389**
23:00	0	228	38	0	7	1	0	0	1	0	0	0	0	**275**
Totals	**46**	**12302**	**2332**	**68**	**978**	**72**	**3**	**44**	**75**		**10**			**15930**
% of Totals	0%	77%	15%	0%	6%	0%	0%	0%	0%		0%			100%

AM Volumes	23	4999	1000	28	460	27	1	13	36	0	4	0	0	6591
% AM	0%	31%	6%	0%	3%	0%	0%	0%	0%		0%			41%
AM Peak Hour	08:00	08:00	08:00	08:00	10:00	08:00	04:00	08:00	09:00		08:00			08:00
Volume	6	801	162	6	76	6	1	5	9		2			1063
PM Volumes	23	7303	1332	40	518	45	2	31	39	0	6	0	0	9339
% PM	0%	46%	8%	0%	3%	0%	0%	0%	0%		0%			59%
PM Peak Hour	16:00	14:00	13:00	13:00	13:00	14:00	15:00	15:00	14:00		15:00			13:00
Volume	4	756	158	6	68	9	1	6	6		2			997

Directional Peak Periods	**AM 7-9**			**NOON 12-2**			**PM 4-6**			**Off Peak Volumes**		
All Classes	Volume		%	Volume		%	Volume		%	Volume		%
	2025	⟷	13%	1969	⟷	12%	1956	⟷	12%	9980	⟷	63%

Classification Definitions

1	Motorcycles	**4**	Buses	**7**	> =4-Axle Single Units	**10**	>=6-Axle Single Trailers	**13**	>=7-Axle Multi-Trailers
2	Passenger Cars	**5**	2-Axle, 6-Tire Single Units	**8**	<=4-Axle Single Trailers	**11**	<=5-Axle Multi-Trailers		
3	2-Axle, 4-Tire Single Units	**6**	3-Axle Single Units	**9**	5-Axle Single Trailers	**12**	6-Axle Multi-Trailers		

CLASSIFICATION

Sherman Way Bet. Hinds Ave & Lankershim Blvd

Day: Wednesday
Date: 3/7/2018

City: North Hollywood
Project #: CA18_5144_006w

West Bound

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
00:00 AM	0	148	15	0	7	0	0	0	0	0	0	0	0	**170**
01:00	0	109	5	0	4	0	0	0	1	0	0	0	0	**119**
02:00	1	57	4	0	1	0	0	0	0	0	0	0	0	**63**
03:00	0	62	7	0	4	0	0	0	1	0	0	0	0	**74**
04:00	0	115	21	0	7	1	0	0	1	0	0	0	0	**145**
05:00	0	313	68	2	36	3	0	0	1	0	0	0	0	**423**
06:00	1	475	98	5	65	2	0	0	5	0	0	0	0	**651**
07:00	2	600	144	5	40	1	0	0	2	0	0	0	0	**794**
08:00	3	574	150	3	51	2	0	4	3	0	0	0	0	**790**
09:00	3	571	131	6	71	1	1	4	4	0	0	0	0	**792**
10:00	1	627	154	3	48	2	1	3	7	0	0	0	0	**846**
11:00	2	709	137	6	61	2	0	0	1	0	0	0	0	**918**
12:00 PM	1	768	153	3	56	4	1	2	5	0	0	0	0	**993**
13:00	3	748	151	6	66	5	1	1	4	0	0	0	0	**985**
14:00	3	849	166	3	63	1	0	3	6	0	0	0	0	**1094**
15:00	5	794	165	3	52	2	1	2	3	0	0	0	0	**1027**
16:00	5	775	132	3	48	1	0	0	3	0	0	0	0	**967**
17:00	2	754	147	4	38	0	0	0	3	0	0	0	0	**948**
18:00	2	711	88	1	32	1	0	0	1	0	0	0	0	**836**
19:00	1	622	87	3	25	0	0	0	1	0	0	0	0	**739**
20:00	0	446	64	0	13	0	0	0	1	0	0	0	0	**524**
21:00	0	416	48	0	15	0	0	0	1	0	0	0	0	**480**
22:00	1	332	36	0	12	1	0	0	2	0	0	0	0	**384**
23:00	1	231	23	0	7	0	0	0	0	0	0	0	0	**262**
Totals	**37**	**11806**	**2194**	**56**	**822**	**29**	**5**	**19**	**56**					**15024**
% of Totals	0%	79%	15%	0%	5%	0%	0%	0%	0%					100%

AM Volumes	13	4360	934	30	395	14	2	11	26	0	0	0	0	5785
% AM	0%	29%	6%	0%	3%	0%	0%	0%	0%					39%
AM Peak Hour	08:00	11:00	10:00	09:00	09:00	05:00	09:00	08:00	10:00					11:00
Volume	3	709	154	6	71	3	1	4	7					918
PM Volumes	24	7446	1260	26	427	15	3	8	30	0	0	0	0	9239
% PM	0%	50%	8%	0%	3%	0%	0%	0%	0%					61%
PM Peak Hour	15:00	14:00	14:00	13:00	13:00	13:00	12:00	14:00	14:00					14:00
Volume	5	849	166	6	66	5	1	3	6					1094

Directional Peak Periods	**AM 7-9**			**NOON 12-2**			**PM 4-6**			**Off Peak Volumes**		
All Classes	Volume		%	Volume		%	Volume		%	Volume		%
	1584	⟷	11%	1978	⟷	13%	1915	⟷	13%	9547	⟷	64%

Classification Definitions

1 Motorcycles
2 Passenger Cars
3 2-Axle, 4-Tire Single Units
4 Buses
5 2-Axle, 6-Tire Single Units
6 3-Axle Single Units
7 > =4-Axle Single Units
8 <=4-Axle Single Trailers
9 5-Axle Single Trailers
10 >=6-Axle Single Trailers
11 <=5-Axle Multi-Trailers
12 6-Axle Multi-Trailers
13 >=7-Axle Multi-Trailers

CLASSIFICATION

Sherman Way Bet. Hinds Ave & Lankershim Blvd

Day: Wednesday
Date: 3/7/2018

City: North Hollywood
Project #: CA18_5144_006

Summary

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
00:00 AM	0	284	36	0	13	0	0	0	0	0	0	0	0	**333**
01:00	0	190	20	0	11	0	0	1	2	0	0	0	0	**224**
02:00	1	137	12	0	2	0	0	0	0	0	0	0	0	**152**
03:00	0	167	22	0	14	0	0	0	1	0	0	0	0	**204**
04:00	0	314	57	2	21	1	1	2	3	0	0	0	0	**401**
05:00	0	702	134	3	60	3	0	0	7	0	1	0	0	**910**
06:00	5	957	204	8	125	4	0	0	8	0	0	0	0	**1311**
07:00	5	1324	296	9	109	6	0	1	6	0	0	0	0	**1756**
08:00	9	1375	312	9	121	8	0	9	8	0	2	0	0	**1853**
09:00	5	1230	268	11	137	7	1	5	13	0	1	0	0	**1678**
10:00	4	1292	294	6	124	5	1	4	9	0	0	0	0	**1739**
11:00	7	1387	279	10	118	7	0	2	5	0	0	0	0	**1815**
12:00 PM	4	1522	290	6	118	10	1	6	8	0	0	0	0	**1965**
13:00	5	1495	309	12	134	10	1	6	9	0	1	0	0	**1982**
14:00	5	1605	318	8	122	10	0	6	12	0	1	0	0	**2087**
15:00	7	1540	318	7	108	7	2	8	8	0	2	0	0	**2007**
16:00	9	1521	275	6	115	8	0	4	6	0	1	0	0	**1945**
17:00	5	1507	297	10	90	6	0	4	6	0	1	0	0	**1926**
18:00	5	1429	217	5	67	6	0	4	6	0	0	0	0	**1739**
19:00	3	1224	181	5	65	1	0	0	3	0	0	0	0	**1482**
20:00	2	967	135	3	47	0	1	0	4	0	0	0	0	**1159**
21:00	0	826	110	2	35	0	0	0	3	0	0	0	0	**976**
22:00	1	654	81	2	30	1	0	1	3	0	0	0	0	**773**
23:00	1	459	61	0	14	1	0	0	1	0	0	0	0	**537**
Totals	**83**	**24108**	**4526**	**124**	**1800**	**101**	**8**	**63**	**131**		**10**			**30954**
% of Totals	0%	78%	15%	0%	6%	0%	0%	0%	0%		0%			100%

AM Volumes	36	9359	1934	58	855	41	3	24	62	0	4	0	0	12376
% AM	0%	30%	6%	0%	3%	0%	0%	0%	0%		0%			40%
AM Peak Hour	08:00	11:00	08:00	09:00	09:00	08:00	04:00	08:00	09:00		08:00			08:00
Volume	9	1387	312	11	137	8	1	9	13		2			1853
PM Volumes	47	14749	2592	66	945	60	5	39	69	0	6	0	0	18578
% PM	0%	48%	8%	0%	3%	0%	0%	0%	0%		0%			60%
PM Peak Hour	16:00	14:00	14:00	13:00	13:00	12:00	15:00	15:00	14:00		15:00			14:00
Volume	9	1605	318	12	134	10	2	8	12		2			2087

Directional Peak Periods **All Classes**	**AM 7-9**			**NOON 12-2**			**PM 4-6**			**Off Peak Volumes**		
	Volume		%	Volume		%	Volume		%	Volume		%
	3609	⟷	12%	3947	⟷	13%	3871	⟷	13%	19527	⟷	63%

Classification Definitions

1 Motorcycles
2 Passenger Cars
3 2-Axle, 4-Tire Single Units
4 Buses
5 2-Axle, 6-Tire Single Units
6 3-Axle Single Units
7 > =4-Axle Single Units
8 <=4-Axle Single Trailers
9 5-Axle Single Trailers
10 >=6-Axle Single Trailers
11 <=5-Axle Multi-Trailers
12 6-Axle Multi-Trailers
13 >=7-Axle Multi-Trailers

Prepared by National Data & Surveying Services

VOLUME

Sherman Way Bet. Hinds Ave & Lankershim Blvd

Day: Wednesday
Date: 3/7/2018

City: North Hollywood
Project #: CA18_5144_006

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	15,930	15,024	30,954

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00	0	0	42		66		108		12:00	0	0	220		235		455	
00:15	0	0	57		41		98		12:15	0	0	259		245		504	
00:30	0	0	35		39		74		12:30	0	0	268		268		536	
00:45	0	0	29	163	24	170	53	333	12:45	0	0	225	972	245	993	470	1965
01:00	0	0	28		36		64		13:00	0	0	262		250		512	
01:15	0	0	24		21		45		13:15	0	0	236		232		468	
01:30	0	0	30		37		67		13:30	0	0	233		258		491	
01:45	0	0	23	105	25	119	48	224	13:45	0	0	266	997	245	985	511	1982
02:00	0	0	25		18		43		14:00	0	0	261		273		534	
02:15	0	0	18		15		33		14:15	0	0	231		266		497	
02:30	0	0	24		19		43		14:30	0	0	248		300		548	
02:45	0	0	22	89	11	63	33	152	14:45	0	0	253	993	255	1094	508	2087
03:00	0	0	28		13		41		15:00	0	0	250		222		472	
03:15	0	0	23		26		49		15:15	0	0	251		245		496	
03:30	0	0	22		18		40		15:30	0	0	257		303		560	
03:45	0	0	57	130	17	74	74	204	15:45	0	0	222	980	257	1027	479	2007
04:00	0	0	40		18		58		16:00	0	0	249		229		478	
04:15	0	0	41		31		72		16:15	0	0	246		240		486	
04:30	0	0	68		36		104		16:30	0	0	234		265		499	
04:45	0	0	107	256	60	145	167	401	16:45	0	0	249	978	233	967	482	1945
05:00	0	0	68		51		119		17:00	0	0	252		268		520	
05:15	0	0	81		100		181		17:15	0	0	230		235		465	
05:30	0	0	140		134		274		17:30	0	0	247		224		471	
05:45	0	0	198	487	138	423	336	910	17:45	0	0	249	978	221	948	470	1926
06:00	0	0	109		142		251		18:00	0	0	260		249		509	
06:15	0	0	132		129		261		18:15	0	0	210		226		436	
06:30	0	0	154		189		343		18:30	0	0	221		183		404	
06:45	0	0	265	660	191	651	456	1311	18:45	0	0	212	903	178	836	390	1739
07:00	0	0	179		178		357		19:00	0	0	184		198		382	
07:15	0	0	250		176		426		19:15	0	0	218		195		413	
07:30	0	0	233		227		460		19:30	0	0	164		186		350	
07:45	0	0	300	962	213	794	513	1756	19:45	0	0	177	743	160	739	337	1482
08:00	0	0	290		197		487		20:00	0	0	183		141		324	
08:15	0	0	251		211		462		20:15	0	0	148		138		286	
08:30	0	0	235		196		431		20:30	0	0	140		135		275	
08:45	0	0	287	1063	186	790	473	1853	20:45	0	0	164	635	110	524	274	1159
09:00	0	0	204		177		381		21:00	0	0	125		153		278	
09:15	0	0	233		200		433		21:15	0	0	131		126		257	
09:30	0	0	225		185		410		21:30	0	0	127		104		231	
09:45	0	0	224	886	230	792	454	1678	21:45	0	0	113	496	97	480	210	976
10:00	0	0	211		205		416		22:00	0	0	85		118		203	
10:15	0	0	235		211		446		22:15	0	0	116		87		203	
10:30	0	0	200		208		408		22:30	0	0	75		96		171	
10:45	0	0	247	893	222	846	469	1739	22:45	0	0	113	389	83	384	196	773
11:00	0	0	207		213		420		23:00	0	0	82		70		152	
11:15	0	0	220		226		446		23:15	0	0	74		69		143	
11:30	0	0	238		225		463		23:30	0	0	56		69		125	
11:45	0	0	232	897	254	918	486	1815	23:45	0	0	63	275	54	262	117	537
TOTALS				6591		5785		**12376**	**TOTALS**				9339		9239		**18578**
SPLIT %				53.3%		46.7%		**40.0%**	**SPLIT %**				50.3%		49.7%		**60.0%**

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	15,930	15,024	30,954

AM Peak Hour			07:45	11:45	**11:45**	**PM Peak Hour**			12:15	14:00	**13:45**
AM Pk Volume			1076	1002	**1981**	**PM Pk Volume**			1014	1094	**2090**
Pk Hr Factor			0.897	0.935	**0.924**	**Pk Hr Factor**			0.946	0.912	**0.953**
7 - 9 Volume	0	0	2025	1584	**3609**	**4 - 6 Volume**	0	0	1956	1915	**3871**
7 - 9 Peak Hour			07:45	07:30	**07:30**	**4 - 6 Peak Hour**			16:15	16:15	**16:15**
7 - 9 Pk Volume	0	0	1076	848	**1922**	**4 - 6 Pk Volume**	0	0	981	1006	**1987**
Pk Hr Factor	0.000	0.000	0.897	0.934	**0.937**	**Pk Hr Factor**	0.000	0.000	0.973	0.938	**0.955**

Prepared by National Data & Surveying Services

CLASSIFICATION

Vose St Bet. Radford Ave & Lankershim Blvd

Day: Wednesday
Date: 3/7/2018

City: North Hollywood
Project #: CA18_5144_007e

East Bound

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
00:00 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	**3**
00:15	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
00:30	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
00:45	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
01:00	0	4	0	0	0	0	0	0	0	0	0	0	0	**4**
01:15	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
01:30	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
01:45	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
02:00	0	4	0	0	0	0	0	0	0	0	0	0	0	**4**
02:15	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
02:30	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
02:45	0	2	0	0	0	0	0	0	0	0	0	0	0	**2**
03:00	0	2	0	0	0	0	0	0	0	0	0	0	0	**2**
03:15	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
03:30	0	2	0	0	0	0	0	0	0	0	0	0	0	**2**
03:45	0	3	1	0	0	0	0	0	0	0	0	0	0	**4**
04:00	0	2	0	0	0	0	0	0	0	0	0	0	0	**2**
04:15	0	1	1	0	0	0	0	0	0	0	0	0	0	**2**
04:30	0	5	0	0	0	0	0	0	0	0	0	0	0	**5**
04:45	0	8	1	0	0	0	0	0	0	0	0	0	0	**9**
05:00	0	3	1	0	0	0	0	0	0	0	0	0	0	**4**
05:15	0	7	2	0	0	0	0	0	0	0	0	0	0	**9**
05:30	0	9	1	0	2	0	0	0	0	0	0	0	0	**12**
05:45	0	11	5	0	0	0	0	0	0	0	0	0	0	**16**
06:00	0	8	2	0	0	1	0	0	0	0	0	0	0	**11**
06:15	0	5	4	0	0	0	0	0	0	0	0	0	0	**9**
06:30	0	9	4	0	2	1	0	0	0	0	0	0	0	**16**
06:45	0	22	3	1	1	1	0	0	0	0	0	0	0	**28**
07:00	0	16	5	0	0	0	0	0	0	0	0	0	0	**21**
07:15	0	12	5	0	3	0	0	0	0	0	0	0	0	**20**
07:30	0	18	5	0	3	0	0	0	0	0	0	0	0	**26**
07:45	0	21	5	0	0	0	0	0	0	0	0	0	0	**26**
08:00	0	23	8	0	3	0	0	0	0	0	0	0	0	**34**
08:15	0	20	8	0	3	3	0	0	0	0	0	0	0	**34**
08:30	0	19	0	0	3	0	0	0	0	0	0	0	0	**22**
08:45	0	13	1	0	2	1	0	0	0	0	0	0	0	**17**
09:00	0	11	3	0	0	0	0	0	0	0	0	0	0	**14**
09:15	0	11	2	0	0	0	0	0	0	0	0	0	0	**13**
09:30	0	10	2	0	1	0	0	0	0	0	0	0	0	**13**
09:45	0	8	4	0	2	1	0	0	0	0	0	0	0	**15**
10:00	0	13	3	1	2	0	0	0	0	0	0	0	0	**19**
10:15	0	18	6	0	2	0	0	0	0	0	0	0	0	**26**
10:30	0	6	3	0	2	0	0	0	0	0	0	0	0	**11**
10:45	1	12	2	0	4	0	0	0	0	0	0	0	0	**19**
11:00	0	17	5	0	0	0	0	0	0	0	0	0	0	**22**
11:15	0	9	3	0	4	1	0	0	0	0	0	0	0	**17**
11:30	0	11	2	0	1	1	0	2	0	0	0	0	0	**17**
11:45	0	15	3	3	1	1	0	0	0	0	0	0	0	**23**
12:00 PM	0	17	1	0	1	0	0	0	0	0	0	0	0	**19**
12:15	0	16	2	1	1	2	0	0	1	0	0	0	0	**23**
12:30	0	17	0	0	2	1	0	1	0	0	0	0	0	**21**
12:45	0	16	1	1	2	0	0	0	0	0	0	0	0	**20**
13:00	0	17	4	0	2	0	0	0	0	0	0	0	0	**23**
13:15	0	9	3	0	2	0	0	0	0	0	0	0	0	**14**
13:30	0	14	4	0	2	0	0	1	0	0	0	0	0	**21**
13:45	0	13	4	1	1	0	0	1	0	0	0	0	0	**20**
14:00	0	16	2	0	1	0	1	0	0	0	0	0	0	**20**
14:15	0	13	3	0	3	0	0	0	0	0	0	0	0	**19**
14:30	0	13	6	0	1	0	0	0	0	0	0	0	0	**20**
14:45	0	5	0	0	2	0	0	0	0	0	0	0	0	**7**
15:00	0	16	1	0	1	0	0	0	0	0	0	0	0	**18**
15:15	1	12	10	2	0	0	0	0	0	0	0	0	0	**25**
15:30	0	15	0	0	1	1	0	0	0	0	0	0	0	**17**
15:45	0	14	4	0	1	0	0	0	0	0	0	0	0	**19**
16:00	0	25	6	0	1	0	0	0	0	0	0	0	0	**32**
16:15	0	15	1	0	4	1	0	0	0	0	0	0	0	**21**
16:30	0	17	5	0	0	0	0	0	0	0	0	0	0	**22**
16:45	0	8	0	0	2	0	0	0	0	0	0	0	0	**10**
17:00	0	19	1	0	1	0	0	0	0	0	0	0	0	**21**
17:15	0	14	5	0	1	0	0	0	0	0	0	0	0	**20**
17:30	0	13	1	0	1	0	0	0	0	0	0	0	0	**15**
17:45	0	12	0	1	1	0	0	0	0	0	0	0	0	**14**
18:00	0	9	3	0	1	0	0	0	0	0	0	0	0	**13**
18:15	0	12	2	0	0	0	0	0	0	0	0	0	0	**14**
18:30	0	15	4	0	0	0	0	0	0	0	0	0	0	**19**
18:45	0	11	2	0	0	0	0	0	0	0	0	0	0	**13**
19:00	0	4	1	1	1	0	0	0	0	0	0	0	0	**7**
19:15	0	15	0	0	0	0	0	0	0	0	0	0	0	**15**
19:30	0	10	3	0	1	0	0	0	0	0	0	0	0	**14**
19:45	0	8	0	0	0	0	0	0	0	0	0	0	0	**8**
20:00	0	6	1	0	0	0	0	0	0	0	0	0	0	**7**
20:15	0	6	0	0	1	0	0	0	0	0	0	0	0	**7**
20:30	0	4	1	0	0	0	0	0	0	0	0	0	0	**5**
20:45	0	9	0	0	0	0	0	0	0	0	0	0	0	**9**
21:00	0	5	1	0	0	0	0	0	0	0	0	0	0	**6**
21:15	0	11	0	0	0	0	0	0	0	0	0	0	0	**11**
21:30	0	4	1	0	0	0	0	0	0	0	0	0	0	**5**
21:45	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
22:00	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
22:15	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
22:30	0	3	1	0	0	0	0	0	0	0	0	0	0	**4**
22:45	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
23:00	0	2	0	0	0	0	0	0	0	0	0	0	0	**2**
23:15	0	3	0	0	0	0	0	0	0	0	0	0	0	**3**
23:30	0	3	0	0	0	0	0	0	0	0	0	0	0	**3**
23:45	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
Totals	**2**	**888**	**184**	**12**	**79**	**16**	**1**	**5**	**1**					**1188**
% of Totals	0%	75%	15%	1%	7%	1%	0%	0%	0%					100%

AM Volumes	1	397	100	5	41	11	0	2	0	0	0	0	0	557
% AM	0%	33%	8%	0%	3%	1%		0%						47%
AM Peak Hour	10:00	07:45	07:30	11:30	08:00	08:00		10:45	11:30					07:30
Volume	1	83	26	4	11	4		2	1					120
PM Volumes	1	491	84	7	38	5	1	3	1	0	0	0	0	631
% PM	0%	41%	7%	1%	3%	0%	0%	0%	0%					53%
PM Peak Hour	14:30	15:45	15:15	12:00	12:30	12:00	13:15	13:00	12:00					15:45
Volume	1	71	20	2	8	3	1	2	1					94

Directional Peak Periods	**AM 7-9**			**NOON 12-2**			**PM 4-6**			**Off Peak Volumes**		
All Classes	Volume		%	Volume		%	Volume		%	Volume		%
	200	⟷	17%	161	⟷	14%	155	⟷	13%	672	⟷	57%

Classification Definitions

1 Motorcycles
2 Passenger Cars
3 2-Axle, 4-Tire Single Units
4 Buses
5 2-Axle, 6-Tire Single Units
6 3-Axle Single Units
7 > =4-Axle Single Units
8 <=4-Axle Single Trailers
9 5-Axle Single Trailers
10 >=6-Axle Single Trailers
11 <=5-Axle Multi-Trailers
12 6-Axle Multi-Trailers
13 >=7-Axle Multi-Trailers

Prepared by National Data & Surveying Services

CLASSIFICATION

Vose St Bet. Radford Ave & Lankershim Blvd

Day: Wednesday
Date: 3/7/2018

City: North Hollywood
Project #: CA18_5144_007w

West Bound

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
00:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
00:15	0	4	0	0	0	0	0	0	0	0	0	0	0	**4**
00:30	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
00:45	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
01:00	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
01:15	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
01:30	0	4	0	0	0	0	0	0	0	0	0	0	0	**4**
01:45	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
02:00	0	4	0	0	0	0	0	0	0	0	0	0	0	**4**
02:15	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
02:30	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
02:45	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
03:15	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
03:30	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
03:45	0	3	0	0	0	0	0	0	0	0	0	0	0	**3**
04:00	0	2	0	0	0	0	0	0	0	0	0	0	0	**2**
04:15	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
04:30	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
04:45	0	3	0	0	0	0	0	0	0	0	0	0	0	**3**
05:00	0	2	0	0	0	0	0	0	0	0	0	0	0	**2**
05:15	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
05:30	0	9	0	1	0	0	0	0	0	0	0	0	0	**10**
05:45	0	8	1	0	1	0	0	0	0	0	0	0	0	**10**
06:00	0	3	0	0	3	0	0	0	0	0	0	0	0	**6**
06:15	0	3	1	0	2	0	0	0	0	0	0	0	0	**6**
06:30	0	7	2	0	0	0	0	0	0	0	0	0	0	**9**
06:45	0	9	2	0	0	0	0	0	0	0	0	0	0	**11**
07:00	0	8	2	0	2	1	0	0	0	0	1	0	0	**14**
07:15	0	12	3	0	0	0	0	0	0	0	0	0	0	**15**
07:30	0	4	3	0	2	0	0	0	0	0	0	0	0	**9**
07:45	0	10	5	0	1	0	0	0	0	0	0	0	0	**16**
08:00	0	5	0	0	1	0	0	0	0	0	0	0	0	**6**
08:15	0	11	4	0	1	0	0	0	0	0	0	0	0	**16**
08:30	0	2	0	0	2	0	0	0	0	0	0	0	0	**4**
08:45	0	4	0	0	0	0	0	0	0	0	0	0	0	**4**
09:00	0	6	3	0	1	0	0	0	0	0	0	0	0	**10**
09:15	0	9	6	0	1	0	0	0	0	0	0	0	0	**16**
09:30	0	7	2	0	0	0	0	0	0	0	0	0	0	**9**
09:45	0	7	2	0	2	0	0	0	0	0	0	0	0	**11**
10:00	0	5	4	1	3	0	0	0	0	0	0	0	0	**13**
10:15	0	14	2	0	3	0	0	0	0	0	0	0	0	**19**
10:30	0	7	4	1	4	0	0	0	0	0	0	0	0	**16**
10:45	0	4	3	0	0	0	0	0	0	0	0	0	0	**7**
11:00	0	13	4	1	1	0	0	0	0	0	0	0	0	**19**
11:15	0	7	1	0	1	0	0	0	0	0	0	0	0	**9**
11:30	0	8	0	0	1	0	0	0	0	0	0	0	0	**9**
11:45	0	13	2	2	1	0	0	1	0	0	0	0	0	**19**
12:00 PM	0	13	1	1	3	0	0	0	0	0	0	0	0	**18**
12:15	0	6	0	0	1	0	0	0	0	0	0	0	0	**7**
12:30	0	14	2	1	2	0	0	0	0	0	0	0	0	**19**
12:45	0	9	4	0	2	1	0	0	0	0	0	0	0	**16**
13:00	0	16	6	0	0	0	0	0	0	0	0	0	0	**22**
13:15	0	8	3	0	2	0	0	1	0	0	0	0	0	**14**
13:30	0	12	1	0	2	0	0	0	0	0	0	0	0	**15**
13:45	0	10	1	0	2	0	0	0	0	0	0	0	0	**13**
14:00	0	10	4	0	2	0	0	0	0	0	0	0	0	**16**
14:15	0	19	3	1	2	0	0	0	0	0	0	0	0	**25**
14:30	0	20	2	0	3	0	0	0	0	0	0	0	0	**25**
14:45	0	12	5	1	1	0	0	1	0	0	0	0	0	**20**
15:00	0	6	1	1	1	0	0	1	0	0	0	0	0	**10**
15:15	0	10	1	0	4	0	0	0	0	0	0	0	0	**15**
15:30	0	10	3	0	0	0	1	0	0	0	0	0	0	**14**
15:45	0	8	1	0	4	0	0	0	0	0	0	0	0	**13**
16:00	0	15	1	0	2	0	0	0	0	0	0	0	0	**18**
16:15	0	16	4	1	2	0	0	0	0	0	0	0	0	**23**
16:30	0	13	3	0	2	1	0	0	0	0	0	0	0	**19**
16:45	0	16	0	0	0	0	0	0	1	0	0	0	0	**17**
17:00	0	19	1	0	0	0	0	0	0	0	0	0	0	**20**
17:15	0	5	2	0	1	0	0	0	0	0	0	0	0	**8**
17:30	0	12	0	0	0	0	0	0	0	0	0	0	0	**12**
17:45	0	8	1	0	1	0	0	0	0	0	0	0	0	**10**
18:00	0	9	1	0	1	0	0	0	0	0	0	0	0	**11**
18:15	0	5	2	0	0	0	0	0	0	0	0	0	0	**7**
18:30	0	11	1	0	0	0	0	0	0	0	0	0	0	**12**
18:45	0	8	1	0	0	0	0	0	0	0	0	0	0	**9**
19:00	0	10	1	0	0	0	0	0	0	0	0	0	0	**11**
19:15	0	8	0	0	0	1	0	0	0	0	0	0	0	**9**
19:30	0	6	0	0	0	0	0	0	0	0	0	0	0	**6**
19:45	0	8	1	0	0	0	0	0	0	0	0	0	0	**9**
20:00	0	12	0	0	1	0	0	0	0	0	0	0	0	**13**
20:15	0	2	1	0	0	0	0	0	0	0	0	0	0	**3**
20:30	0	4	0	0	0	0	0	0	0	0	0	0	0	**4**
20:45	0	8	1	0	0	0	0	0	0	0	0	0	0	**9**
21:00	0	6	0	0	0	0	0	0	0	0	0	0	0	**6**
21:15	0	6	0	0	0	0	0	0	0	0	0	0	0	**6**
21:30	0	3	1	0	0	0	0	0	0	0	0	0	0	**4**
21:45	0	3	2	0	0	0	0	0	0	0	0	0	0	**5**
22:00	0	7	0	0	0	0	0	0	0	0	0	0	0	**7**
22:15	0	2	1	0	0	0	0	0	0	0	0	0	0	**3**
22:30	0	5	1	0	0	0	0	0	0	0	0	0	0	**6**
22:45	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
23:00	0	4	0	0	0	0	0	0	0	0	0	0	0	**4**
23:15	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
23:30	0	3	0	0	0	0	0	0	0	0	0	0	0	**3**
23:45	0	2	0	0	0	0	0	0	0	0	0	0	0	**2**
Totals		**643**	**120**	**12**	**74**	**4**	**1**	**4**	**1**		**1**			**860**
% of Totals		75%	14%	1%	9%	0%	0%	0%	0%		0%			100%

AM Volumes	0	222	56	6	33	1	0	1	0	0	1	0	0	320
% AM		26%	7%	1%	4%	0%		0%			0%			37%
AM Peak Hour		11:45	09:15	11:45	09:45	06:15		11:00			06:15			11:45
Volume		46	14	4	12	1		1			1			63
PM Volumes	0	421	64	6	41	3	1	3	1	0	0	0	0	540
% PM		49%	7%	1%	5%	0%	0%	0%	0%					63%
PM Peak Hour		16:15	12:30	14:15	15:15	12:00	14:45	14:15	16:00					14:00
Volume		64	15	3	10	1	1	2	1					86

Directional Peak Periods	**AM 7-9**			**NOON 12-2**			**PM 4-6**			**Off Peak Volumes**		
All Classes	Volume		%	Volume		%	Volume		%	Volume		%
	84	⟷	10%	124	⟷	14%	127	⟷	15%	525	⟷	61%

Classification Definitions

1	Motorcycles	**4**	Buses	**7**	> =4-Axle Single Units	**10**	>=6-Axle Single Trailers	**13**	>=7-Axle Multi-Trailers
2	Passenger Cars	**5**	2-Axle, 6-Tire Single Units	**8**	<=4-Axle Single Trailers	**11**	<=5-Axle Multi-Trailers		
3	2-Axle, 4-Tire Single Units	**6**	3-Axle Single Units	**9**	5-Axle Single Trailers	**12**	6-Axle Multi-Trailers		

Prepared by National Data & Surveying Services

CLASSIFICATION

Vose St Bet. Radford Ave & Lankershim Blvd

Day: Wednesday
Date: 3/7/2018

City: North Hollywood
Project #: CA18_5144_007

Summary

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
00:00 AM	0	4	0	0	0	0	0	0	0	0	0	0	0	**4**
00:15	0	5	0	0	0	0	0	0	0	0	0	0	0	**5**
00:30	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
00:45	0	2	0	0	0	0	0	0	0	0	0	0	0	**2**
01:00	0	5	0	0	0	0	0	0	0	0	0	0	0	**5**
01:15	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
01:30	0	4	0	0	0	0	0	0	0	0	0	0	0	**4**
01:45	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
02:00	0	8	0	0	0	0	0	0	0	0	0	0	0	**8**
02:15	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
02:30	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
02:45	0	2	0	0	0	0	0	0	0	0	0	0	0	**2**
03:00	0	2	0	0	0	0	0	0	0	0	0	0	0	**2**
03:15	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
03:30	0	2	0	0	0	0	0	0	0	0	0	0	0	**2**
03:45	0	6	1	0	0	0	0	0	0	0	0	0	0	**7**
04:00	0	4	0	0	0	0	0	0	0	0	0	0	0	**4**
04:15	0	1	1	0	0	0	0	0	0	0	0	0	0	**2**
04:30	0	5	0	0	0	0	0	0	0	0	0	0	0	**5**
04:45	0	11	1	0	0	0	0	0	0	0	0	0	0	**12**
05:00	0	5	1	0	0	0	0	0	0	0	0	0	0	**6**
05:15	0	7	2	0	0	0	0	0	0	0	0	0	0	**9**
05:30	0	18	1	1	2	0	0	0	0	0	0	0	0	**22**
05:45	0	19	6	0	1	0	0	0	0	0	0	0	0	**26**
06:00	0	11	2	0	3	1	0	0	0	0	0	0	0	**17**
06:15	0	8	5	0	2	0	0	0	0	0	0	0	0	**15**
06:30	0	16	6	0	2	1	0	0	0	0	0	0	0	**25**
06:45	0	31	5	1	1	1	0	0	0	0	0	0	0	**39**
07:00	0	24	7	0	2	1	0	0	0	0	1	0	0	**35**
07:15	0	24	8	0	3	0	0	0	0	0	0	0	0	**35**
07:30	0	22	8	0	5	0	0	0	0	0	0	0	0	**35**
07:45	0	31	10	0	1	0	0	0	0	0	0	0	0	**42**
08:00	0	28	8	0	4	0	0	0	0	0	0	0	0	**40**
08:15	0	31	12	0	4	3	0	0	0	0	0	0	0	**50**
08:30	0	21	0	0	5	0	0	0	0	0	0	0	0	**26**
08:45	0	17	1	0	2	1	0	0	0	0	0	0	0	**21**
09:00	0	17	6	0	1	0	0	0	0	0	0	0	0	**24**
09:15	0	20	8	0	1	0	0	0	0	0	0	0	0	**29**
09:30	0	17	4	0	1	0	0	0	0	0	0	0	0	**22**
09:45	0	15	6	0	4	1	0	0	0	0	0	0	0	**26**
10:00	0	18	7	2	5	0	0	0	0	0	0	0	0	**32**
10:15	0	32	8	0	5	0	0	0	0	0	0	0	0	**45**
10:30	0	13	7	1	6	0	0	0	0	0	0	0	0	**27**
10:45	1	16	5	0	4	0	0	0	0	0	0	0	0	**26**
11:00	0	30	9	1	1	0	0	0	0	0	0	0	0	**41**
11:15	0	16	4	0	5	1	0	0	0	0	0	0	0	**26**
11:30	0	19	2	0	2	1	0	2	0	0	0	0	0	**26**
11:45	0	28	5	5	2	1	0	1	0	0	0	0	0	**42**
12:00 PM	0	30	2	1	4	0	0	0	0	0	0	0	0	**37**
12:15	0	22	2	1	2	2	0	0	1	0	0	0	0	**30**
12:30	0	31	2	1	4	1	0	1	0	0	0	0	0	**40**
12:45	0	25	5	1	4	1	0	0	0	0	0	0	0	**36**
13:00	0	33	10	0	2	0	0	0	0	0	0	0	0	**45**
13:15	0	17	6	0	4	0	0	1	0	0	0	0	0	**28**
13:30	0	26	5	0	4	0	0	1	0	0	0	0	0	**36**
13:45	0	23	5	1	3	0	0	1	0	0	0	0	0	**33**
14:00	0	26	6	0	3	0	1	0	0	0	0	0	0	**36**
14:15	0	32	6	1	5	0	0	0	0	0	0	0	0	**44**
14:30	0	33	8	0	4	0	0	0	0	0	0	0	0	**45**
14:45	0	17	5	1	3	0	0	1	0	0	0	0	0	**27**
15:00	0	22	2	1	2	0	0	1	0	0	0	0	0	**28**
15:15	1	22	11	2	4	0	0	0	0	0	0	0	0	**40**
15:30	0	25	3	0	1	1	1	0	0	0	0	0	0	**31**
15:45	0	22	5	0	5	0	0	0	0	0	0	0	0	**32**
16:00	0	40	7	0	3	0	0	0	0	0	0	0	0	**50**
16:15	0	31	5	1	6	1	0	0	0	0	0	0	0	**44**
16:30	0	30	8	0	2	1	0	0	0	0	0	0	0	**41**
16:45	0	24	0	0	2	0	0	0	1	0	0	0	0	**27**
17:00	0	38	2	0	1	0	0	0	0	0	0	0	0	**41**
17:15	0	19	7	0	2	0	0	0	0	0	0	0	0	**28**
17:30	0	25	1	0	1	0	0	0	0	0	0	0	0	**27**
17:45	0	20	1	1	2	0	0	0	0	0	0	0	0	**24**
18:00	0	18	4	0	2	0	0	0	0	0	0	0	0	**24**
18:15	0	17	4	0	0	0	0	0	0	0	0	0	0	**21**
18:30	0	26	5	0	0	0	0	0	0	0	0	0	0	**31**
18:45	0	19	3	0	0	0	0	0	0	0	0	0	0	**22**
19:00	0	14	2	1	1	0	0	0	0	0	0	0	0	**18**
19:15	0	23	0	0	0	1	0	0	0	0	0	0	0	**24**
19:30	0	16	3	0	1	0	0	0	0	0	0	0	0	**20**
19:45	0	16	1	0	0	0	0	0	0	0	0	0	0	**17**
20:00	0	18	1	0	1	0	0	0	0	0	0	0	0	**20**
20:15	0	8	1	0	1	0	0	0	0	0	0	0	0	**10**
20:30	0	8	1	0	0	0	0	0	0	0	0	0	0	**9**
20:45	0	17	1	0	0	0	0	0	0	0	0	0	0	**18**
21:00	0	11	1	0	0	0	0	0	0	0	0	0	0	**12**
21:15	0	17	0	0	0	0	0	0	0	0	0	0	0	**17**
21:30	0	7	2	0	0	0	0	0	0	0	0	0	0	**9**
21:45	0	4	2	0	0	0	0	0	0	0	0	0	0	**6**
22:00	0	8	0	0	0	0	0	0	0	0	0	0	0	**8**
22:15	0	3	1	0	0	0	0	0	0	0	0	0	0	**4**
22:30	0	8	2	0	0	0	0	0	0	0	0	0	0	**10**
22:45	0	2	0	0	0	0	0	0	0	0	0	0	0	**2**
23:00	0	6	0	0	0	0	0	0	0	0	0	0	0	**6**
23:15	0	4	0	0	0	0	0	0	0	0	0	0	0	**4**
23:30	0	6	0	0	0	0	0	0	0	0	0	0	0	**6**
23:45	0	3	0	0	0	0	0	0	0	0	0	0	0	**3**
Totals	**2**	**1531**	**304**	**24**	**153**	**20**	**2**	**9**	**2**		**1**			**2048**
% of Totals	0%	75%	15%	1%	7%	1%	0%	0%	0%		0%			100%

AM Volumes	1	619	156	11	74	12	0	3	0	0	1	0	0	877
% AM	0%	30%	8%	1%	4%	1%		0%			0%			43%
AM Peak Hour	10:00	07:30	07:30	11:45	09:45	08:00		11:00	11:30		06:15			07:30
Volume	1	112	38	8	20	4		3	1		1			167
PM Volumes	1	912	148	13	79	8	2	6	2	0	0	0	0	1171
% PM	0%	45%	7%	1%	4%	0%	0%	0%	0%					57%
PM Peak Hour	14:30	16:00	12:45	12:00	15:45	12:00	13:15	13:00	12:00					15:45
Volume	1	125	26	4	16	4	1	3	1					167

Directional Peak Periods **All Classes**	**AM 7-9**			**NOON 12-2**			**PM 4-6**			**Off Peak Volumes**		
	Volume		%	Volume		%	Volume		%	Volume		%
	284	⟷	14%	285	⟷	14%	282	⟷	14%	1197	⟷	58%

Classification Definitions

1 Motorcycles
2 Passenger Cars
3 2-Axle, 4-Tire Single Units
4 Buses
5 2-Axle, 6-Tire Single Units
6 3-Axle Single Units
7 > =4-Axle Single Units
8 <=4-Axle Single Trailers
9 5-Axle Single Trailers
10 >=6-Axle Single Trailers
11 <=5-Axle Multi-Trailers
12 6-Axle Multi-Trailers
13 >=7-Axle Multi-Trailers

Prepared by National Data & Surveying Services

CLASSIFICATION

Vose St Bet. Radford Ave & Lankershim Blvd

Day: Wednesday
Date: 3/7/2018

City: North Hollywood
Project #: CA18_5144_007e

East Bound

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
00:00 AM	0	6	0	0	0	0	0	0	0	0	0	0	0	**6**
01:00	0	4	0	0	0	0	0	0	0	0	0	0	0	**4**
02:00	0	6	0	0	0	0	0	0	0	0	0	0	0	**6**
03:00	0	8	1	0	0	0	0	0	0	0	0	0	0	**9**
04:00	0	16	2	0	0	0	0	0	0	0	0	0	0	**18**
05:00	0	30	9	0	2	0	0	0	0	0	0	0	0	**41**
06:00	0	44	13	1	3	3	0	0	0	0	0	0	0	**64**
07:00	0	67	20	0	6	0	0	0	0	0	0	0	0	**93**
08:00	0	75	17	0	11	4	0	0	0	0	0	0	0	**107**
09:00	0	40	11	0	3	1	0	0	0	0	0	0	0	**55**
10:00	1	49	14	1	10	0	0	0	0	0	0	0	0	**75**
11:00	0	52	13	3	6	3	0	2	0	0	0	0	0	**79**
12:00 PM	0	66	4	2	6	3	0	1	1	0	0	0	0	**83**
13:00	0	53	15	1	7	0	0	2	0	0	0	0	0	**78**
14:00	0	47	11	0	7	0	1	0	0	0	0	0	0	**66**
15:00	1	57	15	2	3	1	0	0	0	0	0	0	0	**79**
16:00	0	65	12	0	7	1	0	0	0	0	0	0	0	**85**
17:00	0	58	7	1	4	0	0	0	0	0	0	0	0	**70**
18:00	0	47	11	0	1	0	0	0	0	0	0	0	0	**59**
19:00	0	37	4	1	2	0	0	0	0	0	0	0	0	**44**
20:00	0	25	2	0	1	0	0	0	0	0	0	0	0	**28**
21:00	0	21	2	0	0	0	0	0	0	0	0	0	0	**23**
22:00	0	6	1	0	0	0	0	0	0	0	0	0	0	**7**
23:00	0	9	0	0	0	0	0	0	0	0	0	0	0	**9**
Totals	**2**	**888**	**184**	**12**	**79**	**16**	**1**	**5**	**1**					**1188**
% of Totals	0%	75%	15%	1%	7%	1%	0%	0%	0%					100%

AM Volumes	1	397	100	5	41	11	0	2	0	0	0	0	0	557
% AM	0%	33%	8%	0%	3%	1%		0%						47%
AM Peak Hour	10:00	08:00	07:00	11:00	08:00	08:00		11:00						08:00
Volume	1	75	20	3	11	4		2						107
PM Volumes	1	491	84	7	38	5	1	3	1	0	0	0	0	631
% PM	0%	41%	7%	1%	3%	0%	0%	0%	0%					53%
PM Peak Hour	15:00	12:00	13:00	12:00	13:00	12:00	14:00	13:00	12:00					16:00
Volume	1	66	15	2	7	3	1	2	1					85

Directional Peak Periods	**AM 7-9**			**NOON 12-2**			**PM 4-6**			**Off Peak Volumes**		
All Classes	Volume		%	Volume		%	Volume		%	Volume		%
	200	⟷	17%	161	⟷	14%	155	⟷	13%	672	⟷	57%

Classification Definitions

1 Motorcycles
2 Passenger Cars
3 2-Axle, 4-Tire Single Units
4 Buses
5 2-Axle, 6-Tire Single Units
6 3-Axle Single Units
7 > =4-Axle Single Units
8 <=4-Axle Single Trailers
9 5-Axle Single Trailers
10 >=6-Axle Single Trailers
11 <=5-Axle Multi-Trailers
12 6-Axle Multi-Trailers
13 >=7-Axle Multi-Trailers

Prepared by National Data & Surveying Services

CLASSIFICATION

Vose St Bet. Radford Ave & Lankershim Blvd

Day: Wednesday
Date: 3/7/2018

City: North Hollywood
Project #: CA18_5144_007w

West Bound

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
00:00 AM	0	6	0	0	0	0	0	0	0	0	0	0	0	**6**
01:00	0	6	0	0	0	0	0	0	0	0	0	0	0	**6**
02:00	0	5	0	0	0	0	0	0	0	0	0	0	0	**5**
03:00	0	3	0	0	0	0	0	0	0	0	0	0	0	**3**
04:00	0	5	0	0	0	0	0	0	0	0	0	0	0	**5**
05:00	0	19	1	1	1	0	0	0	0	0	0	0	0	**22**
06:00	0	22	5	0	5	0	0	0	0	0	0	0	0	**32**
07:00	0	34	13	0	5	1	0	0	0	0	1	0	0	**54**
08:00	0	22	4	0	4	0	0	0	0	0	0	0	0	**30**
09:00	0	29	13	0	4	0	0	0	0	0	0	0	0	**46**
10:00	0	30	13	2	10	0	0	0	0	0	0	0	0	**55**
11:00	0	41	7	3	4	0	0	1	0	0	0	0	0	**56**
12:00 PM	0	42	7	2	8	1	0	0	0	0	0	0	0	**60**
13:00	0	46	11	0	6	0	0	1	0	0	0	0	0	**64**
14:00	0	61	14	2	8	0	0	1	0	0	0	0	0	**86**
15:00	0	34	6	1	9	0	1	1	0	0	0	0	0	**52**
16:00	0	60	8	1	6	1	0	0	1	0	0	0	0	**77**
17:00	0	44	4	0	2	0	0	0	0	0	0	0	0	**50**
18:00	0	33	5	0	1	0	0	0	0	0	0	0	0	**39**
19:00	0	32	2	0	0	1	0	0	0	0	0	0	0	**35**
20:00	0	26	2	0	1	0	0	0	0	0	0	0	0	**29**
21:00	0	18	3	0	0	0	0	0	0	0	0	0	0	**21**
22:00	0	15	2	0	0	0	0	0	0	0	0	0	0	**17**
23:00	0	10	0	0	0	0	0	0	0	0	0	0	0	**10**
Totals		**643**	**120**	**12**	**74**	**4**	**1**	**4**	**1**		**1**			**860**
% of Totals		75%	14%	1%	9%	0%	0%	0%	0%		0%			100%

	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
AM Volumes	0	222	56	6	33	1	0	1	0	0	1	0	0	320
% AM		26%	7%	1%	4%	0%		0%			0%			37%
AM Peak Hour		11:00	07:00	11:00	10:00	07:00		11:00			07:00			11:00
Volume		41	13	3	10	1		1			1			56
PM Volumes	0	421	64	6	41	3	1	3	1	0	0	0	0	540
% PM		49%	7%	1%	5%	0%	0%	0%	0%					63%
PM Peak Hour		14:00	14:00	12:00	15:00	12:00	15:00	13:00	16:00					14:00
Volume		61	14	2	9	1	1	1	1					86

Directional Peak Periods	**AM 7-9**		**NOON 12-2**		**PM 4-6**		**Off Peak Volumes**	
All Classes	Volume	%	Volume	%	Volume	%	Volume	%
	84 ⟷	10%	124 ⟷	14%	127 ⟷	15%	525 ⟷	61%

Classification Definitions

1	Motorcycles	**4**	Buses	**7**	> =4-Axle Single Units	**10**	>=6-Axle Single Trailers	**13**	>=7-Axle Multi-Trailers
2	Passenger Cars	**5**	2-Axle, 6-Tire Single Units	**8**	<=4-Axle Single Trailers	**11**	<=5-Axle Multi-Trailers		
3	2-Axle, 4-Tire Single Units	**6**	3-Axle Single Units	**9**	5-Axle Single Trailers	**12**	6-Axle Multi-Trailers		

Prepared by National Data & Surveying Services

CLASSIFICATION

Vose St Bet. Radford Ave & Lankershim Blvd

Day: Wednesday
Date: 3/7/2018

City: North Hollywood
Project #: CA18_5144_007

Summary

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
00:00 AM	0	12	0	0	0	0	0	0	0	0	0	0	0	**12**
01:00	0	10	0	0	0	0	0	0	0	0	0	0	0	**10**
02:00	0	11	0	0	0	0	0	0	0	0	0	0	0	**11**
03:00	0	11	1	0	0	0	0	0	0	0	0	0	0	**12**
04:00	0	21	2	0	0	0	0	0	0	0	0	0	0	**23**
05:00	0	49	10	1	3	0	0	0	0	0	0	0	0	**63**
06:00	0	66	18	1	8	3	0	0	0	0	0	0	0	**96**
07:00	0	101	33	0	11	1	0	0	0	0	1	0	0	**147**
08:00	0	97	21	0	15	4	0	0	0	0	0	0	0	**137**
09:00	0	69	24	0	7	1	0	0	0	0	0	0	0	**101**
10:00	1	79	27	3	20	0	0	0	0	0	0	0	0	**130**
11:00	0	93	20	6	10	3	0	3	0	0	0	0	0	**135**
12:00 PM	0	108	11	4	14	4	0	1	1	0	0	0	0	**143**
13:00	0	99	26	1	13	0	0	3	0	0	0	0	0	**142**
14:00	0	108	25	2	15	0	1	1	0	0	0	0	0	**152**
15:00	1	91	21	3	12	1	1	1	0	0	0	0	0	**131**
16:00	0	125	20	1	13	2	0	0	1	0	0	0	0	**162**
17:00	0	102	11	1	6	0	0	0	0	0	0	0	0	**120**
18:00	0	80	16	0	2	0	0	0	0	0	0	0	0	**98**
19:00	0	69	6	1	2	1	0	0	0	0	0	0	0	**79**
20:00	0	51	4	0	2	0	0	0	0	0	0	0	0	**57**
21:00	0	39	5	0	0	0	0	0	0	0	0	0	0	**44**
22:00	0	21	3	0	0	0	0	0	0	0	0	0	0	**24**
23:00	0	19	0	0	0	0	0	0	0	0	0	0	0	**19**
Totals	**2**	**1531**	**304**	**24**	**153**	**20**	**2**	**9**	**2**		**1**			**2048**
% of Totals	0%	75%	15%	1%	7%	1%	0%	0%	0%		0%			100%

AM Volumes	1	619	156	11	74	12	0	3	0	0	1	0	0	877
% AM	0%	30%	8%	1%	4%	1%		0%			0%			43%
AM Peak Hour	10:00	07:00	07:00	11:00	10:00	08:00		11:00			07:00			07:00
Volume	1	101	33	6	20	4		3			1			147
PM Volumes	1	912	148	13	79	8	2	6	2	0	0	0	0	1171
% PM	0%	45%	7%	1%	4%	0%	0%	0%	0%					57%
PM Peak Hour	15:00	16:00	13:00	12:00	14:00	12:00	14:00	13:00	12:00					16:00
Volume	1	125	26	4	15	4	1	3	1					162

Directional Peak Periods	**AM 7-9**			**NOON 12-2**			**PM 4-6**			**Off Peak Volumes**		
All Classes	Volume		%	Volume		%	Volume		%	Volume		%
	284	⟷	14%	285	⟷	14%	282	⟷	14%	1197	⟷	58%

Classification Definitions

1 Motorcycles
2 Passenger Cars
3 2-Axle, 4-Tire Single Units
4 Buses
5 2-Axle, 6-Tire Single Units
6 3-Axle Single Units
7 > =4-Axle Single Units
8 <=4-Axle Single Trailers
9 5-Axle Single Trailers
10 >=6-Axle Single Trailers
11 <=5-Axle Multi-Trailers
12 6-Axle Multi-Trailers
13 >=7-Axle Multi-Trailers

Prepared by National Data & Surveying Services

VOLUME

Vose St Bet. Radford Ave & Lankershim Blvd

Day: Wednesday
Date: 3/7/2018

City: North Hollywood
Project #: CA18_5144_007

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	1,188	860	2,048

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00	0	0	3		1		4		12:00	0	0	19		18		37	
00:15	0	0	1		4		5		12:15	0	0	23		7		30	
00:30	0	0	1		0		1		12:30	0	0	21		19		40	
00:45	0	0	1	6	1	6	2	12	12:45	0	0	20	83	16	60	36	143
01:00	0	0	4		1		5		13:00	0	0	23		22		45	
01:15	0	0	0		0				13:15	0	0	14		14		28	
01:30	0	0	0		4		4		13:30	0	0	21		15		36	
01:45	0	0	0	4	1	6	1	10	13:45	0	0	20	78	13	64	33	142
02:00	0	0	4		4		8		14:00	0	0	20		16		36	
02:15	0	0	0		1		1		14:15	0	0	19		25		44	
02:30	0	0	0		0				14:30	0	0	20		25		45	
02:45	0	0	2	6	0	5	2	11	14:45	0	0	7	66	20	86	27	152
03:00	0	0	2		0		2		15:00	0	0	18		10		28	
03:15	0	0	1		0		1		15:15	0	0	25		15		40	
03:30	0	0	2		0		2		15:30	0	0	17		14		31	
03:45	0	0	4	9	3	3	7	12	15:45	0	0	19	79	13	52	32	131
04:00	0	0	2		2		4		16:00	0	0	32		18		50	
04:15	0	0	2		0		2		16:15	0	0	21		23		44	
04:30	0	0	5		0		5		16:30	0	0	22		19		41	
04:45	0	0	9	18	3	5	12	23	16:45	0	0	10	85	17	77	27	162
05:00	0	0	4		2		6		17:00	0	0	21		20		41	
05:15	0	0	9		0		9		17:15	0	0	20		8		28	
05:30	0	0	12		10		22		17:30	0	0	15		12		27	
05:45	0	0	16	41	10	22	26	63	17:45	0	0	14	70	10	50	24	120
06:00	0	0	11		6		17		18:00	0	0	13		11		24	
06:15	0	0	9		6		15		18:15	0	0	14		7		21	
06:30	0	0	16		9		25		18:30	0	0	19		12		31	
06:45	0	0	28	64	11	32	39	96	18:45	0	0	13	59	9	39	22	98
07:00	0	0	21		14		35		19:00	0	0	7		11		18	
07:15	0	0	20		15		35		19:15	0	0	15		9		24	
07:30	0	0	26		9		35		19:30	0	0	14		6		20	
07:45	0	0	26	93	16	54	42	147	19:45	0	0	8	44	9	35	17	79
08:00	0	0	34		6		40		20:00	0	0	7		13		20	
08:15	0	0	34		16		50		20:15	0	0	7		3		10	
08:30	0	0	22		4		26		20:30	0	0	5		4		9	
08:45	0	0	17	107	4	30	21	137	20:45	0	0	9	28	9	29	18	57
09:00	0	0	14		10		24		21:00	0	0	6		6		12	
09:15	0	0	13		16		29		21:15	0	0	11		6		17	
09:30	0	0	13		9		22		21:30	0	0	5		4		9	
09:45	0	0	15	55	11	46	26	101	21:45	0	0	1	23	5	21	6	44
10:00	0	0	19		13		32		22:00	0	0	1		7		8	
10:15	0	0	26		19		45		22:15	0	0	1		3		4	
10:30	0	0	11		16		27		22:30	0	0	4		6		10	
10:45	0	0	19	75	7	55	26	130	22:45	0	0	1	7	1	17	2	24
11:00	0	0	22		19		41		23:00	0	0	2		4		6	
11:15	0	0	17		9		26		23:15	0	0	3		1		4	
11:30	0	0	17		9		26		23:30	0	0	3		3		6	
11:45	0	0	23	79	19	56	42	135	23:45	0	0	1	9	2	10	3	19
TOTALS				557		320		**877**	**TOTALS**				631		540		**1171**
SPLIT %				63.5%		36.5%		**42.8%**	**SPLIT %**				53.9%		46.1%		**57.2%**

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	1,188	860	2,048

AM Peak Hour			07:30	11:45	**07:30**	**PM Peak Hour**			15:45	14:00	**15:45**
AM Pk Volume			120	63	**167**	**PM Pk Volume**			94	86	**167**
Pk Hr Factor			0.882	0.829	**0.835**	**Pk Hr Factor**			0.734	0.860	**0.835**
7 - 9 Volume	0	0	200	84	**284**	**4 - 6 Volume**	0	0	155	127	**282**
7 - 9 Peak Hour			07:30	07:00	**07:30**	**4 - 6 Peak Hour**			16:00	16:15	**16:00**
7 - 9 Pk Volume	0	0	120	54	**167**	**4 - 6 Pk Volume**	0	0	85	79	**162**
Pk Hr Factor	0.000	0.000	0.882	0.844	**0.835**	**Pk Hr Factor**	0.000	0.000	0.664	0.859	**0.810**

Prepared by NDS/ATD

VOLUME

Hart St Bet. Morella Ave & Simpson Ave

Day: Wednesday
Date: 3/7/2018

City: North Hollywood
Project #: CA18_5144_008

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	1,603	1,340	2,943

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00			3		6		9		12:00			29		22		51	
00:15			4		7		11		12:15			17		16		33	
00:30			4		3		7		12:30			16		16		32	
00:45			3	14	3	19	6	33	12:45			18	80	15	69	33	149
01:00			0		2		2		13:00			16		18		34	
01:15			3		0		3		13:15			25		26		51	
01:30			3		5		8		13:30			19		20		39	
01:45			1	7	0	7	1	14	13:45			24	84	26	90	50	174
02:00			3		0		3		14:00			35		24		59	
02:15			0		1		1		14:15			15		27		42	
02:30			4		2		6		14:30			25		21		46	
02:45			1	8	3	6	4	14	14:45			26	101	11	83	37	184
03:00			1		2		3		15:00			34		25		59	
03:15			1		3		4		15:15			23		20		43	
03:30			2		1		3		15:30			29		21		50	
03:45			2	6	2	8	4	14	15:45			32	118	22	88	54	206
04:00			2		1		3		16:00			42		23		65	
04:15			1		1		2		16:15			24		25		49	
04:30			2		0		2		16:30			32		29		61	
04:45			2	7	2	4	4	11	16:45			43	141	21	98	64	239
05:00			1		2		3		17:00			37		41		78	
05:15			4		4		8		17:15			37		32		69	
05:30			9		8		17		17:30			41		34		75	
05:45			9	23	6	20	15	43	17:45			32	147	33	140	65	287
06:00			7		10		17		18:00			25		36		61	
06:15			18		12		30		18:15			21		25		46	
06:30			27		11		38		18:30			27		20		47	
06:45			31	83	15	48	46	131	18:45			22	95	26	107	48	202
07:00			23		15		38		19:00			28		15		43	
07:15			30		27		57		19:15			17		18		35	
07:30			43		22		65		19:30			15		27		42	
07:45			41	137	20	84	61	221	19:45			9	69	11	71	20	140
08:00			31		21		52		20:00			15		13		28	
08:15			25		14		39		20:15			21		12		33	
08:30			25		13		38		20:30			14		19		33	
08:45			25	106	12	60	37	166	20:45			13	63	14	58	27	121
09:00			15		8		23		21:00			13		20		33	
09:15			20		7		27		21:15			11		16		27	
09:30			15		15		30		21:30			7		12		19	
09:45			12	62	12	42	24	104	21:45			9	40	7	55	16	95
10:00			26		20		46		22:00			8		13		21	
10:15			22		10		32		22:15			7		10		17	
10:30			28		15		43		22:30			5		6		11	
10:45			14	90	9	54	23	144	22:45			6	26	12	41	18	67
11:00			18		12		30		23:00			8		2		10	
11:15			15		14		29		23:15			7		9		16	
11:30			14		11		25		23:30			6		7		13	
11:45			20	67	27	64	47	131	23:45			8	29	6	24	14	53
TOTALS				610		416		**1026**	**TOTALS**				993		924		**1917**
SPLIT %				59.5%		40.5%		**34.9%**	**SPLIT %**				51.8%		48.2%		**65.1%**

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	1,603	1,340	2,943

AM Peak Hour			07:15	07:15	**07:15**	**PM Peak Hour**			16:45	17:00	**17:00**
AM Pk Volume			145	90	**235**	**PM Pk Volume**			158	140	**287**
Pk Hr Factor			0.843	0.833	**0.904**	**Pk Hr Factor**			0.919	0.854	**0.920**
7 - 9 Volume	0	0	243	144	**387**	**4 - 6 Volume**	0	0	288	238	**526**
7 - 9 Peak Hour			07:15	07:15	**07:15**	**4 - 6 Peak Hour**			16:45	17:00	**17:00**
7 - 9 Pk Volume	0	0	145	90	**235**	**4 - 6 Pk Volume**	0	0	158	140	**287**
Pk Hr Factor	0.000	0.000	0.843	0.833	**0.904**	**Pk Hr Factor**	0.000	0.000	0.919	0.854	**0.920**

Prepared by NDS/ATD

VOLUME

Morella Ave Bet. Dehougne St & Vanowen St

Day: Wednesday
Date: 3/7/2018

City: North Hollywood
Project #: CA18_5144_009

DAILY TOTALS	NB	SB	EB	WB	Total
	91	94	0	0	185

AM Period	NB		SB		EB	WB	TOTAL		PM Period	NB		SB		EB	WB	TOTAL	
00:00	0		0				0		12:00	0		1				1	
00:15	1		0				1		12:15	0		2				2	
00:30	0		0				0		12:30	1		1				2	
00:45	0	1	0				0	1	12:45	1	2	1	5			2	7
01:00	0		0				0		13:00	1		1				2	
01:15	0		0				0		13:15	2		1				3	
01:30	0		0				0		13:30	2		1				3	
01:45	0		2	2			2	2	13:45	0	5	0	3			0	8
02:00	0		0				0		14:00	2		1				3	
02:15	0		0				0		14:15	1		1				2	
02:30	0		0				0		14:30	6		2				8	
02:45	0		0				0		14:45	5	14	0	4			5	18
03:00	0		1				1		15:00	2		5				7	
03:15	0		0				0		15:15	3		2				5	
03:30	1		1				2		15:30	3		2				5	
03:45	0	1	0	2			0	3	15:45	0	8	0	9			0	17
04:00	0		0				0		16:00	2		1				3	
04:15	0		0				0		16:15	0		2				2	
04:30	0		0				0		16:30	0		1				1	
04:45	0		0				0		16:45	1	3	2	6			3	9
05:00	0		0				0		17:00	2		3				5	
05:15	0		0				0		17:15	2		0				2	
05:30	1		0				1		17:30	1		0				1	
05:45	0	1	1	1			1	2	17:45	1	6	3	6			4	12
06:00	2		1				3		18:00	1		1				2	
06:15	1		0				1		18:15	0		0				0	
06:30	1		0				1		18:30	1		4				5	
06:45	1	5	0	1			1	6	18:45	1	3	2	7			3	10
07:00	4		1				5		19:00	1		1				2	
07:15	1		2				3		19:15	2		1				3	
07:30	2		2				4		19:30	0		0				0	
07:45	0	7	0	5			0	12	19:45	0	3	0	2			0	5
08:00	0		2				2		20:00	1		1				2	
08:15	0		1				1		20:15	1		0				1	
08:30	1		1				2		20:30	0		2				2	
08:45	1	2	1	5			2	7	20:45	1	3	2	5			3	8
09:00	2		2				4		21:00	2		2				4	
09:15	1		0				1		21:15	0		2				2	
09:30	1		1				2		21:30	2		3				5	
09:45	0	4	2	5			2	9	21:45	1	5	0	7			1	12
10:00	0		1				1		22:00	2		2				4	
10:15	5		0				5		22:15	1		2				3	
10:30	1		3				4		22:30	0		1				1	
10:45	1	7	3	7			4	14	22:45	1	4	0	5			1	9
11:00	1		2				3		23:00	2		1				3	
11:15	0		0				0		23:15	1		1				2	
11:30	0		0				0		23:30	0		2				2	
11:45	3	4	1	3			4	7	23:45	0	3	0	4			0	7
TOTALS		32		31				**63**	**TOTALS**		59		63				**122**
SPLIT %		50.8%		49.2%				**34.1%**	**SPLIT %**		48.4%		51.6%				**65.9%**

DAILY TOTALS	NB	SB	EB	WB	Total
	91	94	0	0	185

AM Peak Hour	06:45	10:15			**10:15**	**PM Peak Hour**	14:30	14:30			**14:30**
AM Pk Volume	8	8			**16**	**PM Pk Volume**	16	9			**25**
Pk Hr Factor	0.500	0.667			**0.800**	**Pk Hr Factor**	0.667	0.450			**0.781**
7 - 9 Volume	9	10	0	0	**19**	**4 - 6 Volume**	9	12	0	0	**21**
7 - 9 Peak Hour	07:00	07:15			**07:00**	**4 - 6 Peak Hour**	16:45	16:15			**17:00**
7 - 9 Pk Volume	7	6	0	0	**12**	**4 - 6 Pk Volume**	6	8	0	0	**12**
Pk Hr Factor	0.438	0.750	0.000	0.000	**0.600**	**Pk Hr Factor**	0.750	0.667	0.000	0.000	**0.600**

- CMA Worksheets

Level of Service Workheet
(Circular 212 Method)

I/S #:	**North-South Street:**	Laurel Canyon Boulevard	**Year of Count:** 2018	**Ambient Growth: (%):** 0.5	**Conducted by:**	**Date:**	3/5/2018
1	**East-West Street:**	Runnymede Street	**Projection Year:** 2020	**Peak Hour:** AM	**Reviewed by:**	**Project:**	LADWP N Hollywood GW

	EXISTING CONDITION	EXISTING PLUS PROJECT	FUTURE CONDITION W/O PROJECT	FUTURE CONDITION W/ PROJECT	FUTURE W/ PROJECT W/ MITIGATION
No. of Phases	0	0	0	0	0
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?	0	0	0	0	0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0
ATSAC-1 or ATSAC+ATCS-2?	0	0	0	0	0
Override Capacity	1200	#####	1200	1200	1200

	MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	4	1	**4**	0	4	**4**	0	4	1	**4**	0	4	1	**4**		4	1	**4**
	Left-Through		0							0				0				0	
	Through	533	1	281	0	533	283	1	539	1	284	0	539	1	286		539	1	286
	Through-Right		1							1				1				1	
	Right	28	0	28	4	32	32	0	28	0	28	4	32	0	32		32	0	32
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	57	1	57	0	57	57	0	58	1	58	0	58	1	58		58	1	58
	Left-Through		0							0				0				0	
	Through	1,048	1	**525**	1	1049	**525**	1	1060	1	**531**	1	1061	1	**531**		1061	1	**531**
	Through-Right		1							1				1				1	
	Right	1	0	1	0	1	1	0	1	0	1	0	1	0	1		1	0	1
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	0	0	**0**	0	0	**0**	0	0	0	**0**	0	0	0	**0**		0	0	**0**
	Left-Through		0							0				0				0	
	Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Through-Right		0							0				0				0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	42	0	42	1	43	43	0	42	0	42	1	43	0	43		43	0	43
	Left-Through		0							0				0				0	
	Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Through-Right		0							0				0				0	
	Right	101	0	**143**	0	101	**144**	0	102	0	**144**	0	102	0	**145**		102	0	**145**
	Left-Through-Right		0							0				0				0	
	Left-Right		1							1				1				1	
CRITICAL VOLUMES			*North-South:*	529		*North-South:*	529			*North-South:*	535			*North-South:*	535			*North-South:*	535
			East-West:	143		*East-West:*	144			*East-West:*	144			*East-West:*	145			*East-West:*	145
			SUM:	672		*SUM:*	673			*SUM:*	679			*SUM:*	680			*SUM:*	680
VOLUME/CAPACITY *(V/C)* RATIO:				0.560			0.561				0.566				0.567				0.567
V/C LESS ATSAC/ATCS ADJUSTMENT:				0.560			0.561				0.566				0.567				0.567
LEVEL OF SERVICE (LOS):				A			A				A				A				A

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.001	**Δ*v/c* after mitigation:**	0.001
Significant impacted?	NO	**Fully mitigated?**	N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Laurel Canyon Boulevard	Year of Count:	2018	Ambient Growth: (%):	0.5	Conducted by:	0	Date:	3/5/2018
2	East-West Street:	Runnymede Street	Projection Year:	2020	Peak Hour:	PM	Reviewed by:		Project:	LADWP N Hollywood GW

No. of Phases				0				0				0				0				0
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0				0				0				0				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	0	SB--	0	NB--	0	SB--	0	NB--	0	SB--	0	NB--	0	SB--	0	NB--	0	SB--	0
	EB--	0	WB--	0	EB--	0	WB--	0	EB--	0	WB--	0	EB--	0	WB--	0	EB--	0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				0				0				0				0				0
Override Capacity				1200				#####				1200				1200				1200

	MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	6	1	6	0	6	6	0	6	1	6	0	6	1	6		6	1	6
	Left-Through		0							0				0				0	
	Through	1373	1	712	1	1374	714	1	1388	1	720	1	1389	1	722		1389	1	722
	Through-Right		1							1				1				1	
	Right	51	0	51	3	54	54	0	52	0	52	3	55	0	55		55	0	55
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	60	1	60	0	60	60	0	61	1	61	0	61	1	61		61	1	61
	Left-Through		0							0				0				0	
	Through	637	1	319	0	637	319	1	644	1	322	0	644	1	322		644	1	322
	Through-Right		1							1				1				1	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Left-Through		0							0				0				0	
	Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Through-Right		0							0				0				0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	25	0	25	2	27	27	0	25	0	25	2	27	0	27		27	0	27
	Left-Through		0							0				0				0	
	Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Through-Right		0							0				0				0	
	Right	78	0	103	0	78	105	0	79	0	104	0	79	0	106		79	0	106
	Left-Through-Right		0							0				0				0	
	Left-Right		1							1				1				1	
CRITICAL VOLUMES			North-South:	772		North-South:	774			North-South:	781			North-South:	783			North-South:	783
			East-West:	103		East-West:	105			East-West:	104			East-West:	106			East-West:	106
			SUM:	875		SUM:	879			SUM:	885			SUM:	889			SUM:	889
VOLUME/CAPACITY (*V/C*) RATIO:				0.729			0.733				0.738				0.741				0.741
V/C LESS ATSAC/ATCS ADJUSTMENT:				0.729			0.733				0.738				0.741				0.741
LEVEL OF SERVICE (LOS):				C			C				C				C				C

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.003	Δ*v/c* after mitigation:	0.003
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet

(Circular 212 Method)

I/S #:	North-South Street:	Radford Avenue	Year of Count:	2018	Ambient Growth: (%):	0.5	Conducted by:		Date: 3/5/2018
2	East-West Street:	Sherman Road	Projection Year:	2020	Peak Hour:	AM	Reviewed by:		Project: LADWP N Hollywood GW

No. of Phases	0	0	0	0	0
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?	0	0	0	0	0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0
ATSAC-1 or ATSAC+ATCS-2?	0	0	0	0	0
Override Capacity	1200	#####	1200	1200	1200

MOVEMENT		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	48	0	**48**	0	48	**48**	0	48	0	**48**	0	48	0	**48**		48	0	**48**
	Left-Through		1							1				1				1	
	Through	114	0	162	1	115	163	0	115	0	163	1	116	0	164		116	0	164
	Through-Right		0							0				0				0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Left-Through		0							0				0				0	
	Through	101	0	**125**	2	103	**127**	0	102	0	**126**	2	104	0	**128**		104	0	**128**
	Through-Right		1							1				1				1	
	Right	24	0	0	0	24	0	0	24	0	0	0	24	0	0		24	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	10	0	10	0	10	10	0	10	0	10	0	10	0	10		10	0	10
	Left-Through		0							0				0				0	
	Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Through-Right		0							0				0				0	
	Right	38	0	**48**	0	38	**48**	0	38	0	**48**	0	38	0	**48**		38	0	**48**
	Left-Through-Right		0							0				0				0	
	Left-Right		1							1				1				1	
WESTBOUND	Left	0	0	**0**	0	0	**0**	0	0	0	**0**	0	0	0	**0**		0	0	**0**
	Left-Through		0							0				0				0	
	Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Through-Right		0							0				0				0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	

CRITICAL VOLUMES	*North-South:*	173	*North-South:*	175	*North-South:*	174	*North-South:*	176	*North-South:*	176
	East-West:	48	*East-West:*	48	*East-West:*	48	*East-West:*	48	*East-West:*	48
	SUM:	221	*SUM:*	223	*SUM:*	222	*SUM:*	224	*SUM:*	224
VOLUME/CAPACITY *(V/C)* RATIO:		0.184		0.186		0.185		0.187		0.187
V/C LESS ATSAC/ATCS ADJUSTMENT:		0.184		0.186		0.185		0.187		0.187
LEVEL OF SERVICE (LOS):		**A**		**A**		**A**		**A**		**A**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.002	Δ*v/c* after mitigation:	0.002
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet

(Circular 212 Method)

I/S #:	**North-South Street:**	Radford Avenue	**Year of Count:**	2018	**Ambient Growth: (%):**	0.5	**Conducted by:**	0	**Date:** 3/5/2018
2	**East-West Street:**	Sherman Road	**Projection Year:**	2020	**Peak Hour:**	PM	**Reviewed by:**		**Project:** LADWP N Hollywood GW

	Existing		Existing Plus Project		Future w/o Project		Future w/ Project		Future w/ Project w/ Mitigation	
No. of Phases		0		0		0		0		0
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?		0		0		0		0		0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB-- 0	NB-- 0	SB-- 0	NB-- 0	SB-- 0	NB-- 0	SB-- 0	NB-- 0	SB-- 0
	EB-- 0	WB-- 0	EB-- 0	WB-- 0	EB-- 0	WB-- 0	EB-- 0	WB-- 0	EB-- 0	WB-- 0
ATSAC-1 or ATSAC+ATCS-2?		0		0		0		0		0
Override Capacity		1200		#####		1200		1200		1200

MOVEMENT		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	25	0	25	0	25	25	0	25	0	25	0	25	0	25		25	0	25
	Left-Through		1							1				1				1	
	Through	122	0	147	0	122	147	0	123	0	148	0	123	0	148		123	0	148
	Through-Right		0							0				0				0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Left-Through		0							0				0				0	
	Through	134	0	143	3	137	146	0	135	0	144	3	138	0	147		138	0	147
	Through-Right		1							1				1				1	
	Right	9	0	0	0	9	0	0	9	0	0	0	9	0	0		9	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	27	0	27	0	27	27	0	27	0	27	0	27	0	27		27	0	27
	Left-Through		0							0				0				0	
	Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Through-Right		0							0				0				0	
	Right	52	0	79	0	52	79	0	53	0	80	0	53	0	80		53	0	80
	Left-Through-Right		0							0				0				0	
	Left-Right		1							1				1				1	
WESTBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Left-Through		0							0				0				0	
	Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Through-Right		0							0				0				0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES			*North-South:*	168		*North-South:*	171			*North-South:*	169			*North-South:*	172			*North-South:*	172
			East-West:	79		*East-West:*	79			*East-West:*	80			*East-West:*	80			*East-West:*	80
			SUM:	247		*SUM:*	250			*SUM:*	249			*SUM:*	252			*SUM:*	252
VOLUME/CAPACITY *(V/C)* RATIO:				0.206			0.208				0.208				0.210				0.210
V/C LESS ATSAC/ATCS ADJUSTMENT:				0.206			0.208				0.208				0.210				0.210
LEVEL OF SERVICE (LOS):				A			A				A				A				A

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.002	**Δ*v/c* after mitigation:**	0.002
Significant impacted?	NO	**Fully mitigated?**	N/A

Level of Service Worksheet

(Circular 212 Method)

I/S #:	North-South Street:	Hinds Avenue	Year of Count:	2018	Ambient Growth: (%):	0.5	Conducted by:		Date:	3/5/2018
3	East-West Street:	Sherman Way	Projection Year:	2020	Peak Hour:	AM	Reviewed by:		Project:	LADWP N Hollywood GW

No. of Phases	0	0	0	0	0
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?	0	0	0	0	0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0
ATSAC-1 or ATSAC+ATCS-2?	0	0	0	0	0
Override Capacity	1200	#####	1200	1200	1200

MOVEMENT		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	24	0	24	0	24	24	0	24	0	24	0	24	0	24		24	0	24
	Left-Through		0							0				0				0	
	Through	0	0	25	0	0	25	0	0	0	25	0	0	0	25		0	0	25
	Through-Right		0							0				0				0	
	Right	1	0	0	0	1	0	0	1	0	0	0	1	0	0		1	0	0
	Left-Through-Right		1							1				1				1	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	9	0	9	0	9	9	0	9	0	9	0	9	0	9		9	0	9
	Left-Through		0							0				0				0	
	Through	0	0	32	0	0	32	0	0	0	32	0	0	0	32		0	0	32
	Through-Right		0							0				0				0	
	Right	23	0	0	0	23	0	0	23	0	0	0	23	0	0		23	0	0
	Left-Through-Right		1							1				1				1	
	Left-Right		0							0				0				0	
EASTBOUND	Left	20	1	20	0	20	20	0	20	1	20	0	20	1	20		20	1	20
	Left-Through		0							0				0				0	
	Through	1,276	1	638	13	1289	645	5	1294	1	647	13	1307	1	654		1307	1	654
	Through-Right		1							1				1				1	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	3	1	3	0	3	3	0	3	1	3	0	3	1	3		3	1	3
	Left-Through		0							0				0				0	
	Through	910	1	468	6	916	471	5	924	1	475	6	930	1	478		930	1	478
	Through-Right		1							1				1				1	
	Right	26	0	26	0	26	26	0	26	0	26	0	26	0	26		26	0	26
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES			*North-South:*	56		*North-South:*	56			*North-South:*	56			*North-South:*	56			*North-South:*	56
			East-West:	641		*East-West:*	648			*East-West:*	650			*East-West:*	657			*East-West:*	657
			SUM:	697		*SUM:*	704			*SUM:*	706			*SUM:*	713			*SUM:*	713
VOLUME/CAPACITY *(V/C)* RATIO:				0.581			0.587				0.588				0.594				0.594
V/C LESS ATSAC/ATCS ADJUSTMENT:				0.581			0.587				0.588				0.594				0.594
LEVEL OF SERVICE (LOS):				A			A				A				A				A

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.006	Δ*v/c* after mitigation:	0.006
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Hinds Avenue	Year of Count:	2018	Ambient Growth: (%):	0.5	Conducted by:	0	Date:	3/5/2018
3	East-West Street:	Sherman Way	Projection Year:	2020	Peak Hour:	PM	Reviewed by:		Project:	LADWP N Hollywood GW

	EXISTING CONDITION	EXISTING PLUS PROJECT	FUTURE CONDITION W/O PROJECT	FUTURE CONDITION W/ PROJECT	FUTURE W/ PROJECT W/ MITIGATION
No. of Phases	0	0	0	0	0
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?	0	0	0	0	0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0
ATSAC-1 or ATSAC+ATCS-2?	0	0	0	0	0
Override Capacity	1200	#####	1200	1200	1200

MOVEMENT		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Left-Through		0							0				0				0	
	Through	0	0	3	0	0	3	0	0	0	3	0	0	0	3		0	0	3
	Through-Right		0							0				0				0	
	Right	3	0	0	0	3	0	0	3	0	0	0	3	0	0		3	0	0
	Left-Through-Right		1							1				1				1	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	15	0	15	0	15	15	0	15	0	15	0	15	0	15		15	0	15
	Left-Through		0							0				0				0	
	Through	0	0	41	0	0	41	0	0	0	41	0	0	0	41		0	0	41
	Through-Right		0							0				0				0	
	Right	26	0	0	0	26	0	0	26	0	0	0	26	0	0		26	0	0
	Left-Through-Right		1							1				1				1	
	Left-Right		0							0				0				0	
EASTBOUND	Left	31	1	31	0	31	31	0	31	1	31	0	31	1	31		31	1	31
	Left-Through		0							0				0				0	
	Through	1206	1	604	6	1212	607	8	1226	1	614	6	1232	1	617		1232	1	617
	Through-Right		1							1				1				1	
	Right	1	0	1	0	1	1	0	1	0	1	0	1	0	1		1	0	1
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	1	1	1	0	1	1	0	1	1	1	0	1	1	1		1	1	1
	Left-Through		0							0				0				0	
	Through	1085	1	563	13	1098	569	8	1104	1	572	13	1117	1	579		1117	1	579
	Through-Right		1							1				1				1	
	Right	40	0	40	0	40	40	0	40	0	40	0	40	0	40		40	0	40
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	

		EXISTING CONDITION	EXISTING PLUS PROJECT	FUTURE CONDITION W/O PROJECT	FUTURE CONDITION W/ PROJECT	FUTURE W/ PROJECT W/ MITIGATION
CRITICAL VOLUMES	*North-South:*	41	41	41	41	41
	East-West:	605	608	615	618	618
	SUM:	646	649	656	659	659
VOLUME/CAPACITY *(V/C)* RATIO:		0.538	0.541	0.547	0.549	0.549
V/C LESS ATSAC/ATCS ADJUSTMENT:		0.538	0.541	0.547	0.549	0.549
LEVEL OF SERVICE (LOS):		A	A	A	A	A

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project: 0.002

Δ*v/c* after mitigation: 0.002

Significant impacted? NO

Fully mitigated? N/A

Level of Service Workheet
(Circular 212 Method)

I/S #:	**North-South Street:**	Morella Avenue	**Year of Count:**	2018	**Ambient Growth: (%):**	0.5	**Conducted by:**		**Date:**	3/5/2018
4	**East-West Street:**	Hart Street	**Projection Year:**	2020	**Peak Hour:**	AM	**Reviewed by:**		**Project:**	LADWP N Hollywood GW

	Existing Condition	Existing Plus Project	Future Condition W/O Project	Future Condition W/ Project	Future W/ Project W/ Mitigation
No. of Phases	0	0	0	0	0
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?	0	0	0	0	0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0
ATSAC-1 or ATSAC+ATCS-2?	0	0	0	0	0
Override Capacity	1200	#####	1200	1200	1200

	MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	11	0	11	0	11	11	0	11	0	11	0	11	0	11		11	0	11
	Left-Through		0							0				0				0	
	Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Through-Right		0							0				0				0	
	Right	23	0	**34**	6	29	**40**	0	23	0	**34**	6	29	0	**40**		29	0	**40**
	Left-Through-Right		0							0				0				0	
	Left-Right		1							1				1				1	
SOUTHBOUND	Left	0	0	**0**	0	0	**0**	0	0	0	**0**	0	0	0	**0**		0	0	**0**
	Left-Through		0							0				0				0	
	Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Through-Right		0							0				0				0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Left-Through		0							0				0				0	
	Through	120	0	**126**	0	120	**134**	0	121	0	**127**	0	121	0	**135**		121	0	**135**
	Through-Right		1							1				1				1	
	Right	6	0	0	8	14	0	0	6	0	0	8	14	0	0		14	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	16	0	**16**	15	31	**31**	0	16	0	**16**	15	31	0	**31**		31	0	**31**
	Left-Through		1							1				1				1	
	Through	77	0	93	0	77	108	0	78	0	94	0	78	0	109		78	0	109
	Through-Right		0							0				0				0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	

		Existing Condition	Existing Plus Project	Future Condition W/O Project	Future Condition W/ Project	Future W/ Project W/ Mitigation
CRITICAL VOLUMES	*North-South:*	34	40	34	40	40
	East-West:	142	165	143	166	166
	SUM:	176	205	177	206	206
VOLUME/CAPACITY *(V/C)* RATIO:		0.147	0.171	0.148	0.172	0.172
V/C LESS ATSAC/ATCS ADJUSTMENT:		0.147	0.171	0.148	0.172	0.172
LEVEL OF SERVICE (LOS):		A	A	A	A	A

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.024	**Δ*v/c* after mitigation:**	0.024
Significant impacted?	NO	**Fully mitigated?**	N/A

Level of Service Worksheet

(Circular 212 Method)

I/S #:	North-South Street:	Morella Avenue	Year of Count:	2018	Ambient Growth: (%):	0.5	Conducted by:	0	Date:	3/5/2018
4	East-West Street:	Hart Street	Projection Year:	2020	Peak Hour:	PM	Reviewed by:		Project:	LADWP N Hollywood GW

No. of Phases	0	0	0	0	0
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?	0	0	0	0	0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0
ATSAC-1 or ATSAC+ATCS-2?	0	0	0	0	0
Override Capacity	1200	#####	1200	1200	1200

MOVEMENT		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	8	0	8	8	16	16	0	8	0	8	8	16	0	16		16	0	16
	Left-Through		0							0				0				0	
	Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Through-Right		0							0				0				0	
	Right	20	0	28	19	39	55	0	20	0	28	19	39	0	55		39	0	55
	Left-Through-Right		0							0				0				0	
	Left-Right		1							1				1				1	
SOUTHBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Left-Through		0							0				0				0	
	Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Through-Right		0							0				0				0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Left-Through		0							0				0				0	
	Through	136	0	151	0	136	151	0	137	0	152	0	137	0	152		137	0	152
	Through-Right		1							1				1				1	
	Right	15	0	0	0	15	0	0	15	0	0	0	15	0	0		15	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	22	0	22	6	28	28	0	22	0	22	6	28	0	28		28	0	28
	Left-Through		1							1				1				1	
	Through	123	0	145	0	123	151	0	124	0	146	0	124	0	152		124	0	152
	Through-Right		0							0				0				0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	

CRITICAL VOLUMES	*North-South:*	28	*North-South:*	55	*North-South:*	28	*North-South:*	55	*North-South:*	55
	East-West:	173	*East-West:*	179	*East-West:*	174	*East-West:*	180	*East-West:*	180
	SUM:	201	*SUM:*	234	*SUM:*	202	*SUM:*	235	*SUM:*	235
VOLUME/CAPACITY (*V/C*) RATIO:		0.168		0.195		0.168		0.196		0.196
V/C LESS ATSAC/ATCS ADJUSTMENT:		0.168		0.195		0.168		0.196		0.196
LEVEL OF SERVICE (LOS):		A		A		A		A		A

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.028	Δ*v/c* after mitigation:	0.028
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Lankershim Boulevard	Year of Count:	2018	Ambient Growth: (%):	0.5	Conducted by:		Date:	3/5/2018
5	East-West Street:	Hart Street	Projection Year:	2020	Peak Hour:	AM	Reviewed by:		Project:	LADWP N Hollywood GW

No. of Phases	2	2	2	2	2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?	0	0	0	0	0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0
ATSAC-1 or ATSAC+ATCS-2?	2	2	2	2	2
Override Capacity	0	0	0	0	0

MOVEMENT		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	32	1	32	0	32	32	0	32	1	32	0	32	1	32		32	1	32
	Left-Through		0							0				0				0	
	Through	565	1	296	1	566	296	5	576	1	301	1	577	1	302		577	1	302
	Through-Right		1							1				1				1	
	Right	26	0	26	0	26	26	0	26	0	26	0	26	0	26		26	0	26
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	104	1	104	0	104	104	0	105	1	105	0	105	1	105		105	1	105
	Left-Through		0							0				0				0	
	Through	1,141	2	571	0	1141	571	5	1157	2	579	0	1157	2	579		1157	2	579
	Through-Right		0							0				0				0	
	Right	70	1	38	15	85	50	0	71	1	38	15	86	1	50		86	1	50
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	65	1	65	6	71	71	0	66	1	66	6	72	1	72		72	1	72
	Left-Through		0							0				0				0	
	Through	13	0	97	0	13	97	0	13	0	98	0	13	0	98		13	0	98
	Through-Right		1							1				1				1	
	Right	84	0	0	0	84	0	0	85	0	0	0	85	0	0		85	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	31	0	31	0	31	31	0	31	0	31	0	31	0	31		31	0	31
	Left-Through		0							0				0				0	
	Through	6	0	67	0	6	67	0	6	0	67	0	6	0	67		6	0	67
	Through-Right		0							0				0				0	
	Right	30	0	0	0	30	0	0	30	0	0	0	30	0	0		30	0	0
	Left-Through-Right		1							1				1				1	
	Left-Right		0							0				0				0	

		EXISTING CONDITION	EXISTING PLUS PROJECT	FUTURE CONDITION W/O PROJECT	FUTURE CONDITION W/ PROJECT	FUTURE W/ PROJECT W/ MITIGATION
CRITICAL VOLUMES	*North-South:*	603	603	611	611	611
	East-West:	132	138	133	139	139
	SUM:	735	741	744	750	750
VOLUME/CAPACITY *(V/C)* RATIO:		0.490	0.494	0.496	0.500	0.500
V/C LESS ATSAC/ATCS ADJUSTMENT:		0.390	0.394	0.396	0.400	0.400
LEVEL OF SERVICE (LOS):		A	A	A	A	A

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.004	Δ*v/c* after mitigation:	0.004
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet

(Circular 212 Method)

I/S #: 5	North-South Street:	Lankershim Boulevard	Year of Count:	2018	Ambient Growth: (%):	0.5	Conducted by:	0	Date: 3/5/2018
	East-West Street:	Hart Street	Projection Year:	2020	Peak Hour:	PM	Reviewed by:		Project: LADWP N Hollywood GW

	Existing Condition	Existing Plus Project	Future Condition W/O Project	Future Condition W/ Project	Future W/ Project W/ Mitigation
No. of Phases	2	2	2	2	2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?	0	0	0	0	0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0
ATSAC-1 or ATSAC+ATCS-2?	2	2	2	2	2
Override Capacity	0	0	0	0	0

MOVEMENT		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	55	1	55	0	55	55	0	56	1	56	0	56	1	56		56	1	56
	Left-Through		0							0				0				0	
	Through	1109	1	**562**	0	1109	**562**	8	1128	1	**572**	0	1128	1	**572**		1128	1	**572**
	Through-Right		1							1				1				1	
	Right	15	0	15	0	15	15	0	15	0	15	0	15	0	15		15	0	15
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	33	1	**33**	0	33	**33**	0	33	1	**33**	0	33	1	**33**		33	1	**33**
	Left-Through		0							0				0				0	
	Through	788	2	394	0	788	394	8	804	2	402	0	804	2	402		804	2	402
	Through-Right		0							0				0				0	
	Right	81	1	33	6	87	31	0	82	1	33	6	88	1	32		88	1	32
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	97	1	**97**	15	112	**112**	0	98	1	**98**	15	113	1	**113**		113	1	**113**
	Left-Through		0							0				0				0	
	Through	13	0	85	0	13	89	0	13	0	86	0	13	0	90		13	0	90
	Through-Right		1							1				1				1	
	Right	72	0	0	4	76	0	0	73	0	0	4	77	0	0		77	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	33	0	33	0	33	33	0	33	0	33	0	33	0	33		33	0	33
	Left-Through		0							0				0				0	
	Through	7	0	**148**	0	7	**148**	0	7	0	**149**	0	7	0	**149**		7	0	**149**
	Through-Right		0							0				0				0	
	Right	108	0	0	0	108	0	0	109	0	0	0	109	0	0		109	0	0
	Left-Through-Right		1							1				1				1	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES			*North-South:*	595		*North-South:*	595			*North-South:*	605			*North-South:*	605			*North-South:*	605
			East-West:	245		*East-West:*	260			*East-West:*	247			*East-West:*	262			*East-West:*	262
			SUM:	840		*SUM:*	855			*SUM:*	852			*SUM:*	867			*SUM:*	867
VOLUME/CAPACITY *(V/C)* RATIO:				0.560			0.570				0.568				0.578				0.578
V/C LESS ATSAC/ATCS ADJUSTMENT:				0.460			0.470				0.468				0.478				0.478
LEVEL OF SERVICE (LOS):				A			A				A				A				A

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.010	Δ*v/c* after mitigation:	0.010
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #: 6	**North-South Street:**	Morella Avenue	**Year of Count:**	2018	**Ambient Growth: (%):**	0.5	**Conducted by:**	
	East-West Street:	Dehougne Street	**Projection Year:**	2020	**Peak Hour:**	AM	**Reviewed by:**	
							Date:	3/5/2018
							Project:	LADWP N Hollywood GW

	Existing Condition	Existing Plus Project	Future Condition W/O Project	Future Condition W/ Project	Future W/ Project W/ Mitigation
No. of Phases	0	0	0	0	0
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?	0	0	0	0	0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0
ATSAC-1 or ATSAC+ATCS-2?	0	0	0	0	0
Override Capacity	1200	#####	1200	1200	1200

MOVEMENT		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	19	0	19	0	19	19	0	19	0	19	0	19	0	19		19	0	19
	Left-Through		0							0				0				0	
	Through	5	0	29	6	11	35	0	5	0	29	6	11	0	35		11	0	35
	Through-Right		0							0				0				0	
	Right	5	0	0	0	5	0	0	5	0	0	0	5	0	0		5	0	0
	Left-Through-Right		1							1				1				1	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Left-Through		0							0				0				0	
	Through	5	0	29	23	28	52	0	5	0	29	23	28	0	52		28	0	52
	Through-Right		0							0				0				0	
	Right	24	0	0	0	24	0	0	24	0	0	0	24	0	0		24	0	0
	Left-Through-Right		1							1				1				1	
	Left-Right		0							0				0				0	
EASTBOUND	Left	14	0	14	0	14	14	0	14	0	14	0	14	0	14		14	0	14
	Left-Through		0							0				0				0	
	Through	15	0	38	0	15	43	0	15	0	38	0	15	0	43		15	0	43
	Through-Right		0							0				0				0	
	Right	9	0	0	5	14	0	0	9	0	0	5	14	0	0		14	0	0
	Left-Through-Right		1							1				1				1	
	Left-Right		0							0				0				0	
WESTBOUND	Left	4	0	4	0	4	4	0	4	0	4	0	4	0	4		4	0	4
	Left-Through		0							0				0				0	
	Through	18	0	26	0	18	26	0	18	0	26	0	18	0	26		18	0	26
	Through-Right		0							0				0				0	
	Right	4	0	0	0	4	0	0	4	0	0	0	4	0	0		4	0	0
	Left-Through-Right		1							1				1				1	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES			*North-South:*	48		*North-South:*	71			*North-South:*	48			*North-South:*	71			*North-South:*	71
			East-West:	42		*East-West:*	47			*East-West:*	42			*East-West:*	47			*East-West:*	47
			SUM:	90		*SUM:*	118			*SUM:*	90			*SUM:*	118			*SUM:*	118
VOLUME/CAPACITY *(V/C)* RATIO:				0.075			0.098				0.075				0.098				0.098
V/C LESS ATSAC/ATCS ADJUSTMENT:				0.075			0.098				0.075				0.098				0.098
LEVEL OF SERVICE (LOS):				A			A				A				A				A

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.023	**Δ*v/c* after mitigation:**	0.023
Significant impacted?	NO	**Fully mitigated?**	N/A

Level of Service Worksheet

(Circular 212 Method)

I/S #:	North-South Street:	Morella Avenue	Year of Count:	2018	Ambient Growth: (%):	0.5	Conducted by:	0	Date:	3/5/2018
6	East-West Street:	Dehougne Street	Projection Year:	2020	Peak Hour:	PM	Reviewed by:		Project:	LADWP N Hollywood GW

No. of Phases	0	0	0	0	0
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?	0	0	0	0	0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 SB-- 0	NB-- 0 SB-- 0	NB-- 0 SB-- 0	NB-- 0 SB-- 0	NB-- 0 SB-- 0
	EB-- 0 WB-- 0	EB-- 0 WB-- 0	EB-- 0 WB-- 0	EB-- 0 WB-- 0	EB-- 0 WB-- 0
ATSAC-1 or ATSAC+ATCS-2?	0	0	0	0	0
Override Capacity	1200	#####	1200	1200	1200

	MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	10	0	10	0	10	10	0	10	0	10	0	10	0	10		10	0	10
	Left-Through		0							0				0				0	
	Through	3	0	19	26	29	45	0	3	0	19	26	29	0	45		29	0	45
	Through-Right		0							0				0				0	
	Right	6	0	0	0	6	0	0	6	0	0	0	6	0	0		6	0	0
	Left-Through-Right		1							1				1				1	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	3	0	3	0	3	3	0	3	0	3	0	3	0	3		3	0	3
	Left-Through		0							0				0				0	
	Through	5	0	24	6	11	30	0	5	0	24	6	11	0	30		11	0	30
	Through-Right		0							0				0				0	
	Right	16	0	0	0	16	0	0	16	0	0	0	16	0	0		16	0	0
	Left-Through-Right		1							1				1				1	
	Left-Right		0							0				0				0	
EASTBOUND	Left	19	0	19	0	19	19	0	19	0	19	0	19	0	19		19	0	19
	Left-Through		0							0				0				0	
	Through	22	0	47	0	22	47	0	22	0	47	0	22	0	47		22	0	47
	Through-Right		0							0				0				0	
	Right	6	0	0	0	6	0	0	6	0	0	0	6	0	0		6	0	0
	Left-Through-Right		1							1				1				1	
	Left-Right		0							0				0				0	
WESTBOUND	Left	6	0	6	0	6	6	0	6	0	6	0	6	0	6		6	0	6
	Left-Through		0							0				0				0	
	Through	15	0	32	0	15	32	0	15	0	32	0	15	0	32		15	0	32
	Through-Right		0							0				0				0	
	Right	11	0	0	0	11	0	0	11	0	0	0	11	0	0		11	0	0
	Left-Through-Right		1							1				1				1	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES			*North-South:*	34		*North-South:*	48			*North-South:*	34			*North-South:*	48			*North-South:*	48
			East-West:	53		*East-West:*	53			*East-West:*	53			*East-West:*	53			*East-West:*	53
			SUM:	87		*SUM:*	101			*SUM:*	87			*SUM:*	101			*SUM:*	101
VOLUME/CAPACITY (*V/C*) RATIO:				0.073			0.084				0.073				0.084				0.084
V/C LESS ATSAC/ATCS ADJUSTMENT:				0.073			0.084				0.073				0.084				0.084
LEVEL OF SERVICE (LOS):				A			A				A				A				A

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.011	Δ*v/c* after mitigation:	0.011
Significant impacted?	NO	Fully mitigated?	N/A