Addendum to the Lower Busch Tank Improvement 2005 Negative Declaration

Malibu, California

Prepared for

Los Angeles County Waterworks District No.29 23533 Civic Center Way Malibu, CA 90265

Prepared by

Psomas 5 Hutton Center Drive, Suite 300 Santa Ana, California 92707 T: (714) 751-7373 F: (714) 545-8883

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TABLE OF CONTENTS

<u>Section</u>				<u>Page</u>
Section 1.0	Intro	duction		1
	1.1	Projec	t Background	1
	1.2	Purpo	se of an Addendum	2
	1.3	Findin	gs for Proposed Changes	2
	1.4	Measu	res, Project Design Features and Regulatory Requirements	35
Section 2.0	Proje	ct Desc	ription	11
	2.1	Projec	t Location	11
	2.2	Existir	ng Conditions	11
	2.3	Propo	sed Improvements	11
		2.3.1 2.3.2 2.3.3	Grading Construction and Phasing Project Approvals	12
	2.4	Existir	ng Zoning and General Plan Designations	13
Section 3.0	Envir	onment	al Analysis	15
	3.1	Aesthe	etics	16
		3.1.1 3.1.2	Summary of Previous Environmental Analysis Project Environmental Review	
	3.2	Agricu	ltural and Forestry Resources	18
		3.2.1 3.2.2	Summary of Previous Environmental Analysis Project Environmental Review	
	3.3	Air Qu	ality	21
		3.3.1 3.3.2	Summary of Previous Environmental Analysis Project Environmental Review	
	3.4	Biolog	ical Resources	31
		3.4.1 3.4.2	Summary of Previous Environmental Analysis Project Environmental Review	
	3.5	Cultur	al Resources	36
		3.5.1 3.5.2	Summary of Previous Environmental Analysis Project Environmental Review	
	3.6	Energ	y	40
		3.6.1 3.6.2	Summary of Previous Environmental Analysis Project Environmental Review	
	3.7	Geolo	gy and Soils	42
		3.7.1 3.7.2	Summary of Previous Environmental Analysis Project Environmental Review	

i

50
50 50
55
55 55
60
60 60
65
65 65
66
66 66
68
68 68
81
81 81
82
82 83
84
84 84
86
86 86
89
89 90
92
92 92
96
96 96

		3.21	Mandatory Findings of Significance	99
			3.21.1 Summary of Previous Environmental Analysis	99 100
Sectio	n 4.0	Summ	ary of Findings	103
Sectio	n 5.0	Repor	t Preparers	105
		5.1	County of Los Angeles WaterWorks	105
		5.2	Consultant	105
Sectio	n 6.0	Refere	ences	107
			TABLES	
<u>Table</u>				<u>Page</u>
1	Compa	arison o	f Project Components	3
2	Californ	nia and	Federal Ambient Air Quality Standards	22
3			ant Designations in the South Coast Air Basin	
4 5			Quality Significance Thresholdsximum Daily Construction Emissions Proposed Project	
6			nificance Threshold Construction Emissions Proposed Project	
7			alli Intensity Scale	
8			nual Greenhouse Gas Emissions From Construction	
9			al Annual Greenhouse Gas Emissions	
10			Guidelines for Noise Compatible Land Uses	
11 12			wable Noise Exposure Transportation Noise Sources	
13			Noise Levels at Noise-Sensitive Uses	
14			age Threshold Criteria	
15			oyance Criteria	
16			els for Construction Equipment	
17 18			oyance Criteria at Sensitive Usesnage Criteria at Nearby Structures	
.0		a. ba.		
			EXHIBITS	
<u>Exhibi</u>	<u>t</u>		<u>Fol</u>	lows Page
1				
2			aph	
3 4			phs	
5				
6				
7	Ringwa	all Foun	dation Section	11

iii

APPENDICES

Appendix

- Α Air Quality and Greenhouse Gas Analysis
- Cultural Records Search В
- С
- D
- Geotechnical Investigation Report Paleontological Records Search Radius Report (Hazardous Materials) Ε
- Noise Analysis F

İν

SECTION 1.0 INTRODUCTION

1.1 PROJECT BACKGROUND

The County of Los Angeles Department of Public Works Waterworks District No. 29 (District) operates the potable water system within a 47-square-mile service area comprising the City of Malibu and surrounding unincorporated areas. The District acquired several water facilities in the Malibu system from the Malibu Water Company in 1959, including the Lower Busch Tank. The District has an easement with Malibu Water Company to construct, repair, and maintain water facilities on the property.

The Lower Busch Tank is a potable water tank that was constructed in approximately 1947; it is located at 5731 South Busch Drive in Malibu, CA, and serves over 300 connections within the 325-foot pressure zone. Due to visible cracking, rust stains, and efflorescence on the tank, in 2000, the District authorized an inspection to be performed on the tank. The inspection report documented several cracks and poor concrete quality and determined that the tank did not meet American Water Works Association (AWWA) seismic standards (PSI 2000). Based on the information provided in the report, a tank retrofit was not economical. Consequently, the District elected to remove and replace the existing tank.

In 2003, in compliance with the California Environmental Quality Act (CEQA), the County prepared and circulated a Negative Declaration (ND) which was adopted by the Los Angeles County Board of Supervisors in 2005 to replace the existing concrete tank with a new steel tank (SCH No. 2003081124) based on preliminary conceptual designs. The tank as analyzed in the 2005 ND was proposed as 59 feet in diameter, 24 feet in height (part of which may have been below grade), and with capacity of 380,000 gallons. The project analyzed in the 2005 ND is henceforth referred to as the "Approved Project".

The ND adopted in 2005 is herein referred to as the 2005 ND respecting its findings regarding environmental impacts. The CEQA baseline set forth in the ND is that when the ND was circulated for public review in August 2003; thus, references in this Addendum to the environmental setting identified in the ND are conditions in 2003, not 2005; and are identified as such in the foregoing text.

In 2011, the County retained an engineer (Cannon) to design the replacement tank. Based on site investigations and discussions with the District, minor technical modifications to the design of the tank were made. Cannon summarized the final recommendations for the replacement tank in a July 17, 2012 Design Memorandum.

In 2018 the replacement tank was redesigned again. The redesigned tank is proposed to be 62 feet in diameter; 26 feet high and entirely above grade; and have a capacity of 385,000 gallons. The 2018 redesign is henceforth referred to as the Proposed Project.

On October 5, 2020, a Categorical Exclusion was approved by the Federal Emergency Management Agency for the installation of a backup generator system for the Lower Busch Pump Station to provide backup power when an outage occurs so the pump station may continue to supply adequate water for firefighting, drinking, and other community needs.

1.2 PURPOSE OF AN ADDENDUM

Section 15164 of the State CEQA Guidelines stipulates that a lead agency (County of Los Angeles) may prepare an addendum to an adopted ND "if only minor technical changes or additions are necessary or none of the conditions described in [State CEQA Guidelines] Section 15162 calling for the preparation of a subsequent EIR or negative declaration have occurred". Those conditions are:

15162(a): A new significant impact; a substantial increase in the severity of a previously identified significant impact (new or intensified significant impacts could be due to a change in the project, a change in existing conditions, or both); mitigation measures or alternatives previously found to be infeasible is determined to be feasible and would substantially reduce one or more significant impacts of the project, but the project proponents decline to adopt the mitigation measure or alternative; or mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR/MND would substantially reduce one or more significant impacts of the project, but the project proponents decline to adopt the mitigation measure or alternative.

15162(b): If changes to a project or its circumstances occur or new information becomes available after adoption of a negative declaration, the lead agency shall prepare a subsequent EIR if required under subdivision (a). Otherwise, the lead agency shall determine whether to prepare a subsequent negative declaration, an addendum, or no further documentation.

An addendum need not be circulated for public review but can be included in or attached to the adopted ND.

The present Addendum addresses impacts of the Tank as redesigned in 2018.

1.3 FINDINGS FOR PROPOSED CHANGES

In accordance with Section 15164(e) of the State CEQA Guidelines, the lead agency must provide a "brief explanation of the decision not to prepare a subsequent EIR pursuant to Section 15162 should be included in an addendum to an EIR, the lead agency's findings on the project, or elsewhere in the record. The explanation must be supported by substantial evidence". The following findings provide justification as to why an addendum, and not a subsequent EIR, is the appropriate document for the proposed modifications to the project:

(1) No substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

The 2005 ND analyzed impacts of replacing the existing concrete water tank with a steel tank measuring 24 feet high and with an outside diameter of 59-feet. The current (2018) replacement tank would be constructed at the same location after demolition of the existing water tank. The existing cylindrical 300,000-gallon concrete tank is a total of 21 feet high, 4 feet of which are buried below grade; it has an outside diameter of 52 feet. Table 1 provides a comparison of the project components.

TABLE 1 COMPARISON OF PROJECT COMPONENTS

	Existing Tank	Conceptual Tank Design Proposed in 2005 ND	2018 Proposed Tank Design
Material	Concrete	Steel	Steel
Diameter	52 feet	59 feet	62 feet
Height	21 feet total (18 feet above grade and 4 feet below grade)	24 feet total (unclear how much is below grade)	26 feet above grade (none is below grade)
Operational Capacity	300,000 gallons	380,000 gallons	385,000 gallons

As shown in Table 1, the dimensions and capacity of the currently proposed tank are very similar to the one analyzed in the adopted 2005 ND. The 2018 proposed steel tank would be approximately 26 feet high with an outside diameter of 62 feet. The 2018 proposed tank's diameter would be slightly larger (by three feet), and the height would be 2 feet taller than the 2005 design. Despite the slightly larger footprint, the 2018 proposed tank would have a greater operational capacity.

The minor disparity in the operational capacity of 5,000 gallons can be attributed to the differing engineering assumptions that were used in 2005 and 2018. The tank analyzed in the 2005 ND was based on preliminary conceptual designs – the tank design had not yet been finalized. In fact, the Geotechnical Engineering Report prepared in conjunction with the 2005 ND actually referred to a 58-foot tank, which is only slightly smaller than the currently proposed 62-foot tank (LACDPW 2003b). Therefore, the difference in operational capacity is negligible and for the purposes of this Addendum, the 2018 proposed tank is nearly identical to the one analyzed in the 2005 ND.

The environmental setting differs from that in 2003 analyzed in the ND due to burning of trees in the Woolsey Fire of November 2018. Several trees on the Project site burned, and several trees on the Busch Drive frontage next to the Project site also burned. Standing remnants of burned tamarisk trees were present in the southwest part of the site but have since been removed.

The Proposed Project includes the following components changed from the Approved Project:

- Relocate two 5,000-gallon temporary storage tanks to the northwest corner of the Project site from their current location at 21737 Azurelee Road in the City of Malibu, about 10 miles east of the Project site. Each temporary tank is about 8.5 feet in diameter and 12.5 feet high and would be transported by truck.
- Install a tank mounted blower. The blower is intended to minimize the formation of chlorine vapor inside the tank, to reduce the potential for chlorine corrosion. A blower would need to operate when there are significant temperature differences between the interior and exterior of the tank, such as dusk, and would not operate continuously. The blower would be encased in all-weather sound panels to absorb noise.

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Possible engineering discrepancies include the amount of "freeboard" available at the top of the tank. The freeboard area allows for containment of the sloshing wave height due to seismic activity, as well as any incidental water that fills the tank above the overflow outlet. Another discrepancy might be the location of the inlet/outlet piping on the tank. The area below the piping is considered to be "dead storage" because the water there is inaccessible.

• Replace existing chain link fencing on the site perimeter with an 8-foot architectural privacy fence with solid panels.

The remaining District facilities at the site would not require any alterations, including the pump station, the pressure relief valve, the flow meter vault, the pressure-reducing station, the concrete masonry block building. However, depending on the construction area needed to remove the existing tank and install the new one, some of the existing utilities may need to be relocated. This would mostly affect the water lines and the electrical conduits on the site that are in close proximity to the existing tank (Cannon 2012). These project components would be required in order to implement both the approved 2005 design and the 2018 proposed design.

The environmental impacts associated with the overall increase in size of the tank from the existing concrete tank were analyzed under the 2005 ND, and no significant environmental effects were identified. All potential short-term construction-related impacts and all long-term operational impacts were determined to be less than significant. As the currently proposed tank is almost identical to the tank analyzed in the 2005 ND, the Proposed Project does not incorporate substantial changes to the project that would require major revisions of the 2005 ND.

(2) No substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or Negative Declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

The site remains largely unchanged from 2003. The tank site, located at 5731 Busch Drive in Malibu, California, consists of a partially buried, 300,000-gallon-concrete tank, booster pumps and associated underground pipelines; a small concrete masonry block building that houses electrical panels and a restroom; buried leach lines for the restroom; and security fencing. The site is paved with aged asphalt concrete. The Project site is located within an established and fully developed residential community, with homes that border the Project site to the north, west, and south, and across Busch Drive to the east, with multiple trees located near the property lines. The Project site is fully paved and does not offer any opportunities for flora or fauna—including federally or State-listed species or species of special concern—to become established within the project limits.

As discussed under (1) above, the currently proposed tank is almost identical to the tank analyzed in the 2005 ND, and the minor changes in the tank design do not constitute substantial changes to the project. Additionally, no substantial changes have occurred with respect to the circumstances under which the project is undertaken that require major revisions to the 2005 ND, as there are no new significant environmental effects or increases in the severity of previously identified impacts.

- (3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the Negative Declaration was adopted, shows any of the following:
 - (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration;
 - (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR;
 - (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant

- effects of the project, but the project proponents decline to adopt the mitigation measure or alternative: or
- (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

The project does not include new information of substantial importance that was not known at the time the 2005 ND was adopted. As discussed above, the Proposed Project components are almost identical to the project that was analyzed in the 2005 ND. Only minor technical changes to the design of the tank are proposed. The new project would not create any new significant impacts, nor would it increase the severity of any impacts when compared to the project analyzed in the 2005 ND. While a new geotechnical study of the Project site was prepared by Ninyo & Moore in April 2012 (Ninyo & Moore 2012), the conclusions reached in the study are consistent with what was found in previous studies, such as the Geotechnical Engineering Report prepared by the County of Los Angeles Department of Public Works, Soils Investigation Unit for the ND (LACDPW 2003b).

1.4 MEASURES, PROJECT DESIGN FEATURES AND REGULATORY REQUIREMENTS

As all impacts were determined to be less than significant, no mitigation measures were required for the 2005 design, as set forth in the 2005 ND. While the adoption of mitigation measures is not required if significant impacts are not identified, it is not prohibited for a project proponent to voluntarily agree to measures to further minimize a less than significant environmental effect, thus the 2005 ND did include several measures to ensure compliance with applicable regulatory requirements and standard construction practices. The ND (p. 14) referenced these measures as "mitigation measures" even though the ND did not identify significant impacts and did not require mitigation measures to reduce such impacts. These measures are listed below.

Air Quality

- Control dust by appropriate means, such as watering and/or sweeping.
- Compliance with applicable air pollution control regulations.

Geology and Soils

Proper removal and disposal of excess soils and excavated materials.

Hazards and Hazardous Materials

- Proper maintenance of all construction equipment.
- Compliance with all applicable laws and ordinances regarding chemical cleanup.

Hydrology and Water Quality

 Compliance with all applicable Best Management Practices as required by the National Pollutant Discharge Elimination System permit issued to the County by the Regional Water Quality Control Board.

Noise

- Compliance with all applicable noise and ordinances during construction.
- Construction activities would be restricted to the County appointed construction times.

Transportation/Traffic

- Advance notification of all street and/or lane closures and detours to all emergency service agencies.
- Clear delineations and barricades to designate through traffic lanes.
- Compliance with all applicable laws and ordinances regarding the transportation routes for the haul of material.

No new mitigation measures are required as part of the minor changes to the project. In order to clarify the measures that were listed in the 2005 ND and to reflect the standard operating procedures that the County implements during water tank replacement projects, such as the Lower Busch Tank project, the project design features (PDFs) and regulatory requirements (RRs) have been included as part of this Addendum. These PDFs and RRs are not new or considerably different from those included in the 2005 ND; they merely specify how the measures will be implemented and cite the applicable State and local regulatory requirements.

The contents of some RRs or PDFs have changed somewhat since 2005; for instance, regarding PDF WQ-1, Los Angeles County Public Works (DPW) issued a Low Impact Development Standards Manual in 2014 replacing previous DPW stormwater quality standards.

The County shall confirm that these PDFs and RRs are included in the Contractor Specifications and that contractor compliance with these PDF and RR requirements are performed to the satisfaction of the County Department of Public Works.

Air Quality

RR AQ-1

Project contractors shall comply with South Coast Air Quality Management District (SCAQMD) Rule 403, Fugitive Dust, which requires the implementation of best available control measures (BACM) for any activity or man-made condition capable of generating fugitive dust, including, but not limited to, earth-moving activities, construction/demolition activities, disturbed surface area, or heavy- and light-duty vehicular movement (SCAQMD 1976). The BACMs include stabilizing soil; watering surface soils and crushed materials; covering hauls or providing freeboard; preventing track-out; and limiting vehicle speeds and wind barriers, among others. Rule 403 requires dust control, as necessary, to prevent visible emissions beyond the Project site property lines. Compliance with this Rule will result in a reduction in short-term particulate pollutant emissions. This measure shall be included by the County as notes in the Contractor Specifications

RR AQ-2

All off-road diesel-powered construction equipment greater than 50 horsepower (hp) shall meet U.S. Environmental Protection Agency (USEPA) Tier 3 or better off-road emissions standards. A copy of each unit's certified Tier specification shall be provided to the County at the time of mobilization of each applicable unit of equipment.

RR AQ-3

Electricity shall come from power poles rather than diesel- or gasoline-fueled generators, compressors, or similar equipment unless it is demonstrated to the County to not be feasible.

RR AQ-4 Construction contractors shall implement the following measures:

- a. All construction equipment shall be tuned and maintained in accordance with the manufacturer's specifications;
- b. Diesel truck idling time shall be five minutes or less, both on and off site; and
- c. Work crews shall shut off diesel equipment when not in use.

RR AQ-5 Construction contractors shall support and encourage ridesharing and incentives for the construction crews.

Biological Resources

RR BIO-1

To ensure compliance with the Migratory Bird Treaty Act, the County shall schedule all vegetation removal and grading activities during the non-breeding season (i.e., September 1 to January 31) to avoid impacts on active nests for common and special status birds. If project timing requires that vegetation clearing or grading occur between February 1 and August 31, the County shall retain a qualified Biologist (one with experience conducting nesting bird surveys) to conduct a pre-construction survey for nesting birds and raptors. A pre-construction survey shall be conducted by a qualified Biologist within 72 hours prior to vegetation clearing or the initiation of work during the breeding season. The pre-construction nesting bird survey area shall include the Project site (i.e., disturbance footprint) plus a 250-foot buffer to search for nesting birds and a 500-foot buffer to search for nesting raptors. If no active nests are found, no restriction on construction would be required.

If an active nest is observed during the survey, the Biologist shall delineate an appropriate buffer to protect the nest. A protective buffer zone (25 feet to 500 feet for nesting birds, 300 feet to 500 feet for nesting raptors) shall be used to protect nesting birds and nesting raptors. The size of the buffer shall be established at the discretion of the Biologist based on site topography, existing disturbance, status of the species, sensitivity of the individuals (established by observing the individuals at the nest), and the type of construction activity. No construction activities shall be allowed in the designated buffer until the Biologist determines that nesting activity has ended. Encroachment into the buffer area around a known nest will only be allowed if the Biologist determines that the proposed activity would not disturb the nest occupants. Construction may proceed within the buffer once the Biologist determines that nesting activity has ceased (i.e., fledglings have left the nest, or the nest has failed). The designated buffer will be clearly marked in the field and will be mapped as Environmentally Sensitive Areas (ESAs) on construction plans.

Cultural Resources

RR CULT-1

In accordance with Section 7050.5 of the California Health and Safety Code, if human remains are found during ground-disturbing activities, no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains shall occur until the County Coroner has determined, within two working days of notification of the discovery, the appropriate treatment and disposition of the human remains. The County Coroner shall be notified within 24 hours of the discovery. If the County Coroner determines that the remains are or believed to be Native American, s/he shall notify the Native American Heritage Commission (NAHC) in Sacramento within 24 hours of the discovery. In accordance with Section 5097.98 of the California Public Resources Code, the NAHC must immediately notify those persons it believes to be the most likely descended from the deceased Native American. The descendants shall complete their inspection within 48 hours of being granted access to the site by the property owner. The property owner would then determine, in consultation with a designated Native American representative, the final disposition of the human remains (14 California Code of Regulations §15064.5[e]). The County shall confirm this requirement is included in the Contractor Specifications, and contractor compliance with this requirement shall be performed to the satisfaction of the County Department of Public Works.

Geology and Soils

PDF GEO-1

The County of Los Angeles Department of Public Works shall review the *Geotechnical Evaluation, Lower Busch Tank Project, Malibu, California* (Ninyo & Moore 2012) and all additional geotechnical reports prepared for the Project site and shall confirm that all geotechnical recommendations provided in it have been fully and appropriately incorporated into the site preparation and building design specifications. Compliance with geotechnical report recommendations is required under Los Angeles County Public Works Grading Guidelines, and no mitigation is required to ensure implementation of this PDF.

The following RR would be applicable to the proposed Project. Because this RR is intended to ensure compliance with an existing law or regulation, it does not constitute new mitigation.

RR GEO-1

The Project shall be designed and constructed in compliance with the American Water Works Association (AWWA) Standard D-100; and the County Building Code, which incorporates, by reference, the 2019 California Building Code (CBC, or the most recent County building and seismic codes in effect at the time the grading plans are approved) to ensure the structural integrity of proposed site improvements against seismic shaking. The County shall confirm this requirement is included in the building plans and Contractor Specifications. Contractor compliance with this requirement shall be performed to the satisfaction of the County of Los Angeles Department of Public Works. Water storage facilities and pump structures required to maintain water pressure for fire suppression are classified as Essential Facilities by the 2019 CBC. CBC compliance is required for the Project, and no mitigation is required to ensure compliance with this RR.

Hazards and Hazardous Materials

PDF HAZ-1

During construction activities, LACDPW shall employ standard equipment and techniques to minimize fire hazards from activities generating sparks, such as welding and cutting ("hot work"); including keeping combustible materials clear of hot work areas; use of fire-retardant blankets to cover combustible materials when removal of such materials from near hot work areas is impracticable; and inspection of the work site at completion of hot work for any potential ignition.

The following RR would be applicable to the proposed Project. Because this RR is intended to ensure compliance with an existing law or regulation, it does not constitute new mitigation.

RR HAZ-1

During construction activities, hazardous materials encountered on the Project site requiring off-site disposal shall be transported off site by a properly licensed hazardous waste hauler who shall be in compliance with all applicable State and federal requirements, including California Department of Transportation (Caltrans) regulations. Hazardous materials that may be encountered during Proposed Project implementation shall be handled, treated, and/or disposed of in accordance with applicable regulations and/or the requirements of the local oversight agency(ies). The County shall confirm this requirement is included in the Contractor Specifications, and contractor compliance with this requirement shall be performed to the satisfaction of the County of Los Angeles Department of Public Works.

The following project design feature is incorporated into the project to minimize wildfire hazards from construction activities generating sparks. Because this is a design feature of the Proposed Project, it does not constitute new mitigation.

Hydrology and Water Quality

PDF WQ-1

Pursuant to Waste Discharge Requirements for Municipal Storm Water and Urban Runoff Discharges within County of Los Angeles, and the Incorporated Cities Therein, Except the City of Long Beach (Order No. R4-2012-0175), NPDES No. CAS004001), of which the City of Malibu is a co-permittee, the contractor shall develop and incorporate BMPs for reducing or eliminating construction-related pollutants in site runoff. The County shall confirm this requirement is included in the Contractor Specifications, and contractor compliance with this requirement shall be performed to the satisfaction of the County of Los Angeles Department of Public Works.

Transportation/Traffic

PDF TRANS-1

Construction traffic would be managed in compliance with the Federal Highway Administration's (FHWA's) *Manual on Uniform Traffic Control Devices* (FHWA 2009) and applicable City of Malibu requirements to limit roadway obstruction and the need for temporary detours. During times of heavy truck traffic, a flag person may be stationed at the Project site entrance to ensure the safety of through traffic.

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SECTION 2.0 PROJECT DESCRIPTION

2.1 PROJECT LOCATION

The Project site is at 5723 South Busch Drive in the City of Malibu in western Los Angeles County. Access to the site is from Pacific Coast Highway (State Route 1) about 0.9 mile to the south. The Pacific Ocean is about 0.9 mile southwest of the Project site. The Project site is mapped on Exhibit 1, *Vicinity Map*. The site is on the east slope of a small canyon and is at an elevation of about 315 feet above mean sea level (AMSL). Malibu Equestrian Park is about 0.25 mile to the south, and Malibu High School is about 0.5 mile to the southwest.

2.2 EXISTING CONDITIONS

The tank site consists of a 21-foot partially buried (18 feet above grade and 4 feet below grade), 300,000-gallon-concrete tank, booster pumps and associated underground pipelines; a small concrete masonry block building that houses electrical panels and a restroom; buried leach lines for the restroom; and security fencing. Exhibit 2, *Aerial Photograph*, shows existing conditions on and near the site. The site is approximately level and paved with aged asphalt concrete. The tank is 52 feet in diameter and 21 feet in total height. The tank is partially buried, with 18 feet above ground and 4 feet below ground (see Exhibit 3, *Site Photographs*). The Project site is located within an established and fully developed residential community, with detached single-family homes that border the Project site to the north (approximately 170 feet), west (approximately 140 feet), and south (approximately 80 feet), and across Busch Drive to the east, (approximately 160 feet) and multiple trees located near the property lines. The surrounding terrain has a south slope of about nine percent grade.

2.3 PROPOSED IMPROVEMENTS

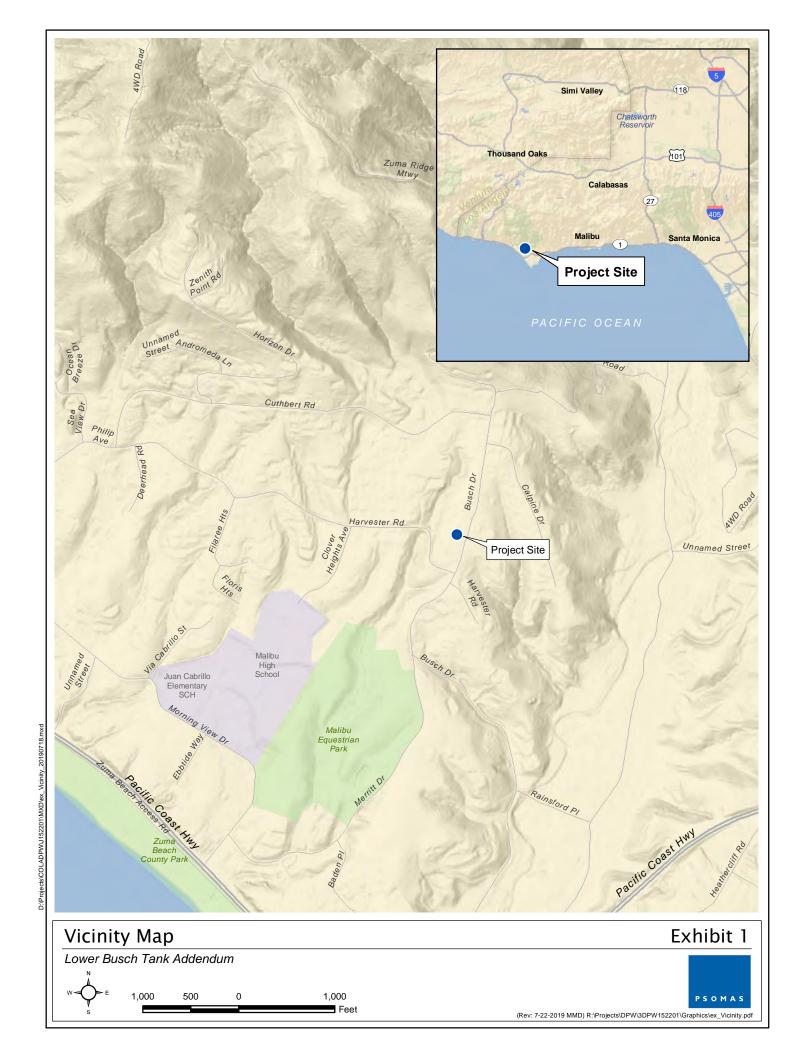
The proposed steel tank would be approximately 26 feet high, entirely above-ground, with an outside diameter of 62 feet and capacity of 385,000 gallons. Exhibit 4, *Site Plan*, shows the site plan, while Exhibit 5, *Elevation*, shows an elevation of the proposed tank. Exhibit 6, *Grading Plan*, shows the outline of the existing tank superimposed within the footprint of the proposed tank. The proposed tank would be seven feet higher above ground level than the existing tank.

The tank would be constructed on a reinforced concrete ringwall foundation. In the area circumscribed by the ringwall, a 12-inch-deep crushed aggregate base shall be placed, with four inches of oiled sand placed on top of the aggregate base. A cross-section of the proposed ringwall foundation is shown on Exhibit 7, *Ringwall Foundation Section*. The replacement tank would serve over 300 connections in the 325-foot pressure zone, as does the existing tank.

The inlet pipe to the tank is a 10-inch steel pipe connecting to an existing 12-inch water main in Busch Drive. The inlet pipe would connect to the east side of the tank at approximately 75 percent of the height of the tank, in order to mix colder incoming water with warmer water in the tank. By comparison, the inlet pipe to the existing tank attaches at the bottom of the tank. The outlet pipe is also a 10-inch steel pipe connecting to the bottom of the tank and to a water main in Busch Drive.

Proposed Project plans include installation of a parkway drain conveying overflow from the tank to South Busch Drive.

A stairway within a sheet metal enclosure, with a locking door at the foot of the enclosure, would be built on the southwest side of the tank. The base of the stairway would be at the stairway's





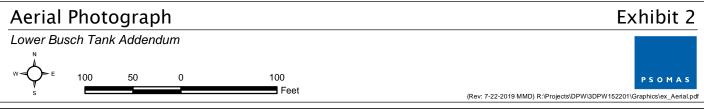




Photo 1. View southwest from the northeast corner of the project site showing the tank; part of the electrical and restroom building is visible on the right.



Photo 2. View looking southwest from the northwest part of the site of the electrical and restroom building in the west part of the site.

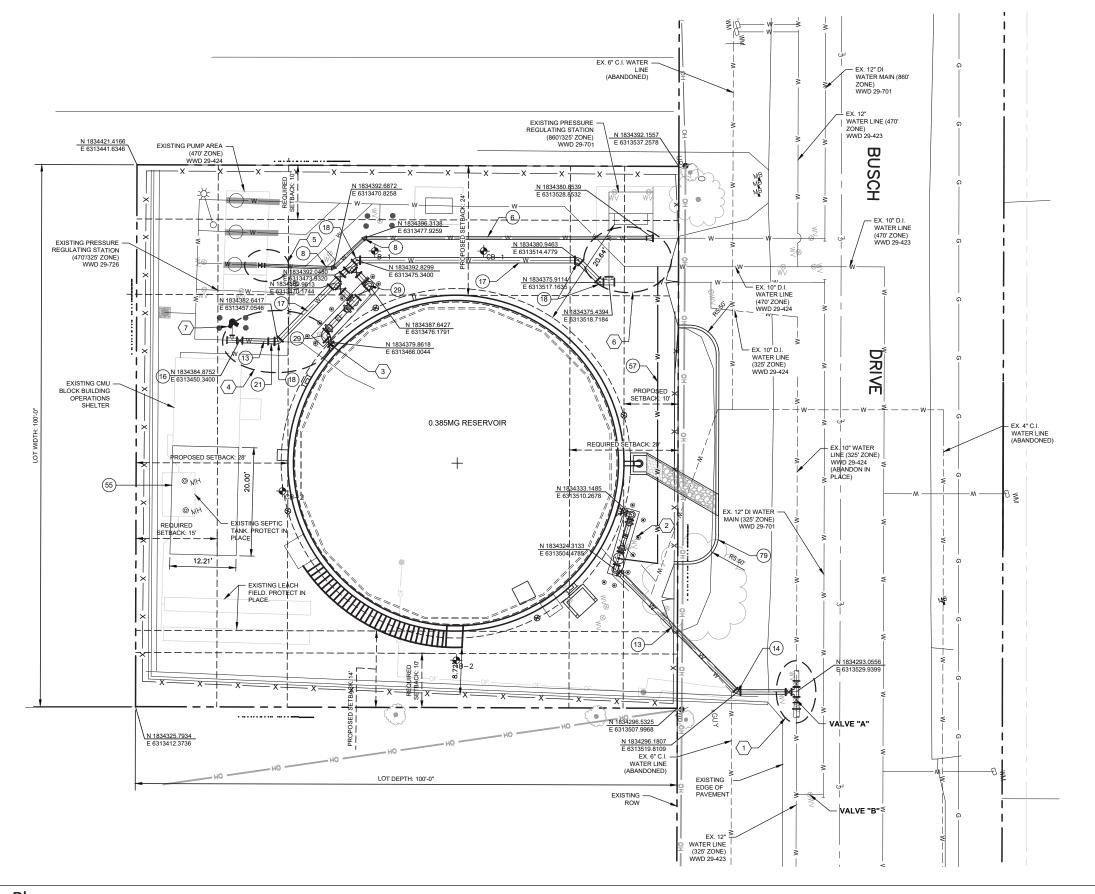


Photo 3. View looking southwest from the southeast part of the site of piping on the southeast side of the tank; the trailer in the background is offsite to the south.

Site Photographs

Lower Busch Tank Addendum





MATERIALS LIST:

6 6" STL STD WT PIPE, CML & CMC, CL F FLG

(14)

12" STD WT STL PIPE, CML & CMC.

(21) 12" X 10" STL REDUCER, FLG X FLG.

29 FLG.

(5) 12'-3" W x 20'-0" L x 8" THICK CONCRETE GENERATOR PAD. #6 REBAR AT 12" O.C AT MID HEIGHT OF PAD. RAISE SEPTIC TANK MANHOLE LIDS AND CAST INTO CONCRETE SLAB.

57) 1" COPPER WATER SERVICE FROM 470 PZ, CONNECTION PER STD PLAN W-36

(79) 6" MOW STRIP PER DETAIL 5 ON SHEET 13

CONSTRUCTION NOTES

1 TANK SUPPLY LINE CONNECTION, SEE DETAIL 1 ON SHEET 9.

2 10" RESERVOIR INLET PIPING, SEE DETAIL 2 ON SHEET 11

(3) 12" RESERVOIR OUTLET PIPING, SEE DETAIL 1 ON SHEET 11

 $\overline{igg(4igg)}$ TANK DISCHARGE CONNECTION, SEE DETAIL 2 ON SHEET 9.

 $\overline{\left(5\right)}$ 6" PUMP DISCHARGE CONNECTION, SEE DETAIL 4 ON SHEET 9

 $\boxed{6}$ 860 PZ AND 325 PZ CONNECTION, SEE DETAIL 3 ON SHEET 9

 $\overline{7}$ EX. 4" EMERGENCY PUMP CONNECTION

INTERCONNECTION NOTES:

1. AFTER COMPLETION OF THE WATER MAIN INSTALLATION, SATISFACTORILY COMPETING BACTERIOLOGICAL AND PRESSURE TESTS IN ACCORDANCE WITH SECTION W OF THE SPECIAL PROVISIONS, AND AFTER APPROPRIATE VALVES "A" AND "B" HAVE BEEN CLOSED BY AGENCY PERSONNEL, THE CONTRACTOR (UNDER AGENCY SUPERVISION) SHALL REMOVE THE INTERFERING PORTION OF THE 10-INCH WATER MAIN, INSTALL VALVES, AND COMPLETE THE INTERCONNECTION AS SHOWN ON THE PLANS, SEE GENERAL NOTE 10 ON SHEET 2. THE CONTRACTOR SHALL NOTIFY ALL AFFECTED AGENCY CUSTOMERS AND THE FIRE DEPARTMENT NO LESS THAN 48 HOURS PRIOR TO LOSS OF SERVICE. SHUTDOWN TIME SHALL NOT EXCEED 3 HOURS.

Source: Cannon Corporation, 2019

Site Plan

Lower Busch Tank Addendum



Map not to scale

(03/12/2024 PLO) R:\Projects\DPW156\3DPW870901_Lower Busch\Graphics\ex_Site_Plan.pdf

P S O M A S

Source: Cannon Corporation, 2019

Elevation

Lower Busch Tank Addendum



Exhibit 5

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LEGEND



OVEREXCAVATION AND RECOMPACTION ZONE



LIMITS OF GRADING OPERATIONS

CONSTRUCTION NOTES:

- 1 EXISTING TANK RADIUS = 26'.
- 2 NEW RINGWALL INTERIOR RADIUS = 30'.
- 3 NEW TANK RADIUS = 31'.
- 4 NEW RINGWALL OUTSIDE RADIUS = 32'.
- (3' BEYOND RINGWALL AT A 1:1 SLOPE)
- 6 GRADING LIMITS RADIUS = 42'.
- 7 MINIMUM BURIED DEPTH OF RINGWALL = 2'.
- 8 EXISTING SEPTIC TANK TO REMAIN IN SERVICE.
- 9 EXISTING LEACH FIELD TO REMAIN IN SERVICE.

GENERAL NOTES:

- CONTRACTOR SHALL PROTECT ALL EXISTING STRUCTURES IN PLACE THAT ARE OUTSIDE OF THE GRADING LIMITS.
- REFER TO DEMOLITION AND BYPASS PLAN SHEETS FOR REMOVAL OF UTILITY CONFLICTS DURING GRADING OPERATIONS.
- THE SOILS ENGINEER OF RECORD WILL INSPECT AND APPROVE THE FOUNDATION EXCAVATIONS BEFORE STEEL OR CONCRETE IS PLACED. THE CONTRACTOR SHALL NOT PLACE ANY MATERIALS FOR THE NEW FOUNDATION WITHOUT PRIOR WRITTEN APPROVAL FROM THE ENGINEER.

Source: Cannon Corporation, 2019

Exhibit 6

Grading Plan

Lower Busch Tank Addendum



Map not to scale

P S O M A S (03/12/2024 PLO) R:\Projects\DPW156\3DPW870901_Lower Busch\Graphics\ex_Grading_Plan.pdf

Source: Cannon Corporation, 2019

Ringwall Foundation Section

Lower Busch Tank Addendum



Exhibit 7

(03/12/2024 PLO) R:\Projects\DPW156\3DPW870901_Lower Busch\Graphics\ex_Ringwall_Section.pdf

west end, and the top at its south end. Handrails would extend north partway across the roof of the tank from the top of the stairs.

The currently Proposed Project also includes the following onsite improvements in addition to those included in the 2005 approved ND:

- Relocate two 5,000-gallon temporary storage tanks to the northwest corner of the Project site from their current location at 21737 Azurelee Road in the City of Malibu, about 10 miles east of the Project site. Each temporary tank is about 8.5 feet in diameter and 12.5 feet high and would be transported by truck.
- Install a tank mounted blower. The blower is intended to minimize the formation of chlorine vapor inside the tank, to reduce the potential for chlorine corrosion. A blower would need to operate when there are significant temperature differences between the interior and exterior of the tank, such as dusk, and would not operate continuously. The blower would be encased in all-weather sound panels to absorb noise.
- Replace existing chain link fencing on the site perimeter with new 8-foot architectural vehicular access gate with solid panels;
- Installation of exterior safety lighting.

2.3.1 GRADING

The amount of grading on the site would be determined by the type of shoring used by the contractor. It is anticipated that total on-site grading would impact approximately 7,500 square feet of the 10,000 square foot Project site, and there would be no off-site grading. As recommended in the geotechnical report, the site must be over-excavated and recompacted to the depth of the existing tank foundation or three feet below the proposed tank foundation, whichever is deeper. Because the new tank would be constructed at grade, the footing for the existing tank would determine the required grading depth. The existing footing is between 4 feet and 5 feet deep, and another 3 feet of excavation puts the expected depth of the site grading at 8 feet deep. Project development is expected to involve approximately 400 cubic yards (cy) of soil export and 600 cy of soil import. Grading is anticipated to last for one month. The project grading plan is shown on Exhibit 5. Grading quantity was not specified in the 2005 ND; however, as the entire tank in the Proposed Project would be above-grade, the Proposed Project is not expected to involve increased grading compared to the Approved Project.

2.3.2 CONSTRUCTION AND PHASING

The currently proposed Project construction activities are anticipated to require approximately 1 year total, commencing in the fall of 2026 (subject to change). Project construction is proposed in two major phases: demolition of the existing tank and construction of the new tank. There will be two 5,000-gallon temporary storage tanks installed on a concrete pad and connected to existing water piping and appurtenances which will be in service throughout the duration of the construction period. Construction subphases would include site preparation, grading, foundations, and tank erection. Construction staging would be located on a small portion of the Malibu Equestrian Park in the City of Malibu, near the intersection of Busch Drive and Merritt Drive, approximately 0.30 miles southwest of the Project site. The staging would occur on an empty parking lot and associated dirt area at the equestrian park, which would require an agreement with the Santa Monica Malibu Unified School District.

Demolition activities, including demolition of the existing tank and appurtenances, would occur over an approximate 3-week period and would use equipment including, but not limited to, a

backhoe, loader, jackhammer, excavator, and dump trucks. Grading would occur over an approximate 4-week period and would result in approximately 400 cy of materials being hauled off-site. Anticipated equipment during this phase would include, but is not limited to, an excavator, backhoe, loader, dozer, and dump trucks.

Construction of the Approved Project would have consisted of two phases, demolition and construction; equipment for each phase is expected to have been generally similar to that for the Proposed Project.

As with the previously approved project, underground infrastructure and utilities construction would occur over an approximately 4-week period and tank foundation construction would last approximately 3 weeks, with an estimated 55 cy of concrete required. Construction of the tank would occur over an approximately 4-month period and would involve a crane, backhoe, and welding equipment. The painting of the tank would require sand blasting and architectural coatings, and paving would require asphalt across the entire site except the proposed tank footprint.

Construction duration for the Approved Project was not specified in the 2005 ND.

2.3.3 PROJECT APPROVALS

The following discretionary approvals are required for project implementation:

- Los Angeles County Board of Supervisors acting on behalf of the Los Angeles County Water Works District 29: Project Approval
- California Coastal Commission: City of Malibu Local Coastal Development Permit

The following ministerial permits are also required for project implementation:

- City of Malibu: Permit for Encroachment into South Busch Drive
- Southern California Edison: Utility Relocation

On July 20, 2020, the City of Malibu approved Variance No. 13-042 as part of Planning Commission Resolution No. 20-23 for the height of the water tank to exceed the maximum height of 26 feet.

2.4 EXISTING ZONING AND GENERAL PLAN DESIGNATIONS

The existing zoning district onsite is RR2, Rural Residential, which permits single-family residential units on lots of two acres or larger. The existing General Plan land use designation onsite is Rural Residential, which permits large lot single-family development with lots ranging from 1 to 40 acres. The Project site is also in the Coastal Zone and subject to the City of Malibu's Local Coastal Program.

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SECTION 3.0 ENVIRONMENTAL ANALYSIS

This portion of the Addendum examines each environmental topical issue analyzed in the 2005 ND. The Addendum includes additional areas of analysis, including forestland resources and greenhouse gas emissions, pursuant to the 2010 amendments to the State CEQA Guidelines, and addresses the Tribal Cultural Resources and Wildfire pursuant to the 2018 amendments to the State CEQA Guidelines. An addendum to a CEQA document is intended to demonstrate that the modifications/alterations to the previously approved project would not substantially increase environmental impacts or create any new significant impacts. The following analysis documents why and how this conclusion has been made.

Note that while the 2005 ND did not identify significant impacts due to development of the Approved Project, the ND included several mitigation measures identified below in the relevant topical sections of this Addendum which are the following six environmental impact areas: air quality, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, and transportation and traffic. The ND also included embedded mitigation set forth in the environmental analysis text which is also identified below in the relevant topical sections. The mitigation measures specified in the ND would apply to the Proposed Project.

This Addendum also sets forth project design features that clarify and specify how, when, and by whom mitigation measures would be implemented. Note that the project design features are regulatory requirements that applied to the Approved project as well as the Proposed project. Mitigation is not required for impacts determined to be less than significant after implementation of existing regulatory requirements, and regulatory requirements are not mitigation.

Organization of Environmental Analysis

This portion of the Addendum is divided into 20 topical sections each covering one of the CEQA topics specified in CEQA Guidelines Appendix G, Environmental Checklist Form, contained in the CEQA Guidelines Update approved by the Office of Administrative Law in December 2018. Each topical section in turn is divided into three subsections: 1, Summary of Previous Environmental Analysis (the 2005 ND); 2, Proposed Project Environmental Review; and a conclusion substantiating that none of the conditions requiring subsequent CEQA analysis apply to the Proposed Project.

Consideration of Cumulative Impacts

The Proposed Project is not part of a series of projects at Lower Busch Tank. The City of Malibu Planning Department website does not list proposed projects within 0.5 mile of the Proposed Project site (Malibu 2020). A Civic Center Storm Drain Repair project undertaken by the City of Malibu, currently in its design phase, consists of storm drain improvements in the Civic Center area directing stormwater flow into Legacy Park. Malibu Civic Center is approximately seven miles east of the Project site; at that distance, impacts of that project will not combine with impacts of the Proposed project to result in significant cumulative impacts.

Water Works District 29 does not list Priority Projects near enough to the Proposed Project site such that impacts of those projects would combine with impacts of the Proposed Project to cause significant cumulative impacts. The nearest District priority project to the Proposed Project site is a Creek Crossing Project near the intersection of Bonsall Drive and SR-1 approximately 0.9 mile south of the Proposed Project site (WWD29 2020). No related projects are identified in this Addendum, and no further consideration of cumulative impacts is required.

3.1 **AESTHETICS**

3.1.1 SUMMARY OF PREVIOUS ENVIRONMENTAL ANALYSIS

The ND concluded that development of the Approved Project would not adversely affect scenic vistas or scenic resources — such as trees, rock outcroppings, or historic buildings — within a state scenic highway. The Project site is screened from surrounding residences by trees; thus, the ND determined that Approved Project development would have less than significant impacts on the visual character of the site and surroundings. The Approved Project did not propose lighting or surfaces that could generate glare, and the ND found that the Approved Project would not adversely affect views in the area due to new sources of light or glare.

3.1.2 PROJECT ENVIRONMENTAL REVIEW

The Proposed Project includes several components differing from the Approved Project, including installation of safety lights; installation of a tank-mounted blower with ducting connected to the tank headspace; relocation of two 5,000-gallon temporary storage tanks to the northwest corner of the Project site from another site several miles away; removal of standing remnants of three burned trees from the Project site; and replacement of chain link fencing and gates on the site perimeter.

Existing conditions on and next to the site differ from those in 2003 identified in the ND in that several trees onsite and next to the east site boundary burned in 2018; standing remnants of three burned trees are present in the southwest part of the site.

		New Significant Environmental Effect Caused by a Change in the Project or Circumstances	Substantial Increase in the Severity of a Previously Identified Significant Effect Caused by a Change in the Project or Circumstances	New or Substantially More Severe Significant Impacts Shown by New Information	Ability to Substantially Reduce a Significant Effect Shown by New Information but Declined by Proponent
3.1.2	Would the project:				
a.	Have a substantial adverse effect on a scenic vista?	No	No	No	No
b.	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	No	No	No	No
C.	In nonurbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	No	No	No	No
d.	Create a new source of substantial light or glare which would adversely affect daytime or nighttime views in the area?	No	No	No	No

Impact Discussion

Would the project:

a) Have a substantial adverse effect on a scenic vista?

No Subsequent Analysis Required. No impacts to scenic vistas were identified in the ND. The proposed tank would not be constructed in or near designated vistas or scenic highways within the project area. There are no scenic vistas visible from the Project site, and Proposed Project development would not adversely affect a scenic vista. Therefore, the project impact would continue to be negligible and would not result in adverse impacts on scenic vistas.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway or local scenic expressway, scenic highway, or eligible scenic highway?

No Subsequent Analysis Required. No impacts to scenic resources within a State Scenic Highway were identified in the ND. The Project site is not in or near a State scenic highway; the nearest such highway is State Route 2 (SR-2 or the Angeles Crest Highway), about 40 miles to the east (Caltrans 2019). Therefore, Proposed Project development would not damage scenic resources in a State scenic highway. There are no scenic resources onsite; site photographs are shown on Exhibit 3, Site Photographs and depict the existing tank; the restroom and electrical building; several pipes, and asphalt pavement. The proposed tank is 62 feet in diameter with a vent 26 feet above the existing grade on the north side of the tank, while the existing tank is 52 feet in diameter. There are three designated County scenic highways in the project region: (1), Mulholland Highway west of State Route 23, about 5 miles northwest of the Project site: (2), Mulholland Highway, a segment extending east and west from Malibu Canyon Road/Las Virgenes Road, about 7 miles northeast of the Project site; and Malibu Canyon Road/Las Virgenes Road, about 7 miles east of the Project site (Los Angeles County 2017). State Route 1, about 0.9 mile south of the Project site, is an eligible State scenic highway and an eligible Los Angeles County scenic highway (Caltrans 2019; Los Angeles County 2017). The Project site is not visible from SR-1 nor from any of the aforementioned designated or eligible scenic highways, nor would the Proposed Project once completed be visible from those vantages. Project development would not affect scenic resources as observed from any of those scenic highways. and no impact would occur. Proposed Project implementation would not cause new significant impacts or increased impacts and would not require mitigation. No subsequent analysis is required.

c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

No Subsequent Analysis Required The Proposed Project consists of replacing an existing water tank with a new tank that is slightly larger in diameter (62 feet as opposed to the existing 59 feet) and height (26 feet tall as opposed to the existing 24 feet) (see Exhibit 6, *Grading Plan*). None of the changes to the Project compared to the Approved Project would substantially change the visual character of the Project site. As previously discussed, the proposed height of 26 feet would be consistent with Variance No 13-042 approved by the City of Malibu in July 2020.

The Project site is visible from residences to the north, south, and west; from Busch Drive; and from residences to the east across Busch Drive from the Project site. The existing tank shows

visible evidence of corrosion and wear. Because the project would replace an existing tank with a new tank, the proposed tank replacement would not substantially degrade the existing visual character of the site and surroundings. Thus, the Proposed Project development would not substantially degrade the existing visual character of the site or surroundings compared to the Approved Project as analyzed in the 2005 ND.

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

No Subsequent Analysis Required. The Proposed Project would include installation of exterior safety lighting. Safety lighting would be shielded to limit light trespass onto surrounding residential properties to no more than 0.1 foot-candle pursuant to City of Malibu Municipal Code Section 17.41.050(G)(1). Lighting at the building entrance and at the driveway entrance may remain lit all night; any other safety lighting installed must be extinguished by 11:00 PM except for lighting activated by motion sensor which extinguishes ten (10) minutes after activation, pursuant to City of Malibu Municipal Code Section 17.41.060(C)(2). Proposed safety lighting would not generate substantial light trespass or glare adversely affecting nighttime views in the area. that would generate glare. The tank exterior would be painted steel. Thus, Proposed Project development would not adversely affect daytime or nighttime views in the area due to light or glare as identified in the 2005 ND.

Conclusion

Overall, the Proposed Project would be consistent with the project analyzed in the 2005 ND. The ND concluded that impacts of Approved Project implementation to aesthetics would be less than significant. As detailed above, the Proposed Project would be substantially the same as the previously Approved Project in location, massing, and appearance; therefore, development would not create a new significant impact or substantial increase in the severity of previously identified effects. In regard to Section 15162 of the State CEQA Guidelines, the Proposed Project (1) would not propose substantial changes; (2) would not have circumstantial changes under which the project is undertaken; and (3) would bring about no new information of substantial importance that would (a) create new significant impacts, (b) increase the severity of previously examined effects, (c) determine that mitigation measures or alternatives previously found not to be feasible would, in fact, be feasible, or (d) introduce mitigation measures that are considerably different from those analyzed in the previous documents. For these reasons, there are no major revisions required to the aesthetics analysis provided in the ND.

3.2 AGRICULTURAL AND FORESTRY RESOURCES

3.2.1 SUMMARY OF PREVIOUS ENVIRONMENTAL ANALYSIS

The ND determined that no impact to agricultural resources would occur, as the Project site is paved and is not mapped as important farmland or zoned for agricultural use.

3.2.2 PROJECT ENVIRONMENTAL REVIEW

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.

The Proposed Project includes several components differing from the Approved Project, including installation of safety lights; installation of a tank-mounted blower with ducting connected to the tank headspace; relocation of two 5,000-gallon temporary storage tanks to the northwest corner of the Project site from another site several miles away; removal of standing remnants of three burned trees from the Project site; and replacement of chain link fencing and gates on the site perimeter.

Existing conditions on and next to the site differ from those of 2003 identified in the ND in that several trees onsite and next to the east site boundary burned in 2018; standing remnants of three burned trees are present in the southwest part of the site.

		New Significant Environmental Effect Caused by a Change in the Project or Circumstances	Substantial Increase in the Severity of a Previously Identified Significant Effect Caused by a Change in the Project or Circumstances	New or Substantially More Severe Significant Impacts Shown by New Information	Ability to Substantially Reduce a Significant Effect Shown by New Information but Declined by Proponent
3.2.2	Would the project:				
a.	Convert Prime Farmland, Unique Farmland or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	No	No	No	No
b.	Conflict with existing zoning for agricultural use, or a Williamson Act contract?	No	No	No	No
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))?	No	No	No	No
d.	Result in the loss of forest land or conversion of forest land to non-forest use?	No	No	No	No
е.	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	No	No	No

Impact Discussion

Would the project:

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use?

No Subsequent Analysis Required. The Project site is mapped as Urban and Built-Up Land, and not as important farmland, on the California Important Farmland Finder maintained by the Division of Land Resource Protection (DLRP 2019). Consistent with the findings of the 2005 ND, the Proposed Project development would not impact mapped important farmland and no new or substantially increased impact would occur.

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

No Subsequent Analysis Required. The Project site is zoned for rural residential use (RR2) and is not zoned for agricultural use. Williamson Act contracts restrict the use of privately-owned land to agriculture and compatible open space uses under contract with local governments; in exchange, the land is taxed based on actual use rather than potential market value. The Project site is not subject to a Williamson Act contract. Consistent with the finding of the ND, no new or increased impacts would occur; no mitigation is required; and no subsequent analysis is required.

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))?

No Subsequent Analysis Required. The Project site is paved and developed with a water tank and does not support forest or woodland vegetation. Impacts to forestry resources were not analyzed in the 2005 ND, as thresholds addressing forestry resources were added to the Environmental Checklist in 2010. No new or increased impacts would occur; no mitigation is required; and no subsequent analysis is required.

d) Result in the loss of forest land or conversion of forest land to non-forest use?

No Subsequent Analysis Required. The Project site is paved and developed with a water tank and does not support forest or woodland vegetation. Impacts to forestry resources were not analyzed in the 2005 ND. No new or increased impacts would occur; no mitigation is required; and no subsequent analysis is required.

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?

No Subsequent Analysis Required. As explained in the responses to Sections 3.2.2(a) through 3.2.2(d), no impacts to farmland or forestry resources would occur.

Conclusion

Overall, the Proposed Project would be consistent with the project analyzed in the 2005 ND; as detailed above, there are no designated areas of farmland or forestry resources which would be impacted by the Proposed Project. The ND concluded that Approved Project implementation

would not impact agricultural resources. Proposed Project development would not create a new significant impact or substantial increase in the severity of previously identified effects. In regard to Section 15162 of the State CEQA Guidelines, the Proposed Project (1) would not propose substantial changes; (2) would not have circumstantial changes under which the project is undertaken; and (3) would bring about no new information of substantial importance that would (a) create new significant impacts, (b) increase the severity of previously examined effects, (c) determine that mitigation measures or alternatives previously found not to be feasible would, in fact, be feasible, or (d) introduce mitigation measures that are considerably different from those analyzed in the previous documents. For these reasons, there are no major revisions required to the agricultural and forestry resources analysis provided in the ND.

3.3 AIR QUALITY

3.3.1 SUMMARY OF PREVIOUS ENVIRONMENTAL ANALYSIS

The 2005 ND determined that Approved Project development would not conflict with the applicable air quality plan, because the District's standard practice is to comply with dust control measures set forth in the Air Quality Management Plan. It was determined that Project operation would not impact air quality. The 2005 ND found that project construction would comply with District standard conditions specified on contract documents, including equipping construction equipment with emissions control devices; and thus, project construction would not impact air quality. It was also found that compliance with standard conditions would also limit air quality impacts on sensitive receptors to less than significant. Objectionable odor impacts could occur during construction but would be temporary and thus less than significant. The ND did not require mitigation measures for air quality impacts.

Previously Approved Measures

As all impacts were determined to be less than significant, no mitigation measures were required for the 2005 design; however, the following measures were included in the analysis in connection with the 2005 ND; was applicable to the Approved Project; and would also be applicable to the proposed Project. The ND identified less than significant impacts for air quality impacts, did not identify significant impacts, and did not state that mitigation measures were required to reduce impacts to less than significant.

- **MM AQ-1** Control dust by appropriate means, such as watering and/or sweeping.
- **MM AQ-2** Compliance with applicable air pollution control regulations.

Existing Conditions

Air quality in the City of Malibu is regulated by the SCAQMD, which is the agency principally responsible for comprehensive air pollution control in the South Coast Air Basin (SoCAB). Both the State of California and the US Environmental Protection Agency (EPA) have established health-based Ambient Air Quality Standards (AAQS) for air pollutants, which are known as "criteria pollutants". The AAQS are designed to protect the health and welfare of the populace within a reasonable margin of safety. The AAQS for ozone (O₃), carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), respirable particulate matter with a diameter of 10 microns or less (PM10), PM2.5, and lead are shown in Table 2, California and Federal Ambient Air Quality Standards.

Regional air quality is defined by whether the area has attained or not attained State and federal air quality standards, as determined by air quality data from various monitoring stations. Areas

that are considered in "nonattainment" are required to prepare plans and implement measures that will bring the region into "attainment". When an area has been reclassified from nonattainment to attainment for a federal standard, the status is identified as "maintenance", and there must be a plan and measures established that will keep the region in attainment for the following ten years.

TABLE 2
CALIFORNIA AND FEDERAL AMBIENT AIR QUALITY STANDARDS

Pollutant Averaging Time		California	Federal Standards		
		Standards	Primary ^a	Secondary ^b	
	1 Hour	0.09 ppm (180 μg/m ³)	-	ı	
Оз	8 Hour	0.070 ppm (137 μg/m³)	0.070 ppm (137 µg/m³)	Same as Primary	
PM10	24 Hour	50 μg/m³ 150 μg/m³		Same as Primary	
FIVITO	AAM	20 μg/m³	-	Same as Primary	
PM2.5	24 Hour	-	35 μg/m³	Same as Primary	
FIVIZ.J	AAM	12 μg/m³	12.0 μg/m ³	15.0 μg/m³	
	1 Hour	20 ppm (23 mg/m ³)	35 ppm (40 mg/m ³)	I	
со	8 Hour	9.0 ppm (10 mg/m ³)	9 ppm (10 mg/m ³)	-	
00	8 Hour (Lake Tahoe)	6 ppm (7 mg/m³)	-	-	
NO ₂	AAM	0.030 ppm (57 μg/m ³)	0.053 ppm (100 μg/m ³)	Same as Primary	
INO ₂	1 Hour	0.18 ppm (339 µg/m ³)	0.100 ppm (188 μg/m ³)	_	
	24 Hour	0.04 ppm (105 µg/m ³)	_	_	
SO ₂	3 Hour	_	_	0.5 ppm (1,300 μg/m³)	
	1 Hour	0.25 ppm (655 µg/m ³)	0.075 ppm (196 μg/m ³)	_	
	30-day Avg.	1.5 μg/m ³	-	_	
Lead	Calendar Quarter	_	1.5 μg/m³	Same as Primary	
	Rolling 3-month Avg.	_	0.15 μg/m ³	Same as Filmary	
Visibility Reducing Particles	8 Hour	Extinction coefficient of 0.23 per km – visibility ≥ 10 miles (0.07 per km – ≥30 miles for Lake Tahoe)	e) No		
Sulfates	24 Hour	25 μg/m³			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 μg/m³)			
Vinyl Chloride	24 Hour	0.01 ppm (26 μg/m³)			

 O_3 : ozone; ppm: parts per million; μ g/m³: micrograms per cubic meter; PM10: respirable particulate matter 10 microns or lessmi in diameter; AAM: Annual Arithmetic Mean; –: No Standard; PM2.5: fine particulate matter 2.5 microns or less in diameter; CO: carbon monoxide; mg/m³: milligrams per cubic meter; NO₂: nitrogen dioxide; SO₂: sulfur dioxide; km: kilometer.

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

Source: CARB 2016

^a National Primary Standards: The levels of air quality necessary, within an adequate margin of safety, to protect the public health.

National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

For CARB, an "Unclassified" designation indicates that the air quality data for the area are incomplete and do not support a designation of attainment or nonattainment. Table 3, Criteria Pollutant Designations in the South Coast Air Basin, summarizes the current attainment status of the SoCAB for the criteria pollutants.

TABLE 3
CRITERIA POLLUTANT DESIGNATIONS
IN THE SOUTH COAST AIR BASIN

Pollutant	State	Federal
O₃ (1-hour)	Nonattainment	No Standard
O₃ (8-hour)	Nonattainment	Nonattainment
PM10	Nonattainment	Attainment/Maintenance
PM2.5	Nonattainment	Nonattainment
СО	Attainment	Attainment/Maintenance
NO ₂	Attainment	Attainment/Maintenance
SO ₂	Attainment	Attainment
Lead	Attainment	Nonattainment/Attainment ^a
Visibility-Reducing Particles	Unclassified ^b	
Sulfates	Attainment	No Standards
Hydrogen Sulfide	Unclassified	

O₃: ozone; PM10: respirable particulate matter with a diameter of 10 microns or less; PM2.5: fine particulate matter with a diameter of 2.5 microns or less; CO: carbon monoxide; NO₂: nitrogen dioxide; SO₂: sulfur dioxide; SoCAB: South Coast Air Basin.

Source: SCAQMD 2016

 O_3 is formed by photochemical reactions between NOx and VOCs rather than being directly emitted. O_3 is the principal component of smog. Elevated O_3 concentrations cause eye and respiratory infection; reduce resistance to lung infection; and may aggravate pulmonary conditions in persons with lung disease. O_3 is also damaging to vegetation and untreated rubber. The entire SoCAB is designated as a nonattainment area for the State one-hour O_3 standard.

CO is formed by the incomplete combustion of fossil fuels, almost entirely from automobiles. It is a colorless, odorless gas that can cause dizziness, headaches, and fatigue. The SoCAB is designated as an attainment area for federal CO standards.

 NO_2 (a "whiskey brown"-colored gas) and nitric oxide (NO) (a colorless, odorless gas) are formed from combustion devices. These compounds are referred to as NO_x . NO_x is a primary component of the photochemical smog reaction. The severity of health effects of NO_x depends primarily on the concentration inhaled. Acute symptoms cans include coughing, difficulty breathing, vomiting, headache, and eye irritation. Respiratory symptoms may also increase in severity after prolonged exposure.

 SO_2 is a corrosive gas that is primarily formed from the combustion of fuels containing sulfur (e.g., from power plants) and heavy industry that use coal or oil as fuel. SO_2 irritates the respiratory tract and can result in lung disease and breathing problems for asthmatics. Atmospheric SO_2 also contributes to acid rain.

^a Los Angeles County is classified as nonattainment for lead; the remainder of the SoCAB is in attainment of State and federal standards.

^b "Unclassified" designation indicates that the air quality data for the area are incomplete and do not support a designation of attainment or nonattainment.

Lead is found in old paints and coatings, plumbing, and a variety of other materials including gasoline anti-knock additives. Once in the blood stream, lead can cause damage to the brain, nervous system, and other body systems. Children are highly susceptible to the effects of lead. However, lead emissions have significantly decreased due to the near elimination of the use of leaded gasoline.

Particulate Matter is the term used for a mixture of solid particles and liquid droplets found in the air. Respirable particulate matter (i.e., PM10) derives from a variety of sources including road dust from paved and unpaved roads; diesel soot; combustion products; tire and brake abrasion; construction operations; and fires. Fuel combustion and certain industrial processes are primarily responsible for fine particle (i.e., PM2.5) levels. Coarse particles (PM10) can accumulate in the respiratory system and aggravate health problems such as asthma. PM2.5 can deposit itself deep in the lungs and may contain substances that are harmful to human health.

Toxic air contaminants (TACs) are a diverse group of air pollutants 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. TACs may be emitted from a variety of common sources, including motor vehicles, gasoline stations, dry cleaners, industrial operations, painting operations, and research and teaching facilities. TACs are different than the "criteria" pollutants previously discussed in that AAQS have not been established for them. TACs occurring at extremely low levels may still affect health, and it is typically difficult to identify levels of exposure that do not produce adverse health effects. TAC impacts on human health are described by having carcinogenic risk and being chronic (i.e., of long duration) or acute (i.e., severe but of short duration). Diesel particulate matter (diesel PM) is a TAC and is responsible for the majority of California's known cancer risk from outdoor air pollutants.

The effects from air pollution can be significant, both in the short-term during smog alerts, but also from long-term exposure to pollutants. While the majority of the populace can overcome short-term air quality health concerns, selected segments of the population are more vulnerable to its effects. Specifically, young children, the elderly, and persons with existing health problems are most susceptible to respirator complications. Sensitive receptors include single-family residences that are adjacent to the Project site and across Busch Drive.

Significance Criteria

Appendix G of the State CEQA Guidelines states that the significance criteria established by the applicable air quality management district may be relied upon to make significance determinations. The SCAQMD has established significance thresholds to assess the regional and localized impacts of Project-related air pollutant emissions; Table 4, SCAQMD Air Quality Significance Thresholds, presents the current significance thresholds.

TABLE 4 SCAQMD AIR QUALITY SIGNIFICANCE THRESHOLDS

Mass Daily Thresholds ^a					
Pollutant	Construction	Operation			
NOx	100 lbs/day	55 lbs/day			
VOC	75 lbs/day	55 lbs/day			
PM10	150 lbs/day	150 lbs/day			
PM2.5	55 lbs/day	55 lbs/day			
SOx	150 lbs/day	150 lbs/day			
СО	550 lbs/day	550 lbs/day			
Lead	3 lbs/day	3 lbs/day			
	TACs, Odor, and GHG Thresho	olds			
TACs (including carcinogens and non- carcinogens)	Maximum Incremental Cancer Risk ≥ Cancer Burden > 0.5 excess cancer c Chronic & Acute Hazard Index ≥ 1.0 (ases (in areas ≥ 1 in 1 million) project increment)			
Odor	Project creates an odor nuisance pursuant to SCAQMD Rule 402				
GHG	10,000 MT/yr CO₂e for industrial facilities				
	bient Air Quality Standards for Criteri				
NO ₂	The SCAQMD is in attainment; the Project is significant if it causes or contributes to an exceedance of the following attainment standards:				
1-hour average annual arithmetic mean	0.18 ppm (State) 0.03 ppm (State) and 0.0534 ppm (federal)				
PM10					
24-hour average annual average	10.4 μg/m³ (construction) ^c & 2.5 μg/m³ 1.0 μg/m³	³ (operation)			
PM2.5 24-hour average	10.4 μg/m³ (construction) ^c & 2.5 μg/m ²	³ (operation)			
SO ₂ 1-hour average 24-hour average	0.25 ppm (State) & 0.075 ppm (federa 0.04 ppm (State)	al – 99 th percentile)			
Sulfate 24-hour average	25 μg/m³ (State)				
со	SCAQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards:				
1-hour average 8-hour average	20.0 ppm (State) and 35 ppm (federal) 9.0 ppm (State/federal)				
Lead 30-day average Rolling 3-month average	1.5 µg/m³ (State) 0.15 µg/m³ (federal)				

NOx: nitrogen oxides, lbs/day: pounds per day, VOC: volatile organic compound, PM10: respirable particulate matter with a diameter of 10 microns or less, PM2.5: fine particulate matter with a diameter of 2.5 microns or less, SOx: sulfur oxides, CO: carbon monoxide, TACs: toxic air contaminants, GHG: greenhouse gases, MT/yr CO₂e: metric tons per year of carbon dioxide equivalents, NO₂: nitrogen dioxide, ppm: parts per million, µg/m³: micrograms per cubic meter; SCAQMD: South Coast Air Quality Management District

- ^a Source: SCAQMD CEQA Handbook (SCAQMD 1993)
- b Ambient air quality thresholds for criteria pollutants based on SCAQMD Rule 1303, Table A-2 unless otherwise stated
- Ambient air quality threshold is based on SCAQMD Rule 403

Source: South Coast AQMD 2019

3.3.2 PROJECT ENVIRONMENTAL REVIEW

The Proposed Project includes several components differing from the Approved Project, including installation of safety lights; installation of a tank-mounted blower with ducting connected to the tank headspace; relocation of two 5,000-gallon temporary storage tanks to the northwest corner of the Project site from another site several miles away; removal of standing remnants of three burned trees from the Project site; and replacement of chain link fencing and gates on the site perimeter.

Existing conditions on and next to the site differ from those of 2003 identified in the ND in that several trees onsite and next to the east site boundary burned in 2018; standing remnants of three burned trees are present in the southwest part of the site.

		New Significant Environmental Effect Caused by a Change in the Project or Circumstances	Substantial Increase in the Severity of a Previously Identified Significant Effect Caused by a Change in the Project or Circumstances	New or Substantially More Severe Significant Impacts Shown by New Information	Ability to Substantially Reduce a Significant Effect Shown by New Information but Declined by Proponent
3.3.2	Where available, the significance criteria pollution control district may be relied on				
a.	Conflict with or obstruct implementation of the applicable air quality plan?	No	No	No	No
b.	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?	No	No	No	No

No

No

No

No

Impact Discussion

people?

c. Expose sensitive receptors to

substantial pollutant concentrations?

d. Result in other emissions (such as those leading to odors) adversely

affecting a substantial number of

Would the project:

a) Conflict with or obstruct implementation of the applicable air quality plan?

No Subsequent Analysis Required. Since approval of the 2005 ND, the SCAQMD updated the Air Quality Management Plan (AQMP). The current AQMP for CEQA analysis purposes is the 2016 AQMP, which was approved in March 2017 and is a regional and multi-agency effort (involving SCAQMD, California Air Resources Board [CARB], Southern California Association of Governments [SCAG], and [USEPA]). The 2016 AQMP incorporates the latest scientific and technical information and planning assumptions, including SCAG's 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), updated emission inventory methods for various source categories, and latest growth forecasts (SCAG 2016).

No

No

No

No

The Project is not anticipated to involve a change in energy consumption between existing conditions and conditions with the Proposed Project. The Project would also not result in changes related to vehicle trips associated with maintenance activities. Because the Project would not result in changes in activities which generate air pollutant emissions, operations phase emissions would not change from existing conditions.

City and County General Plans were used to develop the growth and pollutant emissions forecasts in the RTP/SCS and the 2016 AQMP. The Project would not result in any population growth or substantial changes to emissions. Therefore, the Project is consistent with the 2016 AQMP. No conflict with the current AQMP would result, which is also consistent with the air quality impacts that were identified, analyzed and disclosed in the IS/MND. No new significant impacts or increases in the severity of any previously identified significant impacts related to the AQMP would occur with implementation of the Proposed Project.

The Proposed Project includes the following changes compared to the Approved Project: installation of a tank-mounted blower with ducting connected to the tank headspace; relocation of two 5,000-gallon temporary storage tanks to the northwest corner of the Project site from another site several miles away; removal of standing remnants of three burned trees from the Project site; and replacement of chain link fencing and gates on the site perimeter. These changes to the project would not involve substantial energy use (the blower would be operated only at dusk); substantial construction effort; or generate substantial number of vehicle trips. Thus, none of these changes would generate substantial GHG emissions.

b) 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?

No Subsequent Analysis Required. The Project would result in construction related air pollutant emissions. Operations phase emissions are not anticipated to change from those occurring under the existing conditions due to the lack of changes associated with energy consumption and vehicle trips under the Proposed Project.

California Emissions Estimator Model (CalEEMod®), Version 2016.3.2. was used to calculate the emissions associated with construction activities. CalEEMod is a computer program developed for the California Air Pollution Officers Association (CAPCOA) in collaboration with the California Air Districts and is currently used to estimate anticipated emissions associated with land development projects in California. CalEEMod calculates emission rates for criteria pollutants utilizing the EMission FACtor model (EMFAC 2014) for on-road vehicles, OFFROAD 2011 for offroad vehicles, and USEPA formulas for non-vehicular emissions (CAPCOA 2017). The estimated construction-related air quality emissions using the current version of CalEEMod have been calculated for the Project and the CalEEMod model output is provided in Appendix A.

Construction-Related Air Quality Emissions

As shown in Tables 5 and 6, regional air quality impacts would be less than the respective thresholds. Implementation of RR AQ-1 would ensure that fugitive dust emissions would not exceed established thresholds (note that per compliance with SCAQMD Rule 403, this reduction is already considered in the analysis and Table 5). Compliance with RR AQ-2 through AQ-5 would ensure that exhaust emissions from construction equipment operating on site would not exceed established thresholds.

TABLE 5 ESTIMATED MAXIMUM DAILY CONSTRUCTION EMISSIONS PROPOSED PROJECT

		Emissions (lbs/day)				
Year	VOC	NOx	СО	SOx	PM10	PM2.5
2021 ^{a.}	1	12	17	0	1	1
SCAQMD Thresholds	75	100	550	150	150	55
Exceeds SCAQMD Thresholds?	No	No	No	No	No	No

a. This analysis was completed based on construction occurring in 2021. Construction is expected to occur in 2026 and, due to the progressive technologies found in construction equipment, the anticipated emissions are likely to be less through use of cleaner equipment. Therefore, these estimates continue to apply and represent a conservative analysis.

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

Source: CalEEMod 2018; see Appendix A for CalEEMod model outputs.

Operational Air Quality Emissions

After construction activities are completed, there would be no routine operational trips, energy consumption, or other sources of criteria pollutant emissions beyond what is currently occurring. As such, there would be no project related emissions during the operational phase. Consequently, there would be no new impacts and no mitigation is required.

Cumulative Air Quality Emissions

The SCAQMD considers impacts that are directly less than significant on a project-level to be also cumulatively less than significant. That is, the SCAQMD uses the same significance thresholds for project specific and cumulative impacts (SCAQMD 2003).² Construction emissions would be below the SCAQMD regional and localized significance thresholds. Therefore, consistent with SCAQMD guidance, short-term construction emissions of nonattainment pollutants during construction of the Project would not be cumulatively considerable. There would be no new impacts from construction of the Project and no mitigation is required.

As previously discussed, no long-term emissions associated with the operation of the Project beyond those occurring under existing conditions and therefore not cumulatively considerable; the long-term cumulative impact would be less than significant and would not represent a new impact and no mitigation is required.

c) Expose sensitive receptors to substantial pollutant concentrations?

No Subsequent Analysis Required. In addition to the mass daily emissions thresholds established by the SCAQMD, short-term local impacts to nearby sensitive receptors from on-site emissions of NO₂, CO, PM10, and PM2.5 are examined based on SCAQMD's localized significance threshold (LST) methodology. To assess local air quality impacts for development projects without complex dispersion modeling, the SCAQMD developed screening (lookup) tables to assist lead agencies in evaluating impacts.

The only case where the significance thresholds for project specific and cumulative impacts differ is the Hazard Index (HI) significance threshold for toxic air contaminant (TAC) emissions.

The LST method is recommended to be limited to projects that are five acres or less. For the purposes of an LST analysis, the SCAQMD considers receptors where it is possible that an individual could remain for 1 hour for NO₂ and CO exposure and 24 hours for PM10 and PM2.5 exposure. The emissions limits in the lookup tables are based on the SCAQMD's Ambient Air Quality Standards (SCAQMD 2016). The closest receptors to the Project site are adjacent residential uses.

Table 6, Construction-Phase Localized Significance Threshold Emissions, shows the maximum daily on-site emissions for construction activities compared with the SCAQMD LST thresholds. The thresholds shown are from the lookup tables for a site that is 1 acre, which is based on the assumption that the most intensive phase of construction that involves soil disturbance would not exceed 1 acre. The Project's maximum daily on-site emissions would occur during the demolition phase (for NOx and CO), and during the grading/excavation phase (for PM10 and PM2.5). As shown in Table 6, localized emissions for all criteria pollutants would be less than their respective thresholds. Therefore, localized air quality impacts at receptors proximate to construction activities would be exposed to less than significant air quality impacts. No new impacts would occur.

TABLE 6
LOCALIZED SIGNIFICANCE THRESHOLD CONSTRUCTION
EMISSIONS PROPOSED PROJECT

		Emissions (lbs/day)			
Emissions and Thresholds	NOx	СО	PM10	PM2.5	
Project maximum daily on-site emissions	11	16	1	1	
Localized Significance Threshold	103	562	4	3	
Exceed threshold?	No	No	No	No	

lbs/day: pounds per day; NOx: nitrogen oxides; CO: carbon monoxide; PM10: respirable particulate matter 10 microns or less in diameter; PM2.5: fine particulate matter 2.5 microns or less in diameter.

Note: Data is for SCAQMD Source Receptor Area 2, Northwest Coastal LA County.

Source: SCAQMD 2009 (thresholds); see Appendix A for CalEEMod model outputs.

As discussed previously, the operations phase of the Project would not involve new activities that generate air pollutant emissions.

A blower would be added as part of the project to prevent accumulation of chlorine vapors that may lead to corrosion in the interior head space of the tank. Chlorine would be added to control the growth of bacteria within the water tank. Chlorine levels would be limited to 2 parts per million (2 ppm). This concentration is within the range of chlorine concentrations the Centers for Disease Control recommend for swimming pools (at least 1 ppm) and hot tubs (at least 3 ppm)³. Because chlorine concentrations within the water are comparable to a swimming pool, a SCAQMD permit is not required for the blower due to the low level of chlorine vapor associated with the water tank. No potential health risk is associated with the operation of the blower to minimize the accumulation of chlorine vapors. Thus, the operations phase would result in less than significant impacts related to emissions that would expose sensitive receptors to substantial pollutant concentrations. No new impacts would occur.

Centers for Disease Control and Prevention (CDC). 2016 (May 4, revision date). Healthy Swimming: Disinfection & Testing. https://www.cdc.gov/healthywater/swimming/residential/disinfection-testing.html.

d) Result in other emissions (such as those leading to odors) adversely odors affecting a substantial number of people.

No Subsequent Analysis Required. The Project is regulated from nuisance odors or other objectionable emissions by SCAQMD Rule 402. Rule 402 prohibits the discharge from any source of air contaminants or other material which would cause injury, detriment, nuisance, or annoyance to people or the public. The proposed structures do not involve processes or emissions that would result in the generation of emissions (such as those leading to odors) which would adversely affect a substantial number of people. Operation of the blower for reducing chlorine vapor concentrations in the tank would not cause odors affecting a substantial number of people. The blower is intended to reduce concentration of chlorine vapor that could otherwise cause corrosion in the interior head space of the tank and is not required to prevent exposure of nearby residents to nuisance odors. Therefore, the Proposed Project would not result in new or substantially more severe effects related to this issue. Thus, the impact of creating objectionable odor is considered less than significant as identified in the 2005 ND.

Conclusion

Overall, the Proposed Project would be consistent with the project analyzed in the 2005 ND. As detailed above, the minor changes between the previously Approved Project and the Proposed Project would not result in any new or increased impacts. The ND concluded that impacts of Approved Project implementation to air quality would be less than significant. Proposed Project development would not create a new significant impact or substantial increase in the severity of previously identified effects. In regard to Section 15162 of the State CEQA Guidelines, the Proposed Project (1) would not propose substantial changes; (2) would not have circumstantial changes under which the project is undertaken; and (3) would bring about no new information of substantial importance that would (a) create new significant impacts, (b) increase the severity of previously examined effects, (c) determine that mitigation measures or alternatives previously found not to be feasible would, in fact, be feasible, or (d) introduce mitigation measures that are considerably different from those analyzed in the previous documents. For these reasons, there are no major revisions required to the air quality analysis provided in the ND.

Regulatory Requirement

The following regulatory requirements was set forth in the ND; was applicable to the Approved Project; and would be applicable to the proposed Project. Because this measure is intended to ensure compliance with an existing law or regulation, it does not constitute preexisting or new mitigation.

RR AQ-1

Project contractors shall comply with South Coast Air Quality Management District (SCAQMD) Rule 403, Fugitive Dust, which requires the implementation of best available control measures (BACM) for any activity or man-made condition capable of generating fugitive dust, including, but not limited to, earth-moving activities, construction/demolition activities, disturbed surface area, or heavy- and light-duty vehicular movement. The BACMs include stabilizing soil; watering surface soils and crushed materials; covering hauls or providing freeboard; preventing track-out; and limiting vehicle speeds and wind barriers, among others. Rule 403 requires dust control as necessary to prevent visible emissions beyond the Project site property lines. Compliance with this rule would result in a reduction in short term particulate pollutant emissions. This measure shall be included by the County as notes in the Contractor Specifications.

- RR AQ-2 All off-road diesel-powered construction equipment greater than 50 horsepower (hp) shall meet United States Environmental Protection Agency (USEPA) Tier 3 or better off-road emissions standards. A copy of each unit's certified Tier specification shall be provided to the County at the time of mobilization of each applicable unit of equipment.
- **RR AQ-3** Electricity shall come from power poles rather than diesel- or gasoline-fueled generators, compressors, or similar equipment unless it is demonstrated to the County to not be feasible.
- **RR AQ-4** Construction contractors shall implement the following measures:
 - a. All construction equipment shall be tuned and maintained in accordance with the manufacturer's specifications;
 - b. Diesel truck idling time shall be five minutes or less, both on- and off-site; and
 - c. Work crews shall shut off diesel equipment when not in use.
- **RR AQ-5** Construction contractors shall support and encourage ridesharing and incentives for the construction crews.

3.4 BIOLOGICAL RESOURCES

3.4.1 SUMMARY OF PREVIOUS ENVIRONMENTAL ANALYSIS

The 2005 ND concluded that development of the Approved Project would not impact biological resources. As evaluated in in the ND, the Project site in 2003 was paved and developed with a concrete water tank. The ND determined that project development would not impact sensitive species, sensitive habitat, or riparian habitat, and that there were no wetlands onsite. The site was found not to be in a wildlife movement corridor and was found to be located outside of areas protected by habitat conservation plans or natural community conservation plans.

3.4.2 PROJECT ENVIRONMENTAL REVIEW

The Proposed Project includes several components differing from the Approved Project, including installation of safety lights; installation of a tank-mounted blower with ducting connected to the tank headspace; relocation of two 5,000-gallon temporary storage tanks to the northwest corner of the Project site from another site several miles away; removal of standing remnants of three burned trees from the Project site; and replacement of chain link fencing and gates on the site perimeter.

Existing conditions on and next to the site differ from those in 2003 identified in the ND in that several trees onsite and next to the east site boundary burned in 2018; standing remnants of three burned trees are present in the southwest part of the site.

		New Significant Environmental Effect Caused by a Change in the Project or Circumstances	Substantial Increase in the Severity of a Previously Identified Significant Effect Caused by a Change in the Project or Circumstances	New or Substantially More Severe Significant Impacts Shown by New Information	Ability to Substantially Reduce a Significant Effect Shown by New Information but Declined by Proponent
3.4.2	Would the project:				
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 CDFG [CDFW] or USFWS?	No	No	No	No
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 CDFG [CDFW] or USFWS?	No	No	No	No
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?	No	No	No	No
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?	No	No	No	No
e.	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	No	No	No	No
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?	No	No	No	No

Impact Discussion

Would the project:

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 Game or U.S. Fish and Wildlife Service?

No Subsequent Analysis Required. Consistent with the findings of the 2005 ND, the Project site is developed as an asphalt-paved surface and a concrete water tank. Vegetation onsite is limited to ruderal (weedy) plants growing along the edges of the asphalt-paved pad and two small dead or dying tamarisk trees (Tamarix ramosissima) in the south site boundary, as observed on a site visit by Psomas staff on August 13, 2019. The two dead tamarisks have been removed since the initial observations. No suitable habitat for sensitive animal or plant species is present onsite. A yew tree (Taxus sp.) is growing offsite just outside the southeast corner of the site; and two mature pine trees (Pinus sp.) are offsite just outside the northern site boundary. Project development would not affect the offsite trees. No sensitive or special status species as identified by the California Department of Fish and Wildlife (CDFW) or the U.S. Fish and Wildlife Service are known to exist at the Project site. The site is fenced; fencing in addition to the lack of suitable habitat precludes habitation onsite by sensitive species. As with the findings of the 2005 ND, Project development would have no impact on sensitive or special status species or their respective habitat because no sensitive or special status species or habitat were identified within the Project impact area. None of the changes to the project compared to the Approved Project would impact special status species. No change in impacts to special status species would result from changes to the existing setting since 2003. No new or increased impacts would occur; no mitigation is required; and no subsequent analysis is required.

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

No Subsequent Analysis Required. Sensitive natural communities are natural communities that are considered rare in the region by regulatory agencies; that are known to provide habitat for sensitive animal or plant species; or are known to be important wildlife corridors. There are no sensitive natural communities onsite. No riparian habitat is present onsite. No changes in impacts to riparian habitat or sensitive natural communities would result from changes to the Project or the existing setting since adoption of the ND. Construction activities would be performed within the existing tank site right-of-way. Therefore, there would be no adverse impact on riparian habitat or other sensitive natural community. No new or increased impacts would occur; no mitigation is required; and no subsequent analysis is required.

c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

No Subsequent Analysis Required. An area is considered to be a wetland if, under normal circumstances (1) the area has continuous or recurrent saturation of the upper soils caused by groundwater, or shallow surface water, or both: (2) the duration of such saturation is sufficient to cause a lack of free oxygen in the upper soils; and (3) the area's vegetation is dominated by plants growing in water or saturated soils; or lacks vegetation. The site consists of asphalt pavement and a concrete water tank, and therefore does not meet the criteria of a wetland. The nearest offsite wetland to the Project site shown on the National Wetlands Mapper maintained by the US

Fish and Wildlife Service is a creekbed approximately 235 feet to the west (USFWS 2020); Proposed Project construction and operation would not impact wetlands in that creekbed. The Proposed Project does not involve any federally protected wetland habitat. Therefore, the Proposed Project would not impact wetland habitat. No changes in impacts to wetlands would result from changes to the Project or the existing setting since adoption of the ND. No new or increased impacts would occur; no mitigation is required; and no subsequent analysis is required.

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?

No Subsequent Analysis Required. The site is fenced with a locked gate along the Busch Drive frontage and is thus not available for overland wildlife movement. As identified in 2003 in the ND, the site does not provide important corridors for wildlife movement or nursery opportunities. No new impact to wildlife movement corridors would occur. Two small dead or dying trees in the southern edge of the site would be removed for utilities installation during project construction. The trees are unlikely to be used by nesting birds due to their small size and sparse, dead foliage. Nevertheless, tree removal has the potential to disturb nesting birds protected under federal and State laws. Demolition and construction could also disturb nesting birds in trees adjacent to the Project site. Potential impacts to nesting birds are reduced compared to those identified in the ND due to the recent burning of trees onsite. The changes to the Project compared to the Approved Project would not affect trees and thus would not cause new or increased impacts to nesting birds. The Proposed Project would comply with existing regulations pursuant to state and federal laws protecting nesting birds (Code of Federal Regulations Title 50 Parts 10, 20, and 21; and California Fish and Game Code Sections 3503 and 3503.5) The Proposed Project would be required to comply with RR BIO-1 requiring vegetation clearance outside of the peak nesting season (February 1 to August 31); or nesting bird survey(s) by a qualified biologist, and avoidance of active nests. The specified regulatory requirement reiterates the aforementioned existing regulations and is not mitigation; and no mitigation is needed to ensure implementation of this requirement. This regulatory requirement applied to the Approved project as well as to the Proposed project. No subsequent analysis is required.

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

No Subsequent Analysis Required. The City of Malibu does not have ordinances protecting biological resources on the Project site, which is owned by LACWWD 29. No new or increased impacts would occur; no mitigation is required; and no subsequent analysis is required.

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?

No Subsequent Analysis Required. The Project site is not in a habitat conservation plan or natural community conservation plan (USFWS 2018). Therefore, Proposed Project development would not conflict with a habitat conservation plan or natural community conservation plan. No new or increased impacts would occur; no mitigation is required; and no subsequent analysis is required.

Conclusion

Overall, the Proposed Project would be consistent with the project analyzed in the 2005 ND. The ND concluded that Approved Project implementation would not impact biological resources. As detailed above, the Proposed Project would impact the same area as with the Approved Project and the presence of biological resources is consistent with the previous analysis. Proposed Project development would not create a new significant impact or substantial increase in the severity of previously identified effects. In regard to Section 15162 of the State CEQA Guidelines, the Proposed Project (1) would not propose substantial changes; (2) would not have circumstantial changes under which the project is undertaken; and (3) would bring about no new information of substantial importance that would (a) create new significant impacts, (b) increase the severity of previously examined effects, (c) determine that mitigation measures or alternatives previously found not to be feasible would, in fact, be feasible, or (d) introduce mitigation measures that are considerably different from those analyzed in the previous documents. For these reasons, there are no major revisions required to the biological resources analysis provided in the ND.

Regulatory Requirement

The following regulatory requirement was set forth in the ND; was applicable to the Approved Project; and would be applicable to the proposed Project. Because this measure is intended to ensure compliance with an existing law or regulation, it does not constitute preexisting or new mitigation. No significant impact to nesting birds was identified either in the ND or in the present Addendum, and no mitigation measure is required to reduce impacts to nesting birds.

RR BIO-1

To ensure compliance with the Migratory Bird Treaty Act, the County shall schedule all vegetation removal and grading activities during the non-breeding season (i.e., September 1 to January 31) to avoid impacts on active nests for common and special status birds. If project timing requires that vegetation clearing or grading occur between February 1 and August 31, the County shall retain a qualified Biologist (one with experience conducting nesting bird surveys) to conduct a pre-construction survey for nesting birds and raptors. A pre-construction survey shall be conducted by a qualified Biologist within 72 hours prior to vegetation clearing or the initiation of work during the breeding season. The pre-construction nesting bird survey area shall include the Project site (i.e., disturbance footprint) plus a 250-foot buffer to search for nesting birds and a 500-foot buffer to search for nesting raptors. If no active nests are found, no further mitigation would be required.

If an active nest is observed during the survey, the Biologist shall delineate an appropriate buffer to protect the nest. A protective buffer zone (25 feet to 500 feet for nesting birds, 300 feet to 500 feet for nesting raptors) shall be used to protect nesting birds and nesting raptors. The size of the buffer shall be established at the discretion of the Biologist based on site topography, existing disturbance, status of the species, sensitivity of the individuals (established by observing the individuals at the nest), and the type of construction activity. No construction activities shall be allowed in the designated buffer until the Biologist determines that nesting activity has ended. Encroachment into the buffer area around a known nest will only be allowed if the Biologist determines that the proposed activity would not disturb the nest occupants. Construction may proceed within the buffer once the Biologist determines that nesting activity has ceased (i.e., fledglings have left the nest or the nest has failed). The designated buffer will be clearly marked in the field and will be mapped as Environmentally Sensitive Areas (ESAs) on construction plans.

3.5 CULTURAL RESOURCES

3.5.1 SUMMARY OF PREVIOUS ENVIRONMENTAL ANALYSIS

The 2005 ND concluded that no historical, archaeological, or paleontological resources were known onsite.

Impacts of the Approved Project to cultural resources were identified as less than significant after implementation of the preceding mitigation.

Previously Approved Measure

As all impacts were determined to be less than significant, no mitigation measures were required for the 2005 design; however, the following mitigation measure was included in the analysis in connection with the 2005 ND; was applicable to the Approved Project; and would also be applicable to the proposed Project. The ND identified no impacts for cultural resource impacts, did not identify significant impacts, and did not state that mitigation measures were required to reduce impacts to less than significant.

MM CULT-1 If any cultural resources, including human remains, are discovered during construction, the contractor shall cease excavation and contact a specialist to examine the Project sites as required by project specifications.

3.5.2 PROJECT ENVIRONMENTAL REVIEW

The information in this section is based on the Resource List prepared by the South Central Coastal Information Center (SCCIC) at California State University Fullerton based on the Cultural Records Search for the Proposed Project completed by the SCCIC on July 31, 2019. A copy of the Resource List is included as Appendix B to this Addendum. A confidential map of cultural resources within one mile of the Proposed Project site is available for review by qualified personnel at the Los Angeles County Public Works office at 900 South Fremont Avenue in the City of Alhambra.

The Proposed Project includes several components differing from the Approved Project, including installation of safety lights; installation of a tank-mounted blower with ducting connected to the tank headspace; relocation of two 5,000-gallon temporary storage tanks to the northwest corner of the Project site from another site several miles away; removal of standing remnants of three burned trees from the Project site; and replacement of chain link fencing and gates on the site perimeter.

Existing conditions on and next to the site differ from those analyzed in the 2005 ND in that several trees onsite and next to the east site boundary burned in 2018; standing remnants of three burned trees are present in the southwest part of the site.

		New Significant Environmental Effect Caused by a Change in the Project or Circumstances	Substantial Increase in the Severity of a Previously Identified Significant Effect Caused by a Change in the Project or Circumstances	New or Substantially More Severe Significant Impacts Shown by New Information	Ability to Substantially Reduce a Significant Effect Shown by New Information but Declined by Proponent
3.5.2	Would the project:				
a.	Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?	No	No	No	No
b.	Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	No	No	No	No
C.	Disturb any human remains, including those interred outside of dedicated cemeteries?	No	No	No	No

Impact Discussion

Would the project:

a) Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?

No Subsequent Analysis Required. The SCCIC record search identified one historic resource, cement towers for a small dam, within 0.5 mile of the Project site—However, the SCCIC record search did not identify any historic resources were identified onsite. The site contains an existing tank built in approximately 1947 that does not meet the criteria for an historic resource, as assessed by the 2005 ND. There were several single-family houses of various architectural styles surrounding the Project site, including east of the site opposite Busch Drive, when the ND was circulated in 2003. All but one of those houses burned in the Woolsey Fire of November 2018; the only one of those houses remaining is 75 feet north of the Project site at 5703 Busch Drive (APN 4469-028-010). That house, a multilevel single-family Ranch Rambler style house, has not been evaluated for historical significance, and its significance is unknown. However, several archaeological and historical studies have been conducted in the surrounding area, such as LA-3086, LA-4086, LA-5909, and LA-12777; these studies have not identified any historic districts or significant historic resources surrounding the Project site that would suggest the built structure located at 5703 Busch Drive would be historically significant.

The replacement tank would be similar in appearance and slightly larger than the existing tank (replacement tank 62 feet diameter and 26 feet above grade compared to existing tank 52 feet diameter and 18 feet above grade). Demolition and earth moving activities would be confined to the Project site. Thus, development of the replacement tank would not directly impact the built structure located at 5703 Busch Drive. Construction activities may utilize the access road in between the Project site and 5703 Busch Drive, but these activities are not expected to substantially degrade any potential historical significance of the residence at 5703 Busch Drive. Therefore, consistent with the conclusions of the 2005 ND, the Proposed Project would not cause an adverse change in the significance of a historical resource pursuant to Section 15064. The Project does not anticipate any new direct or indirect impacts associated with the Proposed Project.

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

No Subsequent Analysis Required. The 2019 archaeological records search identified 28 cultural resources studies conducted within a one-mile radius of the Project site. None of these studies included any portion of the Project site. Five prehistoric resources are located within 0.5 miles of the Project site, but these resources are located at least 0.25 miles away from the Project site. Twenty-one prehistoric sites were identified within one mile of the Project site consisting of habitation sites, lithic production sites, and resource quarries. Two resources contained human burials and burial goods. These results suggest that although the Project site does not contain any known prehistoric resources, there may be a chance of encountering unknown, buried resources.

Earth moving activities associated with construction of the Proposed Project could result in damage to or destruction of subsurface archaeological resources, which are considered to hold scientific value and are also considered under criterion D of the National Register of Historic Places and criterion 4 of the California Register of Historic Resources as likely to yield information important in history or prehistory. This potential for damage would be considered a potentially significant impact.

No impact to archaeological resources was identified in the ND. However, the ND stated in the environmental analysis for cultural resources "if any cultural resources, including human remains, are discovered during construction, the contractor shall cease excavation and contact a specialist to examine the project sites as required by project specifications." That requirement would also apply to the Proposed Project.

If approved, the Proposed Project would not involve substantial tank disturbance on land that was previously disturbed on the original project and thus would not substantially increase impacts to archaeological resources that may be buried in site soils. Since the 2005 ND, the physical setting has undergone changes, such as the incineration of vegetation and gross structural damages to the surrounding built environment, which was incurred during the 2018 Woolsey Fire. However, the recent changes to the physical setting has not changed the assessed archaeological sensitivity, as discussed in the 2005 ND. The Project does not anticipate any direct or indirect impacts to any known archaeological resources No new or intensified impact would occur if the Proposed Project is approved. As such, the Project does not require any further environmental analysis or mitigating efforts.

c) Disturb any human remains, including those interred outside of dedicated cemeteries?

No Subsequent Analysis Required. There are no known human remains or burials located on the Project site. The Project site is not part of a formal cemetery and is not known to have been used for burial of historic or prehistoric human remains. Thus, the Project is not expected to impact known human remains or cemeteries. However, the potential still exists for such resources to be present and earth moving construction activities could disturb these resources. Human burials, in addition to being potential archaeological resources, have specific provisions for treatment in Section 5097 of the California Public Resources Code. Disturbing human remains could violate the health code, as well as destroy the resource, which would constitute a potentially significant archaeological impact.

If human remains are encountered during Project construction, those remains would require proper treatment, in accordance with applicable State laws. Sections 7050.5 through 7055 of the *California Health and Safety Code* describe the general provisions for human remains. Specifically, Section 7050.5 of the *California Health and Safety Code* describes the protocols to

be followed if human remains are accidentally discovered during excavation of a site. In addition, the requirements and procedures set forth in Section 5097.98 of the *California Public Resources Code* would be implemented. If human remains are found during excavation, construction activities must stop in the vicinity of the find and in any area that is reasonably suspected to overlie adjacent remains until the County Coroner has been notified; the remains have been investigated; and appropriate recommendations have been made for the treatment and disposition of the remains.

The potential impacts to human remains would be considered less than significant by complying with State regulations, which detail the appropriate actions necessary in the event human remains are encountered. As mentioned above, human remains may also be considered a significant archaeological and tribal cultural resource. Compliance with existing regulatory requirements requiring notification of the County coroner within 24 hours after accidental discovery of human remains (RR CULT-1) would ensure that a significant impact would not occur. These requirements applied to the Approved project as well as to the Proposed project. The changes to the Project compared to the Approved Project would not involve substantial additional ground disturbance and thus would not substantially increase potential impacts to human remains. No new or substantially greater impacts would occur, and no mitigation is required; thus, no subsequent CEQA analysis is required.

Conclusion

Overall, the Proposed Project would be consistent with the project analyzed in the 2005 ND. The ND concluded that Approved Project implementation would not impact cultural resources. As detailed above, the Proposed Project would be located within the same area as the previously Approved Project and the likelihood of encountering cultural resources has not changed since the 2005 ND was approved. Proposed Project development would not create a new significant impact or substantial increase in the severity of previously identified effects. In regard to Section 15162 of the State CEQA Guidelines, the Proposed Project (1) would not propose substantial changes; (2) would not have circumstantial changes under which the project is undertaken; and (3) would bring about no new information of substantial importance that would (a) create new significant impacts, (b) increase the severity of previously examined effects, (c) determine that mitigation measures or alternatives previously found not to be feasible would, in fact, be feasible, or (d) introduce mitigation measures that are considerably different from those analyzed in the previous documents. For these reasons, there are no major revisions required to the cultural resources analysis provided in the ND.

Regulatory Requirement

The following regulatory requirement was set forth in the ND; was applicable to the Approved Project as it referenced State laws were in place at that time; and would be applicable to the proposed Project. Because this measure is intended to ensure compliance with an existing law or regulation, it does not constitute new mitigation.

RR CULT-1 In accordance with Section 7050.5 of the California Health and Safety Code, if human remains are found during ground-disturbing activities, no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains shall occur until the County Coroner has determined, within two working days of notification of the discovery, the appropriate treatment and disposition of the human remains. The County Coroner shall be notified within 24 hours of the discovery. If the County Coroner determines that the remains are or are believed to be Native American, s/he shall notify the Native American Heritage Commission (NAHC) in Sacramento within 24 hours of the discovery. In

accordance with Section 5097.98 of the *California Public Resources Code*, the NAHC must immediately notify those persons it believes to be the most likely descended from the deceased Native American. The descendants shall complete their inspection within 48 hours of being granted access to the site by the property owner. The property owner would then determine, in consultation with a designated Native American representative, the final disposition of the human remains (14 *California Code of Regulations* §15064.5[e]). The District shall comply with these requirements.

3.6 ENERGY

3.6.1 SUMMARY OF PREVIOUS ENVIRONMENTAL ANALYSIS

When the 2005 ND was adopted, energy was not part of the required CEQA analyses. Effective December 28, 2018, the State adopted amendments to Appendix G of the State CEQA Guidelines requiring the analysis and mitigation of the effects of energy in CEQA documents. The State CEQA Guidelines regarding energy emissions do not specifically address situations involving subsequent implementation actions for a project with a previously certified EIR or adopted ND. However, as described below, courts have ruled that there is no requirement to address energy in an Addendum to an EIR that was completed prior to the adopted CEQA amendments. Although there is no requirement to address energy in this Addendum, an analysis is provided.

3.6.2 PROJECT ENVIRONMENTAL REVIEW

Southern California Edison (SCE) and the Southern California Gas Company (SCGC) are utility companies that currently provide and would continue to provide electrical and natural gas services, respectively, to the Project site. Compliance with energy efficiency and conservation policies and regulations is discussed in this section.

The State of California has also adopted efficiency design standards within the Title 24 Building Standards and CALGreen requirements. Title 24 of the California Code of Regulations (CCR, specifically, Part 6) is California's Energy Efficiency Standards for Residential and Non-residential Buildings. Title 24 was established by the California Energy Commission (CEC) in 1978 in response to a legislative mandate to create uniform building codes to reduce California's energy consumption and to provide energy efficiency standards for residential and non-residential buildings. The 2016 California Green Building Standards Code (24 CCR, Part 11), also known as the CALGreen Code, contains mandatory requirements for new residential and nonresidential buildings throughout California. The development of the CALGreen Code is intended to (1) cause a reduction in GHG emissions from buildings; (2) promote environmentally responsible, cost-effective, healthier places to live and work; (3) reduce energy and water consumption; and (4) respond to the directives by the Governor. In short, the Code is established to reduce construction waste; make buildings more efficient in the use of materials and energy; and reduce environmental impact during and after construction. The regulation of energy efficiency for residential and non-residential structures is established by the CEC and its California Energy Code.

The Proposed Project includes several components differing from the Approved Project, including installation of safety lights; installation of a tank-mounted blower with ducting connected to the tank headspace; relocation of two 5,000-gallon temporary storage tanks to the northwest corner of the Project site from another site several miles away; removal of standing remnants of three burned trees from the Project site; and replacement of chain link fencing and gates on the site perimeter.

Existing conditions on and next to the site differ from those of 2003 identified in the ND in that several trees onsite and next to the east site boundary burned in 2018; standing remnants of three burned trees are present in the southwest part of the site.

		New Significant Environmental Effect Caused by a Change in the Project or Circumstances	Substantial Increase in the Severity of a Previously Identified Significant Effect Caused by a Change in the Project or Circumstances	New or Substantially More Severe Significant Impacts Shown by New Information	Ability to Substantially Reduce a Significant Effect Shown by New Information but Declined by Proponent
3.6.2	Would the project:				
a.	Result in potentially significant impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation?	No	No	No	No
b.	Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	No	No	No	No

Impact Discussion

Would the project:

- a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation? or
- b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

No Subsequent Analysis Required. The Project would consume energy during the construction and operations phases of the Project. Energy consumption of the different fuels from each of these phases are discussed below. The Proposed Project consists of a replacement tank 62 feet in diameter compared to a 59-foot-diameter tank in the Approved Project.

None of the modifications to the Project would use substantial amounts of energy (the blower would operate occasionally such as dusk), or would involve wasteful, inefficient, or unnecessary energy use. The change to the existing setting since 2003 would not affect Project energy use.

Construction

Project construction would require the use of construction equipment for demolition, excavation, and building activities. Fuel consumed during construction would be temporary in nature and would not represent a significant demand on energy resources. The Project would also implement best management practices such as requiring equipment to be properly maintained and minimize idling and where feasible, use electric or clean alternative fuel equipment. Furthermore, there are no unusual Project characteristics that would necessitate the use of construction equipment that would be less energy-efficient than at comparable construction sites in other parts of the State. Energy used in the construction of the Project would enable the development of buildings that meet the latest energy efficiency standards as detailed in California's Title 24 building standards, similar to the previously approved project's requirements to comply with the standards applicable

at that time. Therefore, the proposed construction activities would not result in inefficient, wasteful, or unnecessary fuel consumption. No new or increased impacts would occur; no mitigation is required; and no subsequent analysis is needed.

Operations

The proposed Project would consume energy from transportation fuels and electricity. However, the Project would not increase the amount of energy used over existing uses. As such, the Project is not considered a wasteful, inefficient or unnecessary consumption of energy resources and would result in less than significant energy impacts relative to the consumption of energy for Project operation. There would be no impact, no mitigation is required, and no subsequent analysis is needed.

Conclusion

Overall, the Proposed Project would be consistent with the project analyzed in the 2005 ND. As detailed above, although energy impacts were not specifically addressed in the 2005 ND, the anticipated demand for energy as well as the availability of energy sources (i.e., electricity and natural gas) would be the same as would have been for the Approved Project. Proposed Project development would not create a new significant impact or substantial increase in the severity of previously identified effects. In regard to Section 15162 of the State CEQA Guidelines, the Proposed Project (1) would not propose substantial changes; (2) would not have circumstantial changes under which the project is undertaken; and (3) would bring about no new information of substantial importance that would (a) create new significant impacts, (b) increase the severity of previously examined effects, (c) determine that mitigation measures or alternatives previously found not to be feasible would, in fact, be feasible, or (d) introduce mitigation measures that are considerably different from those analyzed in the previous documents. For these reasons, there are no major revisions required to the energy analysis provided in the ND.

3.7 **GEOLOGY AND SOILS**

The information in this section is based on the Geotechnical Investigation Report for Lower Busch Tank by Ninyo & Moore dated April 25, 2012; a complete copy of this Report is included as Appendix C to this Addendum.

3.7.1 SUMMARY OF PREVIOUS ENVIRONMENTAL ANALYSIS

The 2005 ND concluded that Approved Project development would not cause substantial hazards arising from surface rupture of a known active fault. The ND stated that the Malibu Coast Fault, the closest known fault to the Project site, is expected to generate earthquakes up to Magnitude 6.7. The steel tank evaluated in the 2005 ND would be supported on a foundation capable of sustaining such an earthquake. Thus, the 2005 ND found that development of the previously approved project would not cause significant hazards due to strong ground shaking. The ND identified liquefaction potential onsite and specified that the tank would be supported on a cast-in-place concrete pile foundation recommended to minimize liquefaction hazards. The ND determined that the Project site is on rather flat terrain not subject to landslide hazards.

The 2005 ND concluded that replacing the existing water tank would not cause soil erosion impacts.

The 2005 ND determined that a clay layer under the site could be expansive; but that the weight of the tank and foundation would resist structural damage from potentially expansive soil.

This Addendum addresses impacts to paleontological resources in the Geology and Soils Section pursuant to the CEQA Guidelines Update finalized in December 2018. The ND, in its Cultural Resources Section, determined that Approved Project development would not have impacted paleontological resources.

Previously Approved Measure

As all impacts were determined to be less than significant, no mitigation measures were required for the 2005 design; however, the following mitigation measure was included in the analysis in connection with the 2005 ND; was applicable to the Approved Project; and would also be applicable to the proposed Project. The ND identified less than significant impacts for geology and soil impacts, did not identify significant impacts, and did not state that mitigation measures were required to reduce impacts to less than significant. The mitigation measure is a project feature of the Approved Project and was not required to reduce a significant impact. The District would implement this measure (proper removal and disposal of excess soils and excavated materials) as part of its construction best management practices (BMPs) for minimizing stormwater pollution. LACPW complies with its own Low-Impact Development Standards Manual specifying BMPs to be implemented to minimize stormwater pollution, including soil erosion; thus, no mitigation is required to ensure implementation of this measure. Impacts of the Proposed project would also be less than significant, and no mitigation measure is required to reduce geology and soils impacts of the Proposed project.

MM GEO-1 Proper removal and disposal of excess soils and excavated materials.

3.7.2 PROJECT ENVIRONMENTAL REVIEW

The Proposed Project includes the following components that differ from the Approved Project: installation of safety lights; installation of a tank-mounted blower with ducting connected to the tank headspace; relocation of two 5,000-gallon temporary storage tanks to the northwest corner of the Project site from another site several miles away; removal of standing remnants of three burned trees from the Project site; and replacement of chain link fencing and gates on the site perimeter.

Existing conditions on and next to the site differ from those of 2003 identified in the ND in that several trees onsite and next to the east site boundary burned in 2018; standing remnants of three burned trees are present in the southwest part of the site.

43

LACPW issued its LID Standards Manual in 2014; parallel LACPW requirements were in place when the 2005 ND was adopted.

		New Significant Environmental Effect Caused by a Change in the Project or Circumstances	Substantial Increase in the Severity of a Previously Identified Significant Effect Caused by a Change in the Project or Circumstances	New or Substantially More Severe Significant Impacts Shown by New Information	Ability to Substantially Reduce a Significant Effect Shown by New Information but Declined by Proponent
3.7.2	Would the project:				
a.	Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
	i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to Division of Mines and Geology Special Report 42)	No	No	No	No
	ii. Strong seismic ground shaking?	No	No	No	No
	iii. Seismic-related ground failure, including liquefaction?	No	No	No	No
	iv.Landslides?	No	No	No	No
b.	Result in substantial soil erosion or the loss of topsoil?	No	No	No	No
C.	Be located on a geologic unit that is unstable, or that would become unstable as a result of the project, and potentially result in onsite or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?	No	No	No	No
d.	Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	No	No	No	No
e.	Have soils incapable of adequately supporting the use of a septic tank or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	No	No	No	No
f.	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	No	No	No	No

Impact Discussion

Would the project:

- a) Directly or indirectly cause 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 Subsequent Analysis Required. No active faults are mapped through or next to the Project site, and the nearest such fault continues to be the Malibu Coast Fault at a distance of about 1.1 miles. The nearest Alquist-Priolo Earthquake Fault Zone to the Project site is along a branch of the Malibu Coast Fault about 2.6 miles to the east. Proposed Project development would not cause hazards arising from surface rupture of a known earthquake fault due to the absence of such faults on or next to the Project site. None of the changes to the Project compared to the Approved Project, or the existing setting, would affect seismic hazards relative to Project implementation. No new or increased impacts would occur; no mitigation is required; and no subsequent analysis is needed.

ii) Strong seismic ground shaking?

No Subsequent Analysis Required. The estimated ground acceleration onsite due to an earthquake with an average return period of 2,475 years — that is, the maximum credible earthquake for the Project site — is about 0.90g, where g is the acceleration of gravity. Ground acceleration of 0.90g correlates with intensity IX on the Modified Mercalli Intensity (MMI) Scale (Wald et. al. 1999), a subjective scale of how earthquakes are felt by people and the effects of earthquakes on buildings. The MMI Scale is a 10-point scale summarized below in Table 7 (USGS 2019).

TABLE 7 MODIFIED MERCALLI INTENSITY SCALE

Intensity	Shaking	Description/Damage
I	Not felt	Not felt except by a very few under especially favorable conditions.
II	Weak	Felt only by a few persons at rest, especially on upper floors of buildings.
III	Weak	Felt quite noticeably by persons indoors, especially on upper floors of buildings. Many people do not recognize it as an earthquake.
IV	Light	Felt indoors by many, outdoors by few during the day. At night, some awakened. Dishes, windows, doors disturbed; walls make cracking sound.
V	Moderate	Felt by nearly everyone; many awakened. Some dishes, windows broken. Unstable objects overturned.
VI	Strong	Felt by all, many frightened. Some heavy furniture moved; a few instances of fallen plaster. Damage slight.
VII	Very strong	Damage negligible in buildings of good design and construction; slight to moderate in well-built ordinary structures; considerable damage in poorly built or badly designed structures; some chimneys broken.
VIII	Severe	Damage slight in specially designed structures; considerable damage in ordinary substantial buildings with partial collapse. Damage great in poorly built structures. Fall of chimneys, factory stacks, columns, monuments, walls. Heavy furniture overturned.
IX	Violent	Damage considerable in specially designed structures; well-designed frame structures thrown out of plumb. Damage great in substantial buildings, with partial collapse. Buildings shifted off foundations.
X	Extreme	Some well-built wooden structures destroyed; most masonry and frame structures destroyed with foundations. Rails bent.
Source: USG	S 2019	

Water storage facilities and pump structures required to maintain water pressure for fire suppression are classified as Essential Facilities by the 2019 California Building Code (CBC; California Code of Regulations Title 24 Part 2), Section 1604.5.5 Design and construction of the proposed tank would comply with CBC requirements governing design and construction of essential facilities. Impacts from strong ground shaking would be less than significant after compliance with applicable CBC provisions. None of the changes to the Project compared to the Approved Project, or the existing setting, would affect seismic hazards relative to Project implementation. No new or increased impacts would occur; no mitigation is required; and no subsequent analysis is needed.

iii) Seismic-related ground failure, including liquefaction?

No Subsequent Analysis Required. Liquefaction refers to loose, saturated sand or silt deposits that behave as a liquid and lose their load-supporting capability when strongly shaken. Loose granular soils and silts that are saturated by relatively shallow groundwater are susceptible to liquefaction. The 2005 ND identified liquefaction potential onsite and specified that the tank would be supported on a cast-in-place concrete pile foundation recommended to minimize liquefaction hazards. The 2012 geotechnical investigation included a liquefaction analysis and concluded that soils under the site have low liquefaction potential due to the relatively dense soil and shallow sandstone bedrock. Settlement of shallow soil due to liquefaction of underlying soil is estimated at about 0.5 inch. The geotechnical investigation report recommended use of a ring foundation; and excavation of existing soil to three feet below the bearing level of the new foundation, or the

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The CBC is updated on a three-year cycle; the 2019 CBC is scheduled to take effect on January 1, 2020.

bearing level of the existing foundation, whichever is deeper; and replacement of removed soil with compacted granular fill.

Based on the findings of the 2012 geotechnical investigation, the Proposed Project development would not cause significant hazards resulting from liquefaction. None of the changes to the Project compared to the Approved Project, or the existing setting, would affect liquefaction hazard relative to Project implementation. No new or increased impacts would occur; no mitigation is required; and no subsequent analysis is needed.

iv) Landslides?

No Subsequent Analysis Required. The Project site is paved and level, and Proposed Project development would not cause landslide hazards to people or structures on or near the site. None of the changes to the Project compared to the Approved Project, or the existing setting, would affect landslide hazard relative to Project implementation. No new or increased impacts would occur; no mitigation is required; and no subsequent analysis is needed.

b) Result in substantial soil erosion or the loss of topsoil?

No Subsequent Analysis Required. Demolition and construction activities related to the Proposed Project would disturb substantial amounts of soil and have the potential to result in soil erosion. Site grading and construction activities would include implementation of erosion control and sediment control best management practices per Los Angeles County Public Works Low-Impact Development Standards Manual (LID Manual). None of the changes to the Project compared to the Approved Project would involve substantial ground disturbance, and thus the changes would not cause substantial soil erosion. The change to the existing setting since 2003 (burning of vegetation) would not affect soil erosion relative to Project implementation. Consistent with the finding of the ND, no new or increased impacts would occur after compliance with LID Manual requirements; no mitigation is required; and no subsequent analysis is needed.

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?

No Subsequent Analysis Required. Impacts related to liquefaction and landslides are addressed above under thresholds GEO-a.iii and GEO-a.iv, respectively.

Subsurface site soils to depths of up to 14.5 to 20 feet below ground surface (bgs) consist of sandy clay, sandy silt, poorly graded sand with silt, silty sand, and clayey sand. Weakly cemented sandstone bedrock was found below the soils to the depth explored, 26.5 feet bgs.

Lateral spreading is horizontal displacement of surface sediment due to liquefaction in a subsurface layer. The Project site is not considered susceptible to lateral spreading due to the density of the subsurface soils.

The major cause of ground subsidence is the excessive withdrawal of groundwater. The Project site is not over a groundwater basin and is not in an area where groundwater is pumped for municipal or agricultural use. The District's water supplies consist of imported water from northern California and the Colorado River, and recycled water; the District does not use groundwater (WWD 29 2017). Proposed Project development would not cause subsidence.

Total soil settlement under the foundations of proposed buildings is estimated at about one inch over a horizontal span of 40 feet, and differential settlement under foundations is estimated at about 0.5 inch over the same span.

Collapsible soils shrink upon being wetted and/or being subject to a load. Site soils to a depth of the existing foundation; or three feet below the proposed foundation bottom, whichever is greater, are not considered suitable for supporting the proposed tank. The geotechnical investigation report recommends removal of such soil and replacing it with compacted granular fill. Compliance with recommendations of the geotechnical investigation report would minimize hazards from collapsible soils.

None of the changes to the Project compared to the Approved Project, or the existing setting, involve substantial ground disturbance or would cause or exacerbate hazards arising from unstable soils. No new or increased impact would occur; no mitigation is required; and no subsequent analysis is needed.

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

No Subsequent Analysis Required. One sample of subsurface soil from the northern part of the Project site is considered highly expansive, based on an expansion index test conducted as part of the geotechnical investigation. The recommendations for grading and foundation design in the geotechnical investigation report account for the expansive soils. Compliance with such recommendations would minimize hazards from expansive soils. A project could exacerbate expansive soils hazards by, for instance, subjecting soils to repeated cycles of wetting and drying. Proposed Project plans include installation of a parkway drain conveying overflow from the tank to South Busch Drive.

The changes to the Project compared to the Approved Project, and to the existing setting, would not repeatedly wet site soils. Thus, Proposed project implementation would not cause new or increased impact from expansive soils. No mitigation is required, and no subsequent analysis is needed.

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?

No Subsequent Analysis Required. Proposed project development would not use septic tanks or other alternative waste water disposal systems and would not impact soil stability relating to such systems. No new or increased impacts would occur; no mitigation is required; and no subsequent analysis is needed.

f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

No Subsequent Analysis Required. The information in this section is based on the records search results provided by the vertebrate paleontology department at the Natural History Museum of Los Angeles County (LACM) on August 12, 2019. A copy of the records search is included as Appendix D to this Addendum.

The 2019 paleontological records search identified one paleontological resource locality from late Pleistocene terrace deposits within a one-mile radius of the Project site. This locality produced a diverse late Pleistocene avian and mammalian fauna, including specimens that have been

included in scientific literature. While no LACM fossil localities have been documented from the underlying Trancas Formation, multiple localities are known from the Topanga Formation, which is equivalent in age and lithology. These localities have produced a number of marine fossil specimens including sharks, fish, sea cows, and whales. These results suggest that although the Project site does not contain any known paleontological resources, there may be a chance of encountering unknown, buried resources.

Earth moving activities associated with construction of the proposed Project could result in damage to or destruction of subsurface paleontological resources, which are considered to hold scientific value and are protected under California PRC Section 5097.5. However, the analysis of impacts to cultural resources in the 2005 ND stated that "if any cultural resources, including human remains, are discovered during construction, the contractor shall cease excavation and contact a specialist to examine the Project sites as required by project specifications."

Although no resources are known, implementation of this measure would reduce the impact associated with potential damage to unanticipated paleontological resources to a less-than-significant level.

Conclusion

Overall, the Proposed Project would be consistent with the project analyzed in the 2005 ND. As detailed above, the Proposed Project would occur within the same physical area as the Approved Project and be subject to the same geologic conditions. Additionally, due to the lack of earthwork in the area since approval of the ND in 2005 that could alter the Project site, impacts would be consistent. The ND concluded that impacts of Approved Project implementation to geology and soils would be less than significant. Proposed project development would not create a new significant impact or substantial increase in the severity of previously identified effects. In regard to Section 15162 of the State CEQA Guidelines, the Proposed Project (1) would not propose substantial changes; (2) would not have circumstantial changes under which the project is undertaken; and (3) would bring about no new information of substantial importance that would (a) create new significant impacts, (b) increase the severity of previously examined effects, (c) determine that mitigation measures or alternatives previously found not to be feasible would, in fact, be feasible, or (d) introduce mitigation measures that are considerably different from those analyzed in the previous documents. For these reasons, there are no major revisions required to the geology and soils analysis provided in the ND.

Project Design Feature and Regulatory Requirement

The following project design feature would be applicable to the proposed Project and was also applicable to the Approved project. Because this is a design feature of the Proposed Project, it does not constitute new mitigation.

PDF GEO-1

The County of Los Angeles Department of Public Works shall review the *Geotechnical Evaluation, Lower Busch Tank Project, Malibu, California* (Ninyo & Moore 2012) and all additional geotechnical reports prepared for the Project site and shall confirm that all geotechnical recommendations provided in it have been fully and appropriately incorporated into the site preparation and building design specifications. Compliance with geotechnical report recommendations is required under Los Angeles County Public Works Grading Guidelines, and no mitigation is required to ensure implementation of this PDF.

The following regulatory requirement was set forth in the ND; was applicable to the Approved Project; would be applicable to the proposed Project. Because this RR is intended to ensure compliance with an existing law or regulation, it does not constitute new mitigation.

RR GEO-1 The Project shall be designed and constructed in compliance with the American Water Works Association (AWWA) Standard D-100; and the County Building Code, which incorporates, by reference, the 2016 California Building Code (CBC, or the most recent County building and seismic codes in effect at the time the grading plans are approved) to ensure the structural integrity of proposed site improvements against seismic shaking. The County shall confirm this requirement is included in the building plans and Contractor Specifications. Contractor compliance with this requirement shall be performed to the satisfaction of the

County of Los Angeles Department of Public Works. Water storage facilities and pump structures required to maintain water pressure for fire suppression are classified as Essential Facilities by the 2019 CBC. CBC compliance is required for the Project, and no mitigation is required to ensure compliance with this RR.

3.8 GREENHOUSE GAS EMISSIONS

3.8.1 SUMMARY OF PREVIOUS ENVIRONMENTAL ANALYSIS

At the time the 2005 ND was adopted, greenhouse gas (GHG) emissions were not part of the required CEQA analysis. Effective March 18, 2010, the State adopted amendments to the State CEQA Guidelines requiring the analysis and mitigation of the effects of GHG emissions in draft CEQA documents. The State CEQA Guidelines regarding GHG emissions do not specifically address situations involving subsequent implementation actions for a project with a previously certified EIR or adopted ND. However, as described below, courts have ruled that there is no requirement to address GHG emissions in an Addendum to an EIR that was completed prior to the adopted CEQA amendments. Although there is no requirement to address GHG emissions in this Addendum, an analysis is provided following the discussion of relevant court decisions.

3.8.2 PROJECT ENVIRONMENTAL REVIEW

Climate change refers to any significant change in measures of climate (e.g., average temperature, precipitation, or wind patterns) over a period of time. Climate change may result from natural factors, natural processes, and human activities that change the composition of the atmosphere and alter the surface and features of the land. Significant changes in global climate patterns have recently been associated with global warming, which is an average increase in the temperature of the atmosphere near the Earth's surface; this is attributed to an accumulation of GHG emissions in the atmosphere. GHGs trap heat in the atmosphere which, in turn, increases the Earth's surface temperature. Some GHGs occur naturally and are emitted to the atmosphere through natural processes, while others are created and emitted solely through human activities. The emission of GHGs through fossil fuel combustion in conjunction with other human activities appears to be closely associated with global warming.

GHGs, as defined under California's Assembly Bill (AB) 32, include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). General discussions on climate change often include water vapor, atmospheric ozone, and aerosols in the GHG category. Water vapor and atmospheric ozone are not gases that are formed directly in the construction or operation of development Projects, nor can they be controlled in these Projects. Aerosols are not gases. While these elements have a role in climate change, they are not considered by either regulatory bodies, such as CARB, or climate change groups, such as the California Climate Action Registry, as gases to be reported

or analyzed for control. Therefore, no further discussion of water vapor, atmospheric ozone, or aerosols is provided.

The Proposed Project includes the following components differing from the Approved Project: installation of safety lights; installation of a tank-mounted blower with ducting connected to the tank headspace; relocation of two 5,000-gallon temporary storage tanks to the northwest corner of the Project site from another site several miles away; removal of standing remnants of three burned trees from the Project site; and replacement of chain link fencing and gates on the site perimeter.

Existing conditions on and next to the site differ from those of 2003 identified in the ND in that several trees onsite and next to the east site boundary burned in 2018; standing remnants of three burned trees are present in the southwest part of the site.

City of Malibu

The City of Malibu has adopted the State of California's CalGreen and Title 24 energy efficiency standards as well as Landscape Water Conservation Standards. The City also requires that at least 65 percent of construction and demolition waste be recycled or salvaged for reuse consistent with CALGreen Section 5.408. The City has been recognized for sustainability actions as discussed in the City of Malibu Sustainability Best Practice Activities. This document represents a collection of activities the City has completed in 10 areas of sustainability. These areas include Energy Efficiency and Conservation Activities, Water & Wastewater Systems Activities, Green Building Activities, Waste Reduction and Recycling Activities, Climate-friendly Purchasing Activities, Renewable Energy and Low Carbon Fuels Activities, Efficient Transportation Activities, Land Use and Community Design Activities, Open Space and Offsetting Carbon Emission Activities, and Promoting Community and Individual Action Activities.

		New Significant Environmental Effect Caused by a Change in the Project or Circumstances	Substantial Increase in the Severity of a Previously Identified Significant Effect Caused by a Change in the Project or Circumstances	Substantially More Severe Significant Impacts Shown by New Information	Substantially Reduce a Significant Effect Shown by New Information but Declined by Proponent
3.8.2	Would the project:				
a.	Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?	No	No	No	No
b.	Conflict with any applicable plan, policy or regulation of an agency adopted for the purposes of reducing the emissions of GHGs?	No	No	No	No

Ability to

New or

Impact Discussion

Would the project:

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

No Subsequent Analysis Required. In developing methods for GHG impact analysis, there have been suggestions of quantitative thresholds, often referred to as screening levels, which define an emissions level below which it may be presumed that climate change impacts would be less than significant. Neither the SCAQMD, the City of Malibu nor the County of Los Angeles have adopted a significance threshold for the GHG emissions from non-industrial development projects.

Beginning in April 2008, the SCAQMD convened a Working Group to provide guidance to local lead agencies on determining significance for GHG emissions in their CEQA documents. On December 5, 2008, the SCAQMD Governing Board adopted its staff proposal for an interim CEQA GHG significance threshold of 10,000 metric tons of CO₂ equivalent per year (MTCO2_e/yr) for projects where the SCAQMD is the lead agency (SCAQMD 2008). In September 2010, the Working Group presented a revised tiered approach to determining GHG significance for residential and commercial projects wherein Tier 1 determines if a project qualifies for an applicable CEQA exemption; Tier 2 determines consistency with GHG reduction plans; and Tier 3 proposes a numerical screening value as a threshold. At their September 28, 2010 meeting, the Working Group suggested a Tier 3 threshold of 3,000 metric tons of carbon dioxide equivalent (MTCO₂e) per year for all land use types (SCAQMD 2010).

It is noted that the use of the Tier 3 threshold is selected for the Project because it is in the SoCAB and these thresholds are based on the best available information and data at the time of preparation of this document. The development of CEQA project-level thresholds is an ongoing effort at State, regional, and County levels, and significance thresholds may differ for future projects based on new or additional data and information that may be available for consideration at that time.

Construction

Construction GHG emissions are generated by vehicle engine exhaust from construction equipment, on-road hauling trucks, vendor trips, and worker commuting trips. Construction GHG emissions were calculated by using CalEEMod Version 2016.3.2 (the model is described in Section 4.3, Air Quality). Input details are provided in Appendix A. The results are output in MTCO₂e for the construction phase. The estimated construction GHG emissions for the Project are shown in Table 8, Estimated Annual Greenhouse Gas Emissions From Construction.

GHG emissions generated from construction activities are finite and would occur for a relatively short-term time period. Unlike the numerous opportunities available to reduce a project's long-term GHG emissions through design features, operational restrictions, use of green-building materials, and other methods, GHG emissions-reduction measures for construction equipment are relatively limited. Therefore, SCAQMD staff recommended that construction emissions be amortized over a 30-year project lifetime, so that GHG reduction measures will address construction GHG emissions as part of the operational GHG reduction strategies (SCAQMD 2008). As shown in Table 8, Estimated Annual Greenhouse Gas Emissions from Construction, the 30-year amortized construction emissions would be 4 MTCO₂e/yr.

The changes to the proposed Project compared to the Approved Project would not involve substantial additional construction effort and thus would not considerably affect Project GHG emissions.

TABLE 8
ESTIMATED ANNUAL GREENHOUSE GAS EMISSIONS
FROM CONSTRUCTION

Year	Emissions (MTCO₂e)
2021 ^{a.}	115
Total	115
Amortized Annual Emissions*	4

a. This analysis was completed based on construction occurring in 2021. Construction is expected to occur in 2026 and, due to the progressive technologies found in construction equipment, the anticipated emissions are likely to be less through use of cleaner equipment. Therefore, these estimates continue to apply and represent a conservative analysis.

MTCO2e: metric tons of carbon dioxide equivalent

* Combined total amortized over 30 years

Operations

As stated previously, the Project site is developed with existing water storage infrastructure. The Project would not result in a change in the number of vehicle trips or energy consumption association with the proposed Project. Consequently, there would be no change in the quantity of GHG emissions associated with Project over existing uses.

Construction and operational GHG emissions are combined by amortizing the construction operations over a 30-year period. As shown in Table 9, Estimated Annual Greenhouse Gas Emissions, with consideration of amortized construction emissions, the total annual estimated GHG emissions for the proposed Project is 4 MTCO₂e/yr. This value is less than the proposed SCAQMD screening threshold of 10,000 MTCO₂e/yr for industrial uses that is being applied in this analysis. It is accepted as very unlikely that any individual development project would have GHG emissions of a magnitude to directly impact global climate change; therefore, there would be no direct project GHG emissions impact and any impact would be considered on a cumulative basis. Because the proposed Project's GHG emissions would be less than 10,000 MTCO₂e/yr, the emissions would not be cumulatively considerable. Therefore, the proposed Project would result in less than significant GHG emissions.

The changes to the proposed Project compared to the Approved Project would not directly emit GHGs and would not substantially increase Project energy demands (for instance the blower would operate for two hours at dusk). No new or increased impacts would occur; no mitigation is required; and no subsequent analysis is needed.

TABLE 9 ESTIMATED TOTAL ANNUAL GREENHOUSE GAS EMISSIONS

Source	Emissions MTCO₂e/yr		
Construction (amortized) (from Table 16)	4		
Operations	0		
Total	4		
SCAQMD Significance Threshold for Industrial Uses	10,000		
Exceeds Threshold?	No		
MTCO ₂ e/yr: metric tons of carbon dioxide equivalent per year.			

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

No Subsequent Analysis Required. The SCAQMD and the City of Malibu have not adopted standards for the purpose of reducing GHG emissions. As discussed previously, the State policy and standards adopted for the purpose of reducing GHG emissions that are applicable to the proposed Project are Executive Order S-3-05, AB 32, the California Global Warming Solutions Act of 2006, and Senate Bill (SB) 32. The quantitative goal of these regulations is to reduce GHG emissions to 1990 levels by 2020 to 80 percent below 1990 levels by 2050, and for SB 32, to 40 percent below 1990 levels by 2030. Statewide plans and regulations (such as GHG emissions standards for vehicles, the Low Carbon Fuel Standard, Cap-and-Trade, and renewable energy) are being implemented at the Statewide level, and compliance at a project level is not addressed.

The proposed Project proposes replacement of the existing concrete water tank with a steel water tank and development of ancillary structures. The Project would not require additional energy use or vehicular trips and consequently would not result in an increase in GHG emissions. As previously discussed, the increase in GHG emissions would be less than SCAQMD's recommended significance threshold for industrial uses. Because the operation of the Project would not result in an increase in GHG emissions, implementation of the Project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions. There would be no impact. There would be no significant adverse impacts related to GHG emissions; therefore, no mitigation measures are required.

Conclusion

Overall, the Proposed Project would be consistent with the project analyzed in the 2005 ND. Although GHG emissions were not specifically quantified as part of the 2005 ND process, the characteristics of the previously Approved Project would be similar to the Proposed Project, as detailed above. Proposed Project development would not create a new significant impact or substantial increase in the severity of previously identified effects. In regard to Section 15162 of the State CEQA Guidelines, the Proposed Project (1) would not propose substantial changes; (2) would not have circumstantial changes under which the project is undertaken; and (3) would bring about no new information of substantial importance that would (a) create new significant impacts, (b) increase the severity of previously examined effects, (c) determine that mitigation measures or alternatives previously found not to be feasible would, in fact, be feasible, or (d) introduce mitigation measures that are considerably different from those analyzed in the previous documents. For these reasons, there are no major revisions required to the GHG analysis provided in the ND.

3.9 HAZARDS AND HAZARDOUS MATERIALS

3.9.1 SUMMARY OF PREVIOUS ENVIRONMENTAL ANALYSIS

The 2005 ND stated that the Approved Project site was not known as a hazardous materials site; and that Approved Project development would not involve routine transport, use, or disposal of hazardous materials. No impacts related to hazardous materials were identified.

The 2005 ND determined that the Project site was not within two miles of an airport and concluded that no airport-related hazards would occur. The ND concluded that Approved Project development would not expose people or structures to wildland fire hazards.

Previously Approved Measure

As all impacts were determined to be less than significant, no mitigation measures were required for the 2005 design; however, the following mitigation measures were included in the analysis in connection with the 2005 ND; was applicable to the Approved Project; and would also be applicable to the proposed Project. The ND identified no impacts for all hazards and hazardous materials impacts, did not identify significant impacts, and did not state that mitigation measures were required to reduce impacts to less than significant.

MM HAZ-1 Proper maintenance of all construction equipment.

MM HAZ-2 Compliance with all applicable laws and ordinances regarding chemical cleanup.

3.9.2 PROJECT ENVIRONMENTAL REVIEW

The information in this Section is based partly on the Radius Map Report for Lower Busch Tank completed by Environmental Data Resources, Inc. (EDR) on July 16, 2019; a complete copy of this report is included as Appendix E to this Addendum.

The Proposed Project includes the following components differing from the Approved Project: installation of safety lights; installation of a tank-mounted blower with ducting connected to the tank headspace; relocation of two 5,000-gallon temporary storage tanks to the northwest corner of the Project site from another site several miles away; removal of standing remnants of three burned trees from the Project site; and replacement of chain link fencing and gates on the site perimeter.

Existing conditions on and next to the site differ from those of 2003 identified in the ND in that several trees onsite and next to the east site boundary burned in 2018; standing remnants of three burned trees are present in the southwest part of the site.

		New Significant Environmental Effect Caused by a Change in the Project or Circumstances	Substantial Increase in the Severity of a Previously Identified Significant Effect Caused by a Change in the Project or Circumstances	New or Substantially More Severe Significant Impacts Shown by New Information	Ability to Substantially Reduce a Significant Effect Shown by New Information but Declined by Proponent
3.9.2	Would the project:				
a.	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	No	No	No	No
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?	No	No	No	No
C.	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	No	No	No	No
d.	Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	No	No	No	No
е.	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	No	No	No	No

Impact Discussion

Would the project:

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

No Subsequent Analysis Required. Project construction would involve use of hazardous materials including fuels, lubricants, cleansers, paints and other coatings, and pesticides. In compliance with MM HAZ-1, hazardous materials would be used, stored, transported, and disposed of in compliance with regulations of several agencies including the Occupational Safety and Health Administration, USEPA, US Department of Transportation, Department of Toxic Substances Control, and Los Angeles County Fire Department. Regulatory compliance would reduce hazards arising from routine transport, use, and disposal of hazardous materials (refer to RR HAZ-1).

The changes to the Project compared to the Approved Project would not involve use of substantial amounts of hazardous materials and thus would not cause substantial hazards arising from routine transport, use, or disposal of hazardous materials. No new or increased impacts would occur; no mitigation is required; and no subsequent analysis is needed.

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?

No Subsequent Analysis Required. Pursuant to the Los Angeles County Fire Department Hazardous Materials Management Program, the project construction contractor would train workers on containment and cleanup of hazardous materials spills (refer to MM HAZ-2); would keep equipment and supplies for containing and cleaning up spills on-site; and would contact the appropriate authorities immediately in the event of a spill of hazardous materials that could not be safely contained and cleaned up by on-site personnel (LACoFD 2009). No substantial hazards would arise from use of hazardous materials by project construction. Any hazardous materials found during project construction requiring off-site transport would be transported by a licensed hazardous waste transporter in accordance with RR HAZ-1 set forth below., No new significant impact would occur.

Project operation would involve use of only very small amounts of hazardous materials for cleaning, maintenance, and disinfection purposes; such use would not pose substantial hazards to the public or the environment.

The changes to the Project compared to the Approved Project would not involve use of substantial amounts of hazardous materials and would not interfere with compliance with regulations governing hazardous materials use; and thus would not increase hazards from accidental release of hazardous materials. No mitigation is required and no subsequent analysis is needed.

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

No Subsequent Analysis Required. There are no schools within 0.25 mile of the Project site. Proposed project development would not subject people at schools to hazards from hazardous materials. No new impact would occur, no mitigation is required and no subsequent analysis is needed.

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

No Subsequent Analysis Required. The Project site is not listed as a hazardous materials site on any of the databases searched as part of the environmental database search conducted by EDR on July 16, 2019. One site is listed within 0.25 mile of the Project site: the property at 5911 Busch Drive, about 1,100 feet south-southwest of the Project site, is listed as a site not currently generating hazardous waste (Resource Conservation and Recovery Act [RCRA] Non-Generator/No Longer Regulated [NonGen / NLR]) (EDR 2019). That site is not an environmental concern for the Proposed Project. The changes to the Project relative to the Approved Project would not cause hazards related to listed hazardous materials sites. No new or increased impacts would occur; no mitigation is required; and no subsequent analysis is needed.

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

No Subsequent Analysis Required. There are no airports within two miles of the Project site, and the site is not in an airport land use plan (LACALUC 2019). Proposed project development would not cause hazards or excessive noise for people on the Project site. The changes to the Project compared to the Approved Project would not affect airport-related hazards. No mitigation is required and no subsequent analysis is needed.

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

No Subsequent Analysis Required. The Proposed Project would provide adequate emergency access to the site. The two existing locking gates, one near the northeast corner of the site and one near the southeast, would be replaced by two new locking gates in similar positions. None of the changes to the Project, compared to the Approved Project, would affect implementation of an emergency response plan. Proposed project implementation would have slight favorable impact on water storage capacity for fire flow in the Project site environs, and thus would have a slight favorable impact on emergency response capability. No new or increased adverse impact would occur. No mitigation is required, and no subsequent analysis is needed.

g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

No Subsequent Analysis Required. The Project site is in a Very High Fire Hazard Severity Zone mapped by the California Department of Forestry and Fire Protection (CAL FIRE 2019). The project would involve removal of the existing concrete tank and construction of a steel tank and steel fencing. The proposed improvements are non-flammable and would not provide wildfire fuel or otherwise exacerbate wildfire hazards on or near the Project site. Some construction activities, including welding and cutting, generate sparks that could pose a wildfire ignition hazard. Project design feature PDF HAZ-1 is incorporated into the project requiring use of standard equipment and techniques to minimize fire hazards from hot work, including keeping combustible materials clear of hot work areas; use of fire-retardant blankets to cover combustible materials when removal of such materials from near hot work areas is impracticable; and inspection of the work site at completion of hot work for any potential ignition. Landscaping along the fence immediately outside of the east Project site boundary that was proposed as part of the Approved Project has been deleted from the Proposed Project, thus slightly reducing future wildfire fuel next to the Project site. The changes to the Project compared to the Approved Project would not affect wildfire hazards. The change to the existing setting (burning of vegetation) since 2003 reduces wildfire fuel onsite. No new or increased adverse impact would occur. No mitigation is required, and no subsequent analysis is needed.

Conclusion

Overall, the Proposed Project would be consistent with the project analyzed in the 2005 ND. The ND concluded that Approved Project implementation would not cause impacts to hazards and hazardous materials. As detailed above, the Proposed Project would not introduce any new hazardous conditions to the Project site and the current site conditions would be consistent with what was analyzed in the 2005 ND. Proposed project development would not create a new significant impact or substantial increase in the severity of previously identified effects. In regard to Section 15162 of the State CEQA Guidelines, the Proposed Project (1) would not propose

substantial changes; (2) would not have circumstantial changes under which the project is undertaken; and (3) would bring about no new information of substantial importance that would (a) create new significant impacts, (b) increase the severity of previously examined effects, (c) determine that mitigation measures or alternatives previously found not to be feasible would, in fact, be feasible, or (d) introduce mitigation measures that are considerably different from those analyzed in the previous documents. For these reasons, there are no major revisions required to the hazards and hazardous materials analysis provided in the ND.

Project Design Feature and Regulatory Requirement

The following Project Design Feature would be applicable to the proposed Project. Because this is a design feature of the Proposed Project, it does not constitute new mitigation.

PDF HAZ-1 During construction activities, LACDPW shall employ standard equipment and techniques to minimize fire hazards from activities generating sparks, such as welding and cutting ("hot work"); including keeping combustible materials clear of hot work areas; use of fire-retardant blankets to cover combustible materials when removal of such materials from near hot work areas is impracticable; and inspection of the work site at completion of hot work for any potential ignition.

The following regulatory requirement would be applicable to the proposed Project. Because this regulatory requirement is intended to ensure compliance with an existing law or regulation, it does not constitute new mitigation.

Puring construction activities, hazardous materials encountered on the Project site requiring off-site disposal shall be transported off site by a properly licensed hazardous waste hauler who shall be in compliance with all applicable State and federal requirements, including California Department of Transportation (Caltrans) regulations. Hazardous materials that may be encountered during Proposed Project implementation shall be handled, treated, and/or disposed of in accordance with applicable regulations and/or the requirements of the local oversight agency(ies). The County shall confirm this requirement is included in the

Contractor Specifications, and contractor compliance with this requirement shall be performed to the satisfaction of the County of Los Angeles Department of Public Works.

3.10 HYDROLOGY AND WATER QUALITY

3.10.1 SUMMARY OF PREVIOUS ENVIRONMENTAL ANALYSIS

The 2005 ND concluded that Approved Project development would comply with Best Management Practices pursuant to National Pollutant Discharge Elimination System requirements, and thus would not impact water quality. Approved Project construction would not impact groundwater supplies. Project development would not impact drainage patterns; erosion; or runoff rate or volume. Project development would not impact the capacity of existing or planned stormwater drainage facilities, nor would it place housing in a 100-year flood zone. Development would not expose people or structures to flood hazards, such as being located in a dam inundation area. Proposed project development would not be subject to flooding by seiche, tsunami, or mudflow.

Previously Approved Measure

As all impacts were determined to be less than significant, no mitigation measures were required for the 2005 design; however, the following measure was included in the analysis in connection with the 2005 ND; was applicable to the Approved Project; and would also be applicable to the proposed Project. The ND identified no impacts for all hydrology and water quality impacts, did not identify significant impacts, and did not state that mitigation measures were required to reduce impacts to less than significant.

MM WQ-1 Compliance with all applicable Best Management Practices as required by the National Pollutant Discharge Elimination System permit issued to the County by the Regional Water Quality Control Board.

Procedures and measures for compliance with National Pollutant Discharge Elimination System requirements for projects under Los Angeles County jurisdiction are set forth in the Low Impact Development Standards Manual (LID Manual) issued by Los Angeles County Public Works in 2014.

3.10.2 PROJECT ENVIRONMENTAL REVIEW

The Proposed Project includes the following components differing from the Approved Project: installation of safety lights; installation of a tank-mounted blower with ducting connected to the tank headspace; relocation of two 5,000-gallon temporary storage tanks to the northwest corner of the Project site from another site several miles away; removal of standing remnants of three burned trees from the Project site; and replacement of chain link fencing and gates on the site perimeter.

Existing conditions on and next to the site differ from those analyzed in the 2005 ND in that several trees onsite and next to the east site boundary burned in 2018; standing remnants of three burned trees are present in the southwest part of the site.

		New Significant Environmental Effect Caused by a Change in the Project or Circumstances	Substantial Increase in the Severity of a Previously Identified Significant Effect Caused by a Change in the Project or Circumstances	New or Substantially More Severe Significant Impacts Shown by New Information	Ability to Substantially Reduce a Significant Effect Shown by New Information but Declined by Proponent
3.10.2	Would the project:				
a.	Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	No	No	No	No
b.	Substantially decrease groundwater supplies or substantially interfere with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	No	No	No	No
C.	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
	i. Result in substantial erosion or siltation on- or offsite?				
	ii. Substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or offsite?	No	No	No	No
	iii.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?	No	No	No	No
d.	In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	No	No	No	No
е.	Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	No	No	No	No

Impact Discussion

Would the project:

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

No Subsequent Analysis Required. Proposed project construction would generate pollutants including fuels, lubricants, paints and other coatings, asphalt, concrete, and trash and debris, that could contaminate stormwater. Proposed project construction would include implementation of Best Management Practices required by the District per Mitigation Measure WQ-1 stated above and project design feature PDF WQ-1 set forth below. Project operation would generate negligible pollutants that could contaminate stormwater. The changes to the Project compared to the Approved Project would not generate substantial amounts of pollutants that could contaminate stormwater. The change to the existing setting since 2003 (burning of vegetation) would not affect pollutant generation by Project implementation. No new or increased adverse impact would occur. No mitigation is required, and no subsequent analysis is needed.

b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

No Subsequent Analysis Required. Due to the nature of the Proposed Project as a water storage facility, Project development would not decrease groundwater supplies. The Project site is not used for groundwater recharge, and development would not impact recharge. The changes to the Project compared to the Approved Project would not affect groundwater supplies or recharge. No new or increased impact would occur; no mitigation is required; and no subsequent analysis is needed.

- c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:
 - (i) result in substantial erosion or siltation on- or off-site;

No Subsequent Analysis Required. Consistent with the finding of the ND, Proposed project development would not substantially change the drainage pattern onsite. The site grading plan shows a slight south slope with elevations ranging from about 319 feet AMSL at the northeast corner of the site to 315 feet AMSL at the southwest corner. Most of the site would remain paved with asphalt. Therefore, development is not expected to change runoff rate or volume from the site. Project development would not cause substantial erosion or siltation on- or off-site due to the lack of exposed erodible soil onsite and because development would not change the amount of runoff from the site. The changes to the Project compared to the Approved Project would not involve substantial ground disturbance; and would not interfere with implementation of erosion control and sediment control BMPs by the Project; and, thus, would not cause new or increased erosion or siltation impacts. No mitigation is required; and no subsequent analysis is needed.

(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;

No Subsequent Analysis Required. Project development would not change the amount or rate of runoff from the site. Proposed project development includes installation of a parkway drain designed to capture overflow from the tank to Busch Drive. The changes to the Project compared

to the Approved Project would not create substantial amount of new impervious area and thus would not substantially increase the amount of runoff from the Project site. No new or increased impact would occur; no mitigation is required; and no subsequent analysis is needed.

(iii) 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; or

No Subsequent Analysis Required. Proposed project development includes installation of a parkway drain designed to capture overflow from the tank to Busch Drive. Proposed project development would not increase the amount of runoff from the site, as the entire site is already impervious. The changes to the Project compared to the Approved Project would not substantially increase runoff from the site and would not affect the capacity of existing or planned stormwater drainage systems. No new or increased impact would occur; no mitigation is required; and no subsequent analysis is needed.

(iv) impede or redirect flood flows?

No Subsequent Analysis Required. The Project site is in an area of unknown flood hazard (Zone D designated by the Federal Emergency Management Agency) (FEMA 2019). The site is in the upper part of a slope on the east side of a small canyon; thus, flooding is not expected onsite. Project development would not cause or exacerbate flooding. The changes to the Project compared to the Approved Project would not affect flood flows. The change to the existing setting since 2003 (burning of trees) would not affect flood flows. No new or increased impact would occur; no mitigation is required; and no subsequent analysis is needed.

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

No Subsequent Analysis Required. The Project site is not in a flood zone.

A seiche is a surface wave created when an inland water body is shaken, usually by an earthquake. The design of the proposed tank would be based on the estimated peak ground acceleration onsite of 0.90g, which has an average return period of 2,475 years. Proposed project development includes installation of a parkway drain draining overflow from the tank to Busch Drive. Thus, Proposed Project development would not pose substantial flood hazards to people or structures downslope from the tank due to tank failure resulting from an earthquake. No new substantial impact would occur.

A tsunami is an ocean wave caused by a sudden displacement of the ocean floor, most often due to earthquakes. The Project site is at an elevation of over 300 feet AMSL and is not in a tsunami flood zone. No new significant impact would occur.

The changes to the Project compared to the Approved Project would not affect flood hazards onsite and thus would not affect the potential for release of pollutants due to flooding. No new or increased impact would occur; no mitigation is required; and no subsequent analysis is needed.

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

No Subsequent Analysis Required. The Los Angeles Regional Water Quality Control Board (LARWQCB) adopted the Water Quality Control Plan (WQCP) for the LARWQCB region in 1994. The WQCP sets forth beneficial uses, water quality objectives, and implementation actions aimed at achieving objectives, for water bodies in the region. Proposed project implementation would not conflict with the WQCP.

The changes to the Project relative to the Approved Project would not affect implementation of the WQCP. No new or increased impact would occur; no mitigation is required; and no subsequent analysis is needed.

Conclusion

Overall, the Proposed Project would be consistent with the project analyzed in the 2005 ND. The ND concluded that Approved Project implementation would not impact hydrology and water quality. As detailed above, the Proposed Project would be developed within the same physical area as the Approved Project and the physical characteristics would be substantially similar to the Approved Project. Therefore, Proposed project development would not create a new significant impact or substantial increase in the severity of previously identified effects. In regard to Section 15162 of the State CEQA Guidelines, the Proposed Project (1) would not propose substantial changes; (2) would not have circumstantial changes under which the project is undertaken; and (3) would bring about no new information of substantial importance that would (a) create new significant impacts, (b) increase the severity of previously examined effects, (c) determine that mitigation measures or alternatives previously found not to be feasible would, in fact, be feasible, or (d) introduce mitigation measures that are considerably different from those analyzed in the previous documents. For these reasons, there are no major revisions required to the hydrology and water quality analysis provided in the ND.

Project Design Feature

The following project design feature would be applicable to the proposed Project. Because this is a design feature of the Proposed Project, it does not constitute new mitigation.

PDF WQ-1

Pursuant to Waste Discharge Requirements for Municipal Storm Water and Urban Runoff Discharges within County of Los Angeles, and the Incorporated Cities Therein, Except the City of Long Beach (Order No. R4-2012-0175), NPDES No. CAS004001), of which the City of Malibu is a co-permittee, the contractor shall develop and incorporate BMPs for reducing or eliminating construction-related pollutants in site runoff. The County shall confirm this requirement is included in the Contractor Specifications, and contractor compliance with this requirement shall be performed to the satisfaction of the County of Los Angeles Department of Public Works.

Procedures and measures for compliance with Order No. R4-2012-0175 for projects under Los Angeles County jurisdiction are set forth in the Low Impact Development Standards Manual (LID Manual) issued by Los Angeles County Public Works in 2014. No mitigation is required to ensure implementation of this PDF.

3.11 LAND USE AND PLANNING

3.11.1 SUMMARY OF PREVIOUS ENVIRONMENTAL ANALYSIS

The ND determined that Approved Project development would not divide an established community; would not conflict with land use policies; and would not conflict with a habitat conservation plan or natural community conservation plan.

3.11.2 PROJECT ENVIRONMENTAL REVIEW

The Proposed Project includes the following components differing from the Approved Project: installation of safety lights; installation of a tank-mounted blower with ducting connected to the tank headspace; relocation of two 5,000-gallon temporary storage tanks to the northwest corner of the Project site from another site several miles away; removal of standing remnants of three burned trees from the Project site; and replacement of chain link fencing and gates on the site perimeter.

Existing conditions on and next to the site differ from those of 2003 identified in the ND in that several trees onsite and next to the east site boundary burned in 2018; standing remnants of three burned trees are present in the southwest part of the site.

		New Significant Environmental Effect Caused by a Change in the Project or Circumstances	Substantial Increase in the Severity of a Previously Identified Significant Effect Caused by a Change in the Project or Circumstances	New or Substantially More Severe Significant Impacts Shown by New Information	Ability to Substantially Reduce a Significant Effect Shown by New Information but Declined by Proponent
3.11.2	Would the project:				
a.	Physically divide an established community?	No	No	No	No
b.	Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	No	No	No	No

Impact Discussion

Would the project:

a) Physically divide an established community?

No Subsequent Analysis Required. Proposed project development would not divide an established community. The new tank would be built within the same parcel containing the existing tank. Security fencing is in place on the Project site perimeter, and the site is not used as an access way through the surrounding neighborhood. The changes to the Project relative to the Approved Project would occur within the Project site (except for removal of the two temporary storage tanks from their current site approximately 10 miles east of the Project site) and would have no impact respecting division of an established community. No new or increased impact would occur; no mitigation is required; and no subsequent analysis is needed.

b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

No Subsequent Analysis Required. The existing General Plan land use designation onsite is Rural Residential, which permits large lot single-family development with lots ranging from 1 to 40 acres. The existing zoning district onsite is RR2, Rural Residential, permitting single-family residential units on lots of two acres or larger. Public water system tanks are not specified as a permitted use in Rural Residential zoning districts.⁶ Water tanks are required for maintaining necessary water pressure in the City and are considered critical public facilities. Thus, while water tanks are not specified as permitted uses in the RR2 zoning district, the use is not considered to conflict with policies for that district. Additionally, the proposed height of 26 feet would be consistent with Variance No 13-042 approved by the City of Malibu in July 2020. The changes to the Project relative to the Approved Project would not cause any conflicts with existing land use regulations for the Project site. No new or increased impact would occur; no mitigation is required; and no subsequent analysis is needed.

The Project site is not in a habitat conservation plan or natural community conservation plan, and Proposed Project development would not conflict with such a plan. No new or increased impact would occur; no mitigation is required; and no subsequent analysis is needed.

Conclusion

Overall, the Proposed Project would be consistent with the project analyzed in the 2005 ND. The ND concluded that Approved Project implementation would not impact land use and planning. As detailed above, the Proposed Project would be developed within the same physical area and would be subject to the same land use regulations as the Approved Project. Due to the similarity between the Approved Project and the Proposed Project, Proposed Project development would not create a new significant impact or substantial increase in the severity of previously identified effects. In regard to Section 15162 of the State CEQA Guidelines, the Proposed Project (1) would not propose substantial changes; (2) would not have circumstantial changes under which the project is undertaken; and (3) would bring about no new information of substantial importance that would (a) create new significant impacts, (b) increase the severity of previously examined effects, (c) determine that mitigation measures or alternatives previously found not to be feasible would, in fact, be feasible, or (d) introduce mitigation measures that are considerably different from those analyzed in the previous documents. For these reasons, there are no major revisions required to the land use and planning analysis provided in the 2005 ND.

3.12 MINERAL RESOURCES

3.12.1 SUMMARY OF PREVIOUS ENVIRONMENTAL ANALYSIS

The ND concluded that no impact to mineral resources would occur; and stated that the Project site is not identified as a mining site in the local general plan or other land use plan.

3.12.2 PROJECT ENVIRONMENTAL REVIEW

The Proposed Project includes the following components differing from the Approved Project: installation of safety lights; installation of a tank-mounted blower with ducting connected to the tank headspace; relocation of two 5,000-gallon temporary storage tanks to the northwest corner

The City of Malibu Municipal Code specifies permitted uses for all five Rural Residential zoning districts combined, not for each of the five districts separately.

of the Project site from another site several miles away; removal of standing remnants of three burned trees from the Project site; and replacement of chain link fencing and gates on the site perimeter.

Existing conditions on and next to the site differ from those of 2003 identified in the ND in that several trees onsite and next to the east site boundary burned in 2018; standing remnants of three burned trees are present in the southwest part of the site.

		New Significant Environmental Effect Caused by a Change in the Project or Circumstances	Substantial Increase in the Severity of a Previously Identified Significant Effect Caused by a Change in the Project or Circumstances	New or Substantially More Severe Significant Impacts Shown by New Information	Ability to Substantially Reduce a Significant Effect Shown by New Information but Declined by Proponent
3.12.2	Would the project:				
a.	Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	No	No	No	No
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?	No	No	No	No

Impact Discussion

Would the project:

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

No Subsequent Analysis Required. The Project site is mapped in Mineral Resource Zone 3 (MRZ-3) by the California Geological Survey, indicating that the area contains mineral resources, the significance of which cannot be determined from available data (CGS 1981). No mines are mapped near the Project site on the Mines Online map maintained by the Office of Mine Reclamation (OMR 2019).

The site is developed with a water tank and is not available for mining. In addition, mining is incompatible with surrounding residential uses. Proposed project development would not cause a loss of availability of a known mineral resource. The changes to the Project relative to the Approved Project would not affect availability of mineral resources or incompatibility of mining with surrounding land uses. No new or increased impact would occur; no mitigation is required; and no subsequent analysis is needed.

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?

No Subsequent Analysis Required. The California Geological Survey has not mapped mineral resources in the Malibu area (Malibu 1995). No subsequent analysis is needed.

Conclusion

Overall, the Proposed Project would be consistent with the project analyzed in the 2005 ND. The ND concluded that Approved Project implementation would not impact mineral resources. As detailed above, the Proposed Project would be developed within the same physical area as the Approved Project. Therefore, Proposed Project development would not create a new significant impact or substantial increase in the severity of previously identified effects. In regard to Section 15162 of the State CEQA Guidelines, the Proposed Project (1) would not propose substantial changes; (2) would not have circumstantial changes under which the project is undertaken; and (3) would bring about no new information of substantial importance that would (a) create new significant impacts, (b) increase the severity of previously examined effects, (c) determine that mitigation measures or alternatives previously found not to be feasible would, in fact, be feasible, or (d) introduce mitigation measures that are considerably different from those analyzed in the previous documents. For these reasons, there are no major revisions required to the mineral resources analysis provided in the ND.

3.13 NOISE

The information in this Section is based on the Noise Calculations for Lower Busch Tank included as Appendix E to this Addendum.

3.13.1 SUMMARY OF PREVIOUS ENVIRONMENTAL ANALYSIS

The 2005 ND determined, regarding construction noise, that construction would be temporary and would comply with existing regulations of the US Occupational Safety and Health Administration and limits on construction hours set forth the Los Angeles County noise control ordinance. Construction noise impact was identified as less than significant. The ND concluded that construction vibration impacts would be short-term and less than significant. The ND determined that the Approved Project did not propose noise-generating features that would cause a permanent increase in noise and that operational noise impacts would be less than significant. The ND stated that the Project site is not within two miles of an airport and that Approved Project development would not cause airport-related noise impacts.

3.13.2 PROJECT ENVIRONMENTAL REVIEW

The Proposed Project includes the following components differing from the Approved Project: installation of safety lights; installation of a tank-mounted blower with ducting connected to the tank headspace; relocation of two 5,000-gallon temporary storage tanks to the northwest corner of the Project site from another site several miles away; removal of standing remnants of three burned trees from the Project site; and replacement of chain link fencing and gates on the site perimeter.

Existing conditions on and next to the site differ from those of 2003 identified in the ND in that several trees onsite and next to the east site boundary burned in 2018; standing remnants of three burned trees are present in the southwest part of the site.

Sensitive Receptors

Noise-sensitive receptors are generally considered to be humans who are engaged in activities that may be subject to the stress of significant interference from noise. The nearest sensitive receptors to the Project site are residential uses located adjacent to the Project site and across Busch Drive. More specifically, the Project site is located within an established and fully developed residential community, with detached single-family homes that border the Project site to the north

(approximately 170 feet), west (approximately 140 feet), and south (approximately 80 feet), and across Busch Drive to the east (approximately 160 feet).

City of Malibu Noise Element and Municipal Code

The City of Malibu has established guidelines and standards in the General Plan and the Municipal Code.

General Plan Noise Element

The City of Malibu is affected by several different sources of noise, including automobile traffic, commercial activity, periodic nuisances such as construction, and other sources typical of urban and suburban areas. The predominant noise source in Malibu is vehicular traffic from Pacific Coast Highway, the major canyon roads, and the local arterials. Stationary sources within the City include a wide range of recreational, commercial, and business activities. The Noise Element of the General Plan is intended to identify these sources and provide objectives and policies that ensure that noise from these sources does not create an unacceptable noise environment (Malibu 1995).

The Noise Element of the General Plan acknowledges that noise from major roadways may affect sensitive receptors; the dominant noise source in Malibu is roadway traffic from Pacific Coast Highway (PCH) which runs east/west throughout the City. Additional roadway traffic noise arises from some of the canyon roads including, Malibu Canyon Road and Kanan Dume Road which run north/south.

The following policy measures are applicable to the Project:

Policy N-1.1.1	The City shall protect residences, parks and recreational areas from
	excessive noise to permit the enjoyment of activities.

- Policy N-1.1.2 The City shall protect noise sensitive land uses from negative impacts of proximity to noise generating uses.
- Policy N-1.1.4 The City shall work with businesses and residents in a joint effort to plan, control, and attain an acceptable noise environment.
- Policy N-1.1.5 The City shall encourage new construction and remodels which utilize designs and materials that reduce exposure to noise sources.
- Policy N-1.1.6 The City shall review proposed development to ensure the average ambient noise is as low as feasible to maintain the rural atmosphere.

The City adopted eight (8) measure to ensure these policies are implemented into practice:

N Implementation Measure 1: Adopt a noise control ordinance to minimize or eliminate unacceptable noise levels.

N Implementation Measure 2: Limit maximum permissible noise levels from all sources, including but not limited to filming, motorized vehicles, construction, leaf blowers and other landscaping equipment.

N Implementation Measure 3: Maintain the Building Code Sound Transmission Control Standards of the State Building Code, Title 24, Part 2, Appendix 35 within the City's adopted Building Code.

N Implementation Measure 5: Restrict the hours and days of construction, grading, and filming to reduce noise from this source.

N Implementation Measure 6: Require an acoustical analysis as part of proposed development to ensure that noise mitigation is included in the project where activities associated with proposed uses are likely to produce noise levels exceeding the adopted City noise level standards, at existing or planned noise-sensitive uses, including but not limited to, residences, schools, hospitals, long term in-patient medical treatment and care facilities, churches and libraries,

N Implementation Measure 7: Use site planning and project design as noise mitigations to achieve the specified standards for transportation or non-transportation sources.

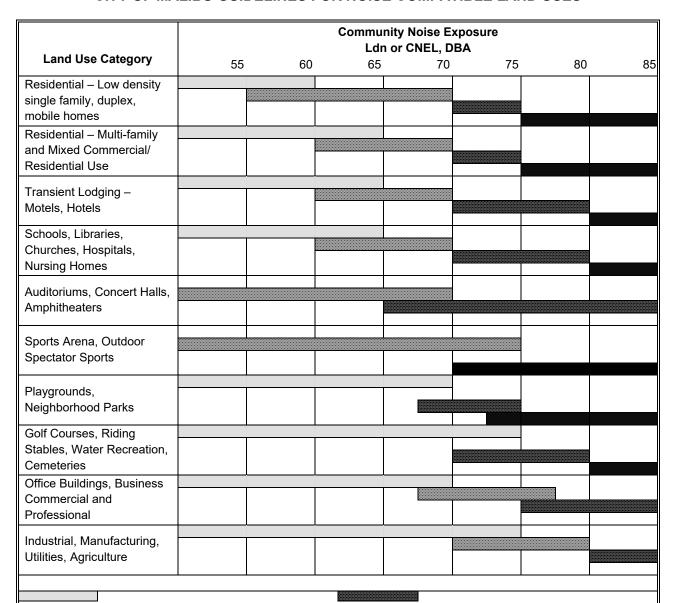
N Implementation Measure 8: Use open space, wherever practical, to provide an adequate spatial separator between noise sources and sensitive land uses. Use noise barriers as a supplemental means of achieving the noise standards after all feasible design related noise mitigation measures have been integrated into the project.

N Implementation Measure 10: Incorporate the consideration of noise impacts on significant wildlife habitats into the development review process.

The Noise Element contains guidelines for noise-compatible land use for long-term operations, as shown in Table 24, City of Malibu Guidelines for Noise Compatible Land Uses.

While the compatibility guidelines in Table 10 below show the degree of noise exposure that is considered acceptable, the Noise Element also provides exterior noise standards for non-transportation and transportation sources, as shown in Table 11, City of Malibu Maximum Allowable Noise Exposure Transportation Noise Sources and Table 12, Maximum Exterior Noise Limits Non-Transportation Sources.

TABLE 10 CITY OF MALIBU GUIDELINES FOR NOISE COMPATIBLE LAND USES



NORMALLY ACCEPTABLE

Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirement.

CONDITIONALLY ACCEPTABLE

New construction or development should be undertaken after an analysis of the noise reduction requirements is made and needed noise insulation features included in the design.

Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.

Source: Malibu 1995.

NORMALLY UNACCEPTABLE

If new construction or development proceeds, an analysis of the noise reduction requirements should be made and needed noise insulation features included in the design.

CLEARLY UNACCEPTALBE

New construction or development should generally not be undertaken, unless it can be demonstrated that an interior level of 45 dBA can be achieved.

TABLE 11 MAXIMUM ALLOWABLE NOISE EXPOSURE TRANSPORTATION NOISE SOURCES

	Outdoor Activity Areas ¹	Interior S	paces
Land Use	L _{dn} /CNEL, dB	L _{dn} /CNEL, dB	L _{eq} /dB ²
Residential	50 ³	45	_
Transient housing	60 ³	45	_
Hospitals, long term in-patient medical treatment and care facilities	60 ³	45	_
Theaters, auditoria, music halls	60 ³	_	35
Churches and meeting halls	60 ³	_	40
Office buildings	60 ³	_	45
Schools, libraries and museums, child care	60 ³	_	45
Playgrounds and neighborhood parks	70	-	_

dBA: A-weighted decibels; Leq: equivalent noise level; CNEL: Community Noise Level Equivalent.

Source: Malibu Noise Element of the General Plan, Table 6-5 (Malibu 1995).

TABLE 12
MAXIMUM ALLOWABLE NOISE EXPOSURE NON-TRANSPORTATION
NOISE SOURCES

Receiving Land Use	General Plan Land		Noise	Level dBA
Category	Use Districts	Time Period	L_{eq}	L _{max}
Rural	All RR Zones and PRF, CR, AH, OS	7:00 a.m. to 7:00 p.m. 7:00 p.m. to 10:00 p.m. 10:00 p.m. to 7:00 a.m.	55 50 40	75 65 55
Other Residential	All SFR, MFR and MFBF Zones	7:00 a.m. to 7:00 p.m. 7:00 p.m. to 10:00 p.m. 10:00 p.m. to 7:00 a.m.	55 50 45	75 65 60
Commercial, Industrial	CN, CC, CV, CG, and I Zones	7:00 a.m. to 7:00 p.m. 7:00 p.m. to 7:00 a.m.	65 60	85 70

dBA: A-weighted decibels; L_{eq} : equivalent noise level; L_{max} : Maximum Noise Level. Source: Malibu Noise Element of the General Plan, Table 6-4 (Malibu 1995).

Municipal Code

The City's Municipal Code (Chapter 8, Noise Control Ordinance of the City of Malibu) is the City's Noise Ordinance. As stated in the Municipal Code, "In order to control unnecessary, excessive and annoying noise and vibration in the city, it is declared to be the policy of the city to prohibit

Where the location of outdoor activity areas is unknown, the exterior noise level standard shall be applied to the property line of the receiving land use.

² As determined for a typical worst-case hour during periods of use.

Where it is not possible to reduce noise in outdoor activity areas to 50 dB L_{dn}/CNEL or less using practical application of the best-available noise reduction measures, an exterior noise level of up to 65 dB L_{dn}/CNEL may be allowed provided that available exterior noise level reduction measures have been implemented and interior noise levels are in compliance with this table.

such noise and vibration (§ 8.24.020)." The following sections of the Noise Ordinance are applicable to the proposed Project:

8.24.040 Prohibited Noises.

No person shall make, or cause or suffer, or permit to be made upon any premises owned, occupied or controlled by such person, any unnecessary noises, sounds or vibrations which are physically annoying to reasonable persons of ordinary sensitivity or which are so harsh or so prolonged or unnatural or unusual in their use, time, or place as to occasion unnecessary discomfort to any persons within the neighborhood from which the noises emanate or which interfere with the peace and comfort of the residents or their guests, or the operators or customers in places of business in the vicinity, or which may detrimentally or adversely affect such residences or places of business. (Prior code § 4203)

8.24.050 Prohibited Acts.

- A. Unnecessary noises: the unnecessary making of, or knowingly and unnecessarily permitting to be made, any loud, boisterous or unusual noise, disturbance, commotion or vibration in any boarding facility, dwelling, place of business or other structure, or upon any public street, park or other place or building, except the ordinary and usual sounds, noises, commotion or vibration incidental to the operation of said places when conducted in accordance with the usual and normal standard of practice applicable thereto and in a manner which will not disturb the peace and comfort of adjacent residences or which will not detrimentally affect the operators or customers of adjacent places of business
- D. Engines, motors and mechanical devices near residential district: except as provided in subsection G of this section regarding construction-related noise, the sustained operation or use between the hours of ten p.m. and seven a.m. of any electric or gasoline powered motor or engine or the repair, modification, reconstruction, testing or operation of any automobile, motorcycle, machine or mechanical device or other contrivance or facility unless such motor, engine, automobile, motorcycle, machine or mechanical device is enclosed within a sound insulated structure so as to prevent noise and sound from being plainly audible at a distance of fifty (50) feet from such structure, or within ten (10) feet of any residence;
- G. Construction: operating or causing the operation of any tools, equipment, impact devices, derricks or hoists used in construction, chilling, repair, alteration, demolition or earthwork, on weekdays between the hours of seven p.m. and seven a.m., before eight a.m. or after five p.m. on Saturday, or at any time on Sundays or holidays, except as provided in Section 8.24.060(D);
- K. Leaf blowers: the use or operation of any portable machine powered with a combustion or gasoline engine used to blow leaves, dirt and other debris off sidewalks, driveways, lawns and other surfaces; in addition, until August 1, 2019 the use or operation, in the area of the city west of Malibu Canyon Road extending to the western boundary of the city, of any portable machine used to blow leaves, dirt and other debris off sidewalks, driveways, lawns and other surfaces including any fire debris.

8.24.060 Exemptions.

- D. Construction—Special Circumstances. The provisions of Section 8.24.050 do not apply to any person who performs construction, repair, excavation or earthmoving work pursuant to the expressed written permission of the city manager to perform such work at times prohibited in Section 8.24.050. The applicant must submit to the city manager an application in writing, stating the reasons for the request and the facts upon which such reasons are based. The city manager may grant written permission for the construction if he or she finds that:
 - 1. The work proposed to be done is in the public interest,
 - 2. Hardship, injustice or unreasonable delay would result from the interruption thereof during the hours and days specified in Section 8.24.050, or
 - 3. The building or structure involved is devoted or intended to be devoted to a use immediately incident to public defense.

Any applicant dissatisfied with the decision of the city manager may appeal to the city council by filing a notice of appeal with the city clerk within ten (10) days after notice of the city manager's decision. The city council shall, within thirty (30) days of filing the appeal, affirm, reverse or modify the decision of the city manager.

The provisions of Section 8.24.050 do not apply to the construction, repair, or excavation during prohibited hours as may be necessary for the preservation of life or property, when such necessity arises during such hours as the offices of the city are closed, or where such necessity requires immediate action prior to the time at which it would be possible to obtain a permit pursuant to this section. The person doing such construction, repair or excavation shall obtain a permit therefor within one business day of such construction, repair or excavation;

8.24.070 Enforcement.

The city manager shall have primary responsibility for the enforcement of the noise regulations contained herein. Nothing in this chapter shall prevent the city manager from obtaining voluntary compliance by way of warning, notice or education. (Prior code § 4206)

		New Significant Environmental Effect Caused by a Change in the Project or Circumstances	Substantial Increase in the Severity of a Previously Identified Significant Effect Caused by a Change in the Project or Circumstances	New or Substantially More Severe Significant Impacts Shown by New Information	Ability to Substantially Reduce a Significant Effect Shown by New Information but Declined by Proponent
3.13.2	Would the project:				
a.	Result in a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	No	No	No	No
b.	Result in generation of excessive groundborne vibration or groundborne noise levels?	No	No	No	No
C.	For a project located within the vicinity of a private airstrip or 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??	No	No	No	No

Impact Discussion

Would the project:

a) Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Project-Related Temporary Noise Increases

No Subsequent Analysis Required. Temporary noise increases associated with the Project would occur during the construction phase. Construction activities are anticipated to involve demolition of existing structures and pavement, excavation for parking, utilities and water tank foundations, and construction of the tank and ancillary structures. Construction activities are anticipated to start and finish in approximately 1 year in 2026. All construction activities would occur within the hours specified by the Noise Ordinance.

It is estimated that a total of approximately 245 tons of debris would be exported off site during demolition activities. It is also anticipated that 400 cubic yards of soil would be removed from the site and 600 cubic yards of soil would be imported. During the demolition and excavation activities, trucks are expected to enter and leave the Project site on a regular basis during working hours. The number of truck trips traveling along the City-designated truck routes would vary daily depending on the nature of the construction activity at the site. Demolition debris removal from the Project site would generate an estimated 41 trips over 3 weeks. On average it is anticipated that 3 to 4 truck trips per day would occur during that phase. Excavation is anticipated to generate

a total of 166 total truck trips over a 5 to 6 week period with an average of 2 truck trips per day. The addition of 2 to 4 haul truck trips per day would not result in a substantial change in noise levels along local truck routes. Thus, this impact would be less than significant; no new impacts would occur.

In typical construction projects (such as the proposed Project), demolition and grading activities generate the highest noise levels since these phases involve use of the largest equipment. During demolition and grading, persons in the immediate vicinity of the construction site would experience short-term noise impacts related to the operation of heavy construction equipment such as bulldozers, hoe-rams, excavators, and dump trucks. Noise levels would fluctuate depending on equipment type, duration of use, and distance between noise source and receiver. The operation of heavy equipment may occur adjacent to existing residential uses.

Local residential uses would be subject to elevated noise levels due to the operation of Project-related construction equipment. Construction activities would be carried out in discrete steps, each of which has its own mix of equipment and, consequently, its own noise characteristics. These various sequential phases would change the character of the noise levels surrounding the construction site as work progresses. Construction noise levels reported in the USEPA's *Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances* were used to estimate future construction noise levels for the Project (USEPA 1971). Typically, the estimated construction noise levels are governed primarily by equipment that produces the highest noise levels. Construction noise levels for each generalized construction phase (ground-clearing/demolition, excavation, foundation construction, building construction, paving, and site cleanup) are based on a typical construction equipment mix for a public works project and do not include use of atypical, very loud, and vibration-intensive equipment (e.g., pile drivers).

The degree to which noise-sensitive receptors are affected by construction activities depends heavily on their proximity. Estimated noise levels attributable to construction of the proposed Project are shown in Table 13, Construction Noise Levels at Noise Sensitive Uses, and calculations are included in Appendix F, *Noise Calculations* (Psomas 2019c).

TABLE 13
CONSTRUCTION NOISE LEVELS AT NOISE-SENSITIVE USES

	Noise Leve	ls (L _{eq} dBA)				
Residential Uses to the North of the Project Site	Residential Uses to the West of the Project Site	Residential Uses to the South of the Project Site	Residential Use to the East of the Project Site			
Max (60 ft)	Avg (75 ft)	Avg (60 ft)	Avg (100 ft)			
82	80	82	78			
77	75	77	73			
76	74	76	72			
73	71	73	69			
73	71	73	69			
	to the North of the Project Site Max (60 ft) 82 77 76 73	Max (60 ft) Avg (75 ft) 82 80 77 75 76 74 73 71	to the North of the Project Site to the West of the Project Site to the South of the Project Site Max (60 ft) Avg (75 ft) Avg (60 ft) 82 80 82 77 75 77 76 74 76 73 71 73			

L_{eq} dBA: Average noise energy level; Max: maximum; avg: average; ft: feet

Note: Noise levels from construction activities do not take into account attenuation provided by intervening structures.

Source: USEPA 1971.

Table 13 shows both the average noise levels for construction equipment. Average noise levels represent the noise exposure to sensitive uses based on the distance to the center of the Project

site. Noise levels from general Project-related construction activities would range from 69 to 82 dBA $L_{\rm eq}$ for average noise levels. The development of the proposed Project would comply with Municipal Code Section 8.24.050.G, which establishes restrictions for construction activities. With the incorporation of the restrictions of construction noise generation to the least noise sensitive portions of the day per Municipal Code Section 8.24.050.G, the relatively short construction duration and the lack of high magnitude noise sources (pile driving), the Project would result in less than significant temporary noise impacts.

The changes to the Proposed project compared to the Approved Project would not involve substantial construction effort and thus would not generate construction noise considerably greater than that estimated in the ND. Change to the existing setting since 2003 (burning of trees) slightly reduces the site clearance effort needed in preparation for Proposed project construction (some of the trees that would have been removed by the Approved Project burned and were subsequently removed).

Permanent Project-Related Noise Increases

Permanent sources of noise associated with the Project involves vehicle trips traveling to and from the Project site, property maintenance activities (landscaping) and mechanical sources of noise.

Noise Generated by Project Traffic

No Subsequent Analysis Required. The Project would not generate additional vehicle trips associated with maintenance of the water tank than currently occurs. As such, there would be no noise increases associated with project related traffic noise. The impact on traffic noise levels would be less than significant and no mitigation is required. The changes to the Proposed project compared to the Approved Project would not generate operational vehicle trips and thus would not generate traffic noise.

Noise Generated by On-Site Sources

No Subsequent Analysis Required. The primary on-site noise is generated by operation of the pump stations outside of the tank, inside circulation of water, and the vent and blower. Noise generated by these sources is regulated under Municipal Code Section 8.24.050.D which requires that any mechanical device to be enclosed within a sound insulated structure to prevent noise and sound from being plainly audible at a distance of fifty (50) feet from such structure, or within ten (10) feet of any residence. Compliance with this requirement would result in less than significant impacts related to stationary sources of noise.

The Proposed project would include installation of one tank-mounted blower with ducting connected to the tank headspace; the blower would be encased in all-weather sound panels to absorb noise. The blower and sound panels were not part of the Approved Project.

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

No Subsequent Analysis Required. There are no applicable City standards for structural damage from vibration. The California Department of Transportation (Caltrans) vibration damage potential guideline thresholds are shown in Table 14, Vibration Damage Threshold Criteria.

TABLE 14 VIBRATION DAMAGE THRESHOLD CRITERIA

	Maximum ppv (in/sec)	
Structure and Condition	Transient Sources	Continuous/Frequent Intermittent Sources
Extremely fragile historic buildings, ruins, ancient monuments	0.12	0.08
Fragile buildings	0.20	0.10
Historic and some old buildings	0.50	0.25
Older residential structures	0.50	0.30
New residential structures	1.00	0.50
Modern industrial/commercial buildings	2.00	0.50

ppv: peak particle velocity; in/sec: inch(es) per second.

Note: Transient sources create a single isolated vibration event, such as blasting or drop balls. Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.

Source: Caltrans 2013.

The nearest structures to the Project site are residential uses located adjacent to the Projects northern, western and southern property lines. In terms of classifications in Table 14, the structures to the east and west are conservatively considered "new residential structures" for purposes of this analysis. Therefore, the criterion for a significant impact for continuous/frequency intermittent sources is 0.5 peak particle velocity (ppv) inches per second for new residential structures. Similar to structural damage from vibration, there are no applicable quantitative standards in the City's Municipal Code for human annoyance from construction vibration. The Caltrans vibration annoyance potential guideline thresholds are shown in Table 15, Vibration Annoyance Criteria. Based on the guidance in Table 15, the "strongly perceptible" vibration level of 0.9 ppv in/sec is used in this analysis as the threshold for a potentially significant vibration impact for human annoyance.

TABLE 15
VIBRATION ANNOYANCE CRITERIA

Average Human Response	ppv (in/sec)			
Severe	2.000			
Strongly perceptible	0.900			
Distinctly perceptible	0.240			
Barely perceptible	0.035			
ppv: peak particle velocity; in/sec: inch(es) per second.				
Source: Caltrans 2013.				

Conventional construction equipment would be used for demolition and grading activities, with no pile driving or blasting equipment. Table 16, Vibration Levels for Construction Equipment summarizes typical vibration levels measured during construction activities for various vibration-inducing equipment at a distance of 25 feet.

TABLE 16
VIBRATION LEVELS FOR CONSTRUCTION EQUIPMENT

Equipment	ppv at 25 ft (in/sec)			
Vibratory roller	0.210			
Large bulldozer	0.089			
Caisson drilling	0.089			
Loaded trucks	0.076			
Jackhammer	0.035			
Small bulldozer 0.003				
ppv: peak particle velocity; ft: feet; in/sec: inches per second.				
Source: Caltrans 2013; Federal Transit Administration 2006.				

Demolition, grading, and construction would occur up to the property lines and off-site land uses could occur relatively close to the property lines. Residential structures to the west, south and east of the Project site are being reconstructed due to the Woolsey fire. As such, the distance from construction activities to the nearest buildings cannot be readily discerned. However, it is anticipated that the nearest offsite structures would not occur closer than 15 feet from construction activities. As such, worst-case vibration levels occurring at this distance was assessed. Table 17, Vibration Annoyance Criteria at Sensitive Uses, shows the vibration annoyance criteria from construction-generated vibration activities proposed at the Project site. Table 17, Vibration Annoyance Criteria at Sensitive Uses, shows the ppv relative to uses proximate to the Project site.

TABLE 17
VIBRATION ANNOYANCE CRITERIA AT SENSITIVE USES

	Vibration Levels (ppv)		
	Residential Uses Proximate to the Project Site		
Equipment	(ppv @ 15 ft)		
Vibratory roller	0.452		
Large bulldozer	0.191		
Small bulldozer	0.006		
Jackhammer	0.075		
Loaded trucks	0.164		
Criteria	0.9		
Exceeds Criteria?	No		
ppv: peak particle velocity; Max: maximum; avg: average; ft: feet			

Note: Calculations can be found in Appendix F).

Source: USEPA 1971

As shown in Table 17, ppv would not exceed the criteria threshold when construction activities occur under worst-case (i.e., closest to the receptor) exposure conditions. These vibration levels represent conditions when construction activities occur closest to receptor locations. Construction-related vibration would be substantially less when construction activities are located further away. Because vibration levels would be below the significance thresholds, vibration generated by the Project's construction equipment would not be expected to generate strongly perceptible levels of vibration at the nearest uses and would result in less than significant vibration impacts related to vibration annoyance.

Table 18, Structural Damage Criteria at Sensitive Uses, shows the peak particle velocity levels (ppv) relative to structural damage to sensitive uses from vibration activities.

TABLE 18
STRUCTURAL DAMAGE CRITERIA AT NEARBY STRUCTURES

	Vibration Levels (ppv)			
	Residential Uses Proximate to the Project Site			
Equipment	(ppv @ 15 ft)			
Vibratory roller	0.452			
Large bulldozer	0.191			
Small bulldozer	0.006			
Jackhammer	0.075			
Loaded trucks	0.164			
Criteria	0.5			
Exceeds Criteria?	No			

ppv: peak particle velocity; Max: maximum; avg: average; ft: feet

Source: USEPA 1971 (Calculations can be found in Attachment B).² Jackhammering assumed to maintain a clearance of at least 5 feet from adjacent offsite buildings.

Note: Calculations can be found in Appendix F).

Source: USEPA 1971

As shown in Table 18, all ppv levels would be below the structural damage threshold at 15 feet or further from nearby off-site structures. As such, potential impacts associated with cosmetic structural damage would be less than significant.

Operation of the components of the Proposed project differing from the Approved Project would not generate substantial ground vibration. Installation of the referenced components would not involve use of construction equipment generating substantial ground vibration. No new or increased impact would occur; no mitigation is required; and no subsequent analysis is needed.

c) For a project located within the vicinity of a private airstrip or 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?

No Subsequent Analysis Required. The Project site is not within 2.0 miles of an airport. There are no private airstrips in the Project area or in the City. The nearest public airport is the Santa Monica Airport, which is 21 miles east of the Project site. The Project site is not within the planning areas (including the Runway Protection Zones, Safety Compatibility Zones, and Airport Impact Zones) for these airports. Therefore, the Project would not expose people residing or working in the Project area to excessive noise levels from airport operations. Changes to the Proposed project relative to the Approved Project would not affect aviation-related noise levels. No new or increased impact would occur; no mitigation is required; and no subsequent analysis is needed.

Conclusion

Overall, the Proposed Project would be consistent with the project analyzed in the 2005 ND. The ND concluded that impacts of Approved Project implementation to noise would be less than significant. As detailed above, the Proposed Project would generate a similar level of noise impacts and would impact the same type of uses as the Approved Project. The only notable

differences would be the addition of a blower and sound panels which would not create a significant noise impact. Proposed Project development would not create a new significant impact or substantial increase in the severity of previously identified effects. In regard to Section 15162 of the State CEQA Guidelines, the Proposed Project (1) would not propose substantial changes; (2) would not have circumstantial changes under which the project is undertaken; and (3) would bring about no new information of substantial importance that would (a) create new significant impacts, (b) increase the severity of previously examined effects, (c) determine that mitigation measures or alternatives previously found not to be feasible would, in fact, be feasible, or (d) introduce mitigation measures that are considerably different from those analyzed in the previous documents. For these reasons, there are no major revisions required to the noise analysis provided in the ND.

3.14 POPULATION AND HOUSING

3.14.1 SUMMARY OF PREVIOUS ENVIRONMENTAL ANALYSIS

The 2005 ND concluded that Approved Project development would not cause population and housing impacts: development would not directly or indirectly cause population growth; and would not displace housing or residents.

3.14.2 PROJECT ENVIRONMENTAL REVIEW

The Proposed Project includes the following components differing from the Approved Project: installation of safety lights; installation of a tank-mounted blower with ducting connected to the tank headspace; relocation of two 5,000-gallon temporary storage tanks to the northwest corner of the Project site from another site several miles away; removal of standing remnants of three burned trees from the Project site; and replacement of chain link fencing and gates on the site perimeter.

Existing conditions on and next to the site differ from those of 2003 identified in the ND in that several trees onsite and next to the east site boundary burned in 2018; standing remnants of three burned trees are present in the southwest part of the site.

		New Significant Environmental Effect Caused by a Change in the Project or Circumstances	Substantial Increase in the Severity of a Previously Identified Significant Effect Caused by a Change in the Project or Circumstances	New or Substantially More Severe Significant Impacts Shown by New Information	Ability to Substantially Reduce a Significant Effect Shown by New Information but Declined by Proponent
3.14.2	Would the project:				
а.	Induce substantial unplanned 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	No	No	No
b.	Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	No	No	No	No

Impact Discussion

Would the project:

a) Induce substantial unplanned 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 Subsequent Analysis Required. The proposed replacement of an existing tank would serve existing residents and planned population growth in the City of Malibu and would not induce unplanned growth. The Proposed Project does not propose extension of infrastructure; water inlet and outlet connections would be to existing water mains in Busch Drive. Project development would also not extend roadways to open new areas up for development. Changes to the Proposed project relative to the Approved Project would not develop new homes or businesses, or extend infrastructure, and thus would not induce population growth in the region. No new or increased impact would occur; no mitigation is required; and no subsequent analysis is needed.

b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

No New Impact. There are no residents or housing onsite, and development would not displace residents or housing. Changes to the Proposed project relative to the Approved Project would not displace housing or residents. No new or increased impact would occur; no mitigation is required; and no subsequent analysis is needed.

Conclusion

Overall, the Proposed Project would be consistent with the project analyzed in the 2005 ND. The ND concluded that Approved Project implementation would not impact population and housing. As detailed above and consistent with the Approved Project, the Proposed Project would not directly generate additional population and would serve the existing residents and planned population growth in the City of Malibu. Proposed project development would not create a new significant impact or substantial increase in the severity of previously identified effects. In regard to Section 15162 of the State CEQA Guidelines, the Proposed Project (1) would not propose substantial changes; (2) would not have circumstantial changes under which the project is undertaken; and (3) would bring about no new information of substantial importance that would (a) create new significant impacts, (b) increase the severity of previously examined effects, (c) determine that mitigation measures or alternatives previously found not to be feasible would, in fact, be feasible, or (d) introduce mitigation measures that are considerably different from those analyzed in the previous documents. For these reasons, there are no major revisions required to the population and housing analysis provided in the ND.

3.15 PUBLIC SERVICES

3.15.1 SUMMARY OF PREVIOUS ENVIRONMENTAL ANALYSIS

The 2005 ND concluded that Approved Project development would not affect public services or require construction of altered facilities for fire protection, police protection, schools, parks, or other public facilities; and that no impact would occur.

Now or

Ability to

3.15.2 PROJECT ENVIRONMENTAL REVIEW

The Proposed Project includes the following components differing from the Approved Project: installation of safety lights; installation of a tank-mounted blower with ducting connected to the tank headspace; relocation of two 5,000-gallon temporary storage tanks to the northwest corner of the Project site from another site several miles away; removal of standing remnants of three burned trees from the Project site; and replacement of chain link fencing and gates on the site perimeter.

Existing conditions on and next to the site differ from those of 2003 identified in the ND in that several trees onsite and next to the east site boundary burned in 2018; standing remnants of three burned trees are present in the southwest part of the site.

New Significant Environmental Effect Caused by a Change in the Project or Circumstances Substantia In the Severity of a Previously Identified Significant Effect Caused by a Change in the Project or Circumstances Shown by New Information	re Reduce a t Significant Effect Shown by New Information but Declined by
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3.15.2 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	No	No	No
Police protection?	No	No	No	No
Schools?	No	No	No	No
Parks?	No	No	No	No
Other public facilities?	No	No	No	No

Impact Discussion

Would the project:

a) 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 Subsequent Analysis Required. The proposed tank, pipes, fencing, and pavement would all be constructed of nonflammable materials; therefore, development would not increase demands for fire protection. Components of the Proposed project differing from the Approved Project would consist of the same types of materials as proposed in the Approved Project; and would not add people or new or intensified land uses to the site. Thus, the changes would not affect demand for fire protection. No new or increased impact would occur; no mitigation is required; and no subsequent analysis is needed.

Police protection?

No Subsequent Analysis Required. The site would be fenced with locked gates on the Busch Avenue frontage; thus, the proposed tank would not increase demands for police protection. Changes to the Proposed project relative to the Approved Project would not add people or new or intensified land uses to the site, and thus would not affect demands for police protection. No subsequent analysis is required.

Schools?

No Subsequent Analysis Required. Project development, including changes to the Proposed project relative to the Approved Project, would not add households to the area and thus would not increase demands for schools. No subsequent analysis is required.

Parks?

No Subsequent Analysis Required. Project development, including changes to the Proposed project compared to the Approved Project, would not increase population on or near the site and thus would not increase demands for parks. No subsequent analysis is required.

Other public facilities?

No Subsequent Analysis Required. Development of the Proposed project, including changes to the project compared to the Approved project, would not increase population on or near the site and thus would not increase demands for libraries. No subsequent analysis is required.

Conclusion

Overall, the Proposed Project would be consistent with the project analyzed in the 2005 ND. The ND concluded that Approved Project implementation would not impact public services. As detailed above and consistent with the Approved Project, the Proposed Project would implement infrastructure improvements and would not increase demand for public services. Proposed project development would not create a new significant impact or substantial increase in the severity of previously identified effects. In regard to Section 15162 of the State CEQA Guidelines, the Proposed Project (1) would not propose substantial changes; (2) would not have circumstantial changes under which the project is undertaken; and (3) would bring about no new information of substantial importance that would (a) create new significant impacts, (b) increase the severity of previously examined effects, (c) determine that mitigation measures or alternatives previously found not to be feasible would, in fact, be feasible, or (d) introduce mitigation measures that are considerably different from those analyzed in the previous documents. For these reasons, there are no major revisions required to the public services analysis provided in the ND.

3.16 RECREATION

3.16.1 SUMMARY OF PREVIOUS ENVIRONMENTAL ANALYSIS

The ND determined that Approved Project development would not increase use of existing parks, and that no impact would occur.

3.16.2 PROJECT ENVIRONMENTAL REVIEW

The Proposed Project includes the following components differing from the Approved Project: installation of safety lights; installation of a tank-mounted blower with ducting connected to the

tank headspace; relocation of two 5,000-gallon temporary storage tanks to the northwest corner of the Project site from another site several miles away; removal of standing remnants of three burned trees from the Project site; and replacement of chain link fencing and gates on the site perimeter.

Existing conditions on and next to the site differ from those of 2003 identified in the ND in that several trees onsite and next to the east site boundary burned in 2018; standing remnants of three burned trees are present in the southwest part of the site.

		New Significant Environmental Effect Caused by a Change in the Project or Circumstances	Substantial Increase in the Severity of a Previously Identified Significant Effect Caused by a Change in the Project or Circumstances	New or Substantially More Severe Significant Impacts Shown by New Information	Ability to Substantially Reduce a Significant Effect Shown by New Information but Declined by Proponent
3.16.2	Would the project:				
a.	Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.	No	No	No	No
b.	Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment.	No	No	No	No

Impact Discussion

Would the project:

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

No Subsequent Analysis Required. Development of the Proposed project, including changes to the project compared to the Approved project, would not increase population on or near the Project site and would not impact use of existing parks. No new or increased impact would occur; no mitigation is required; and no subsequent analysis is needed.

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 Subsequent Analysis Required. The Proposed Project, including changes to the project compared to the Approved project, does not include development of new parks and would not require development of new parks. No subsequent analysis is needed.

Conclusion

Overall, the Proposed Project would be consistent with the project analyzed in the 2005 ND. The ND concluded that Approved Project implementation would not impact recreation facilities. As detailed above and consistent with the Approved Project, the Proposed Project would implement infrastructure improvements and would not increase demand for recreation. Proposed project development would not create a new significant impact or substantial increase in the severity of previously identified effects. In regard to Section 15162 of the State CEQA Guidelines, the Proposed Project (1) would not propose substantial changes; (2) would not have circumstantial changes under which the project is undertaken; and (3) would bring about no new information of substantial importance that would (a) create new significant impacts, (b) increase the severity of previously examined effects, (c) determine that mitigation measures or alternatives previously found not to be feasible would, in fact, be feasible, or (d) introduce mitigation measures that are considerably different from those analyzed in the previous documents. For these reasons, there are no major revisions required to the recreation analysis provided in the ND.

3.17 TRANSPORTATION/TRAFFIC

3.17.1 SUMMARY OF PREVIOUS ENVIRONMENTAL ANALYSIS

The ND determined that Approved Project construction would cause a short-term traffic increase on area roadways and that the increase would be a less than significant traffic. The ND found that development would not affect air traffic patterns. Development was found to have no impact on hazards due to design features and no impact on emergency access. The ND concluded that no impact to alternative transportation would occur.

Previously Approved Measures

As all impacts were determined to be less than significant, no mitigation measures were required for the 2005 design; however, the following mitigation measures were included in the analysis in connection with the 2005 ND; was applicable to the Approved Project; and would also be applicable to the proposed Project. The ND identified no impact or less than significant impacts for all transportation/traffic impacts, did not identify significant impacts, and did not state that mitigation measures were required to reduce impacts to less than significant.

- **MM TRANS-1** Advance notification of all street and/or lane closures and detours to all emergency service agencies.
- MM TRANS-2 Clear delineations and barricades to designate through traffic lanes.
- **MM TRANS-3** Compliance with all applicable laws and ordinances regarding the transportation routes for the haul of material.

3.17.2 PROJECT ENVIRONMENTAL REVIEW

The Proposed Project includes the following components differing from the Approved Project: installation of safety lights; installation of a tank-mounted blower with ducting connected to the tank headspace; relocation of two 5,000-gallon temporary storage tanks to the northwest corner of the Project site from another site several miles away; removal of standing remnants of three burned trees from the Project site; and replacement of chain link fencing and gates on the site perimeter.

Existing conditions on and next to the site differ from those of 2003 identified in the ND in that several trees onsite and next to the east site boundary burned in 2018; standing remnants of three burned trees have since been removed.

		New Significant Environmental Effect Caused by a Change in the Project or Circumstances	Substantial Increase in the Severity of a Previously Identified Significant Effect Caused by a Change in the Project or Circumstances	New or Substantially More Severe Significant Impacts Shown by New Information	Ability to Substantially Reduce a Significant Effect Shown by New Information but Declined by Proponent
3.17.2	Would the project:				
a.	Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	No	No	No	No
b.	Conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)?	No	No	No	No
C.	Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	No	No	No	No
d.	Result in inadequate emergency access?	No	No	No	No

Would the project:

a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

No Subsequent Analysis Required. Busch Drive is a two-lane roadway. The intersection of Busch Drive and Merritt Drive, located approximately 0.25 mile south of the Project site, is controlled by a cross-street stop on Merritt Drive. The intersection of Busch Drive with Pacific Coast Highway (SR-1), about 0.9 mile south of the Project site, is signalized. Busch Drive intersects Harvester Road about 450 feet south of the Project site; Calpine Drive about 850 feet north of the Project site; and Cuthbert Road approximately 0.2 mile north of the site. The intersections of Busch Drive with Harvester Road and Calpine Drive are controlled by cross-street stops on Harvester Road and Calpine Drive, respectively; while the intersection of Busch Drive and Cuthbert Road is uncontrolled.

Proposed project construction is estimated to involve about 12 construction workers and a total of approximately 50 haul trips for removing demolition debris and transporting building materials to the site. Demolition and construction combined are expected to last for approximately eight months. As discussed previously in Section 3.3, Air Quality, construction would add a very small number of trips to area roadways. This relatively small number of additional trips would not conflict with a plan, policy, or program addressing the circulation system.

Similar to existing conditions with the existing tank located on the Project site, the Proposed Project would require occasional trips associated with maintenance activities, averaging

approximately one round trip per week. Operational traffic would not have any adverse impact on the circulation system.

Proposed project development would not impact transit, pedestrian, or bicycle facilities. There are no sidewalks or bicycle facilities on Busch Drive near the site frontage, and no transit service on Busch Drive.

Changes to the Proposed project relative to the Approved Project would not generate operational trips and would only minimally effect construction trips (for instance, one or two truck round trips for transport of the temporary storage tanks), and thus would not cause conflicts with policies addressing the circulation system. No new or increased impact would occur; no mitigation is required; and no subsequent analysis is needed.

b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

No Subsequent Analysis Required. As discussed previously, construction would generate a small number of daily trips for about eight months' duration, and project operation would generate only occasional trips averaging one round trip per week. Changes to the Proposed project relative to the Approved Project would not generate operational trips and would only minimally effect construction trips. Thus, transportation impacts can be determined to be less than significant without a vehicle miles traveled (VMT) analysis. No new or increased impact would occur; no mitigation is required; and no subsequent analysis is needed.

c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

No Subsequent Analysis Required. The Proposed Project includes replacement of two gates providing access to the site from Busch Drive: one at the northeast corner of the site and one near the southeast corner. The gated would be kept locked during Project operation. As identified in the 2005 ND, the Proposed Project does not involve any design features that are known to constitute safety hazards. Changes to the Proposed project relative to the Approved Project would be onsite and would not involve a hazardous design feature or introduce incompatible uses to area roadways. No new or increased impact would occur; no mitigation is required; and no subsequent analysis is needed.

d) Result in inadequate emergency access?

No Subsequent Analysis Required. The Proposed Project would provide adequate emergency access to the site. The two existing locking gates would be replaced by two new locking gates in similar positions. Project construction traffic would be managed in accordance with the Federal Highway Administration's (FHWA's) *Manual on Uniform Traffic Control Devices* (FHWA 2009) and applicable City of Malibu requirements to limit roadway obstruction and the need for temporary detours (see Project Design Feature TRANS-1 set forth below). Changes to the Proposed project relative to the Approved Project would be onsite and would not affect emergency access to the site or surrounding properties. No new or increased impact would occur; no mitigation is required; and no subsequent analysis is needed.

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The maximum number of pieces of off-road equipment per construction phase used in the air quality analysis is five, in the demolition phase; thus, construction worker commute trips are expected to be no more than 10 round trips per day.

Conclusion

Overall, the Proposed Project would be consistent with the project analyzed in the 2005 ND. The ND concluded that impacts of Approved Project implementation to transportation would be less than significant. As detailed above, changes to the Proposed project relative to the Approved Project would not generate operational trips and would only minimally effect construction trips. Proposed project development would not create a new significant impact or substantial increase in the severity of previously identified effects. In regard to Section 15162 of the State CEQA Guidelines, the Proposed Project (1) would not propose substantial changes; (2) would not have circumstantial changes under which the project is undertaken; and (3) would bring about no new information of substantial importance that would (a) create new significant impacts, (b) increase the severity of previously examined effects, (c) determine that mitigation measures or alternatives previously found not to be feasible would, in fact, be feasible, or (d) introduce mitigation measures that are considerably different from those analyzed in the previous documents. For these reasons, there are no major revisions required to the transportation analysis provided in the ND.

Project Design Feature

The following Project Design Feature would be applicable to the proposed Project. Because this is a design feature of the Proposed Project, it does not constitute new mitigation.

PDF TRANS-1

Construction traffic would be managed in compliance with the Federal Highway Administration's (FHWA's) *Manual on Uniform Traffic Control Devices* (FHWA 2009) and applicable City of Malibu requirements to limit roadway obstruction and the need for temporary detours. During times of heavy truck traffic, a flag person may be stationed at the Project site entrance to ensure the safety of through traffic.

3.18 TRIBAL CULTURAL RESOURCES

3.18.1 SUMMARY OF PREVIOUS ENVIRONMENTAL ANALYSIS

Tribal cultural resources were not analyzed separately in the 2005 ND as the CEQA Guidelines were updated to add a Section on Tribal Cultural Resources in 2016—after AB 52 passed in 2014 (Public Resources Code Sections 21073 et seq.)—requiring tribal consultation respecting impacts to tribal cultural resources and evaluation of such impacts under CEQA. Cultural resources analyzed in the Cultural Resources section of the ND included archaeological resources, which would include tribal cultural resources. No significant impacts to archaeological resources were identified in the 2005 ND. One measure was included in the ND for cultural resources impacts and one project design feature is incorporated into this Addendum.

Previously Approved Measure

As all impacts were determined to be less than significant, no mitigation measures were required for the 2005 design; however, the following mitigation measure was included in the analysis in connection with the 2005 ND for cultural resources; was applicable to the Approved Project; and would also be applicable to the proposed Project. The ND identified no impacts for cultural resource impacts, did not identify significant impacts, and did not state that mitigation measures were required to reduce impacts to less than significant.

MM CULT-1 If any cultural resources, including human remains, are discovered during construction, the contractor shall cease excavation and contact a specialist to examine the Project sites as required by project specifications.

3.18.2 PROJECT ENVIRONMENTAL REVIEW

The Proposed Project includes the following components differing from the Approved Project: installation of safety lights; installation of a tank-mounted blower with ducting connected to the tank headspace; relocation of two 5,000-gallon temporary storage tanks to the northwest corner of the Project site from another site several miles away; and replacement of chain link fencing and gates with 8-foot architectural vehicular access gate with solid panels, 8' on the site perimeter.

Existing conditions on and next to the site differ from those of 2003 identified in the ND in that several trees onsite and next to the east site boundary burned in 2018; standing remnants of three burned trees have since been removed

		New Significant Environmental Effect Caused by a Change in the Project or Circumstances	Substantial Increase in the Severity of a Previously Identified Significant Effect Caused by a Change in the Project or Circumstances	New or Substantially More Severe Significant Impacts Shown by New Information	Ability to Substantially Reduce a Significant Effect Shown by New Information but Declined by Proponent
3.18.2	Would the project:				
a.	Cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC 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 or in a local register of historical resources as defined in PRC Section 50201(k)?	No	No	No	No
	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.	No	No	No	No

Impact Discussion

Would the project:

- 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:
 - 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

No Subsequent Analysis Required. AB 52 requires notification to Native American tribes of projects that have a Notice of Preparation or Notice of Negative Declaration or mitigated negative declaration on or after July 1, 2015; thus, AB 52 is not required because this Addendum is a continuation of an existing CEQA document from 2005.No resource listed on the California Register of Historical Resources was identified on the project site in the Cultural Resources Records Search conducted for this Addendum. The ND did not identify significant cultural resources on or near the project site. This analysis applies to both the Proposed project and the Approved project.

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.

No Subsequent Analysis Required. As stated previously in the analysis for Section 3.17.2.a.i, AB 52 requires notification to Native American tribes of projects requiring public notification on or after July 1, 20. This Addendum does not require notification because it is a continuation of an existing CEQA review to a previously approved ND in 2005; and thus does not require AB 52. The District has not identified resources on or near the project site considered significant pursuant to California Public Resources Code Section 5024.1. Therefore, no impact to tribal cultural resources known to the District to be significant would occur. This analysis applies to both the Proposed project and the Approved project.

Conclusion

Overall, the Proposed Project would be consistent with the project analyzed in the 2005 ND. The ND did not specifically address tribal cultural resources; however, the ND concluded that Approved Project implementation would not impact archaeological resources. As detailed above, the Proposed Project would be located within the same area as the previously Approved Project; therefore, the sensitivity of the site in relation to tribal cultural resources has not changed since the 2005 ND was approved. Proposed project development would not create a new significant impact or substantial increase in the severity of previously identified effects. In regard to Section 15162 of the State CEQA Guidelines, the Proposed Project (1) would not propose substantial changes; (2) would not have circumstantial changes under which the project is undertaken; and (3) would bring about no new information of substantial importance that would (a) create new significant impacts, (b) increase the severity of previously examined effects, (c) determine that mitigation measures or alternatives previously found not to be feasible would, in fact, be feasible, or (d) introduce mitigation measures that are considerably different from those analyzed in the

previous documents. For these reasons, there are no major revisions required to the tribal cultural resources analysis provided in the ND.

Regulatory Requirement

The following regulatory requirement, as described in the Cultural Resources Section of this Addendum, also applies to tribal cultural resources. Because the regulatory requirement is intended to ensure compliance with an existing law or regulation, it does not constitute new mitigation.

RR CULT-1

In accordance with Section 7050.5 of the California Health and Safety Code, if human remains are found during ground-disturbing activities, no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains shall occur until the County Coroner has determined, within two working days of notification of the discovery, the appropriate treatment and disposition of the human remains. The County Coroner shall be notified within 24 hours of the discovery. If the County Coroner determines that the remains are or are believed to be Native American, s/he shall notify the Native American Heritage Commission (NAHC) in Sacramento within 24 hours of the discovery. In accordance with Section 5097.98 of the California Public Resources Code, the NAHC must immediately notify those persons it believes to be the most likely descended from the deceased Native American. The descendants shall complete their inspection within 48 hours of being granted access to the site by the property owner. The property owner would then determine, in consultation with a designated Native American representative, the final disposition of the human remains (14 California Code of Regulations §15064.5[e]). The District shall comply with these requirements.

3.19 UTILITIES

3.19.1 SUMMARY OF PREVIOUS ENVIRONMENTAL ANALYSIS

The 2005 ND concluded that Approved Project development would not impact wastewater treatment requirements; wastewater treatment or water treatment capacity; water supplies; or solid waste disposal capacity. The Approved Project included installation of a short section of 24-inch-diameter drain pipe for onsite drainage. The proposed drain pipe was found not to cause any significant impact.

3.19.2 PROJECT ENVIRONMENTAL REVIEW

The Proposed Project includes the following components differing from the Approved Project: installation of safety lights; installation of a tank-mounted blower with ducting connected to the tank headspace; relocation of two 5,000-gallon temporary storage tanks to the northwest corner of the Project site from another site several miles away; and replacement of chain link fencing and gates with 8 foot architectural vehicular access gate with solid panels.

Existing conditions on and next to the site differ from those of 2003 identified in the ND in that several trees onsite and next to the east site boundary burned in 2018; standing remnants of three burned trees have since been removed.

		New Significant Environmental Effect Caused by a Change in the Project or Circumstances	Substantial Increase in the Severity of a Previously Identified Significant Effect Caused by a Change in the Project or Circumstances	New or Substantially More Severe Significant Impacts Shown by New Information	Ability to Substantially Reduce a Significant Effect Shown by New Information but Declined by Proponent
3.19.2	Would the project:				
a.	Require or result in the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	No	No	No	No
b.	Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	No	No	No	No
C.	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?	No	No	No	No
d.	Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	No	No	No	No
e.	Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	No	No	No	No

Impact Discussion

Would the project:

a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

Water Facilities

No Subsequent Analysis Required. Proposed project development would not require the District to obtain additional water supplies. The proposed tank is larger than the existing tank by 85,000 gallons or about 28 percent compared to the existing tank. The proposed increase in District storage capacity would not require additional supplies or impact water demands or require construction of new water treatment facilities; rather, it would create additional storage for water supplies. Changes to the Proposed project compared to the Approved project would not affect

water supplies or demands or require construction of new water treatment facilities. No new or increased impact would occur; no mitigation is required; and no subsequent analysis is needed.

Wastewater Treatment Facilities

No Subsequent Analysis Required. Proposed Project development would not generate wastewater and would not impact wastewater treatment capacity. No new or increased impact would occur; no mitigation is required; and no subsequent analysis is needed.

Storm Drainage Facilities

No Subsequent Analysis Required. The Proposed Project includes installation of a proposed 24-inch-diameter drain pipe for onsite drainage, the construction of which would be confined to the defined Project footprint. The proposed drain pipe would not adversely affect storm drainage capacity offsite. Changes to the Proposed project compared to the Approved project would not increase runoff from the Project site and would not require installation of new or expanded offsite storm drainage facilities. No new or increased impact would occur; no mitigation is required; and no subsequent analysis is needed.

Electric Power Facilities

No Subsequent Analysis Required. Southern California Edison (SCE) provides electricity to the Project site. SCE's service area spans much of southern California from Orange and Riverside counties on the south to Santa Barbara County on the west to Mono County on the north (CEC 2015). Total electricity consumption in SCE's service area was 106,080 gigawatt-hours (GWh) in 2015 and is forecasted to increase to 120,780 GWh in 2028 for the mid-demand scenario (CEC 2018); one GWH is equivalent to one million kilowatt-hours. Proposed project construction and operation would use small amounts of electricity. Most electrical equipment used in project construction would be powered by portable generators. Electricity use during project operation would consist of a tank-mounted blower; lights; and the pump on the inlet pipe. The blower and safety lights are changes to the Proposed project compared to the Approved project. The blower and safety lights would not use substantial amounts of electricity; for instance, the blower would operate for two hours at dusk. Project development would not require relocation or construction of new or expanded electric facilities. No new or increased impact would occur; no mitigation is required; and no subsequent analysis is needed.

Natural Gas Facilities

No Subsequent Analysis Required. The project does not propose use of natural gas, and project development would not require construction of new or expanded natural gas facilities. No subsequent analysis is needed.

b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

No Subsequent Analysis Required. The project would involve construction of a new, replacement water tank and would not result in an increase demand for water supply. No subsequent analysis is needed.

c) 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?

No Subsequent Analysis Required. The project would involve construction of a new, replacement water tank and would not result in an increase in wastewater generation, nor would the project create a need for wastewater treatment. No subsequent analysis is needed.

d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

No Subsequent Analysis Required. Demolition, site grading, and construction would generate construction and demolition debris. Project operation would generate minimal amounts of solid waste. In 2018 about 96 percent of the solid waste landfilled from Malibu was disposed of at three landfills: the Calabasas Landfill near the City of Calabasas; the Simi Valley Landfill and Recycling Center near the City of Simi Valley in Ventura County; and Sunshine Canyon City/County Landfill in the Community of Sylmar in the City of Los Angeles. The three landfills combined have permitted disposal capacities of 24,850 tons per day (tpd); actual disposal amounts of 11,562 tpd; and residual disposal capacities of 13,288 tpd (CalRecycle 2019a; CalRecycle 2019b). There is sufficient solid waste processing and disposal capacity in the region for project-generated solid waste. No new or increased impact would occur; no mitigation is required; and no subsequent analysis is needed.

e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

No Subsequent Analysis Required. At least 65 percent of nonhazardous construction and demolition debris would be recycled and/or salvaged for reuse, in accordance with 2016 California Green Building Standards Code (CALGreen; Title 24, California Code of Regulations, Part 11), Section 5.408. Construction waste disposal would conform with state and local standards. No subsequent analysis is needed.

Conclusion

Overall, the Proposed Project would be consistent with the project analyzed in the 2005 ND. The ND concluded that Approved Project implementation would not impact utilities and service systems. As detailed above, the Proposed Project would implement the same type of infrastructure improvements as the Approved Project; therefore, Proposed Project development would not create a new significant impact or substantial increase in the severity of previously identified effects. In regard to Section 15162 of the State CEQA Guidelines, the Proposed Project (1) would not propose substantial changes; (2) would not have circumstantial changes under which the project is undertaken; and (3) would bring about no new information of substantial importance that would (a) create new significant impacts, (b) increase the severity of previously examined effects, (c) determine that mitigation measures or alternatives previously found not to be feasible would, in fact, be feasible, or (d) introduce mitigation measures that are considerably different from those analyzed in the previous documents. For these reasons, there are no major revisions required to the utilities and service systems analysis provided in the ND.

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Actual daily disposal amounts are estimated based on annual disposal amounts based on operation 300 days per year; that is, six days per week less certain holidays.

3.20 WILDFIRE

3.20.1 SUMMARY OF PREVIOUS ENVIRONMENTAL ANALYSIS

The ND concluded that Approved Project development would not expose people or structures to wildland fire hazards. The ND analyzed wildfire hazards in the Hazards and Hazardous Materials section; as Wildfire was added as a separate CEQA topical section in 2018.

Previously Approved Measures

The following mitigation measures were included in the analysis in connection with the 2005 ND; are incorporated into the Transportation Section of this Addendum; and would also be applicable to the proposed Project respecting wildfire impacts. The ND identified no impacts for wildfire impacts, did not identify significant impacts, and did not state that mitigation measures were required to reduce impacts to less than significant.

MM TRANS-1 Advance notification of all street and/or lane closures and detours to all emergency service agencies.

MM TRANS-2 Clear delineations and barricades to designate through traffic lanes.

3.20.2 PROJECT ENVIRONMENTAL REVIEW

The Proposed Project includes the following components differing from the Approved Project: installation of safety lights; installation of a tank-mounted blower with ducting connected to the tank headspace; relocation of two 5,000-gallon temporary storage tanks to the northwest corner of the Project site from another site several miles away and replacement of chain link fencing and gates with an 8 foot architectural vehicular access gate with solid panels.

Existing conditions on and next to the site differ from those of 2003 identified in the ND in that several trees onsite and next to the east site boundary burned in 2018; standing remnants of three burned trees have since been removed.

		New Significant Environmental Effect Caused by a Change in the Project or Circumstances	Substantial Increase in the Severity of a Previously Identified Significant Effect Caused by a Change in the Project or Circumstances	New or Substantially More Severe Significant Impacts Shown by New Information	Ability to Substantially Reduce a Significant Effect Shown by New Information but Declined by Proponent
3.20.2	Would the project:				_
a.	Substantially impair an adopted emergency response plan or emergency evacuation plan?	No	No	No	No
b.	Due to slope, prevailing winds, and other factors, exacerbate wildfire risks of, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	No	No	No	No
C.	Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts on the environment?	No	No	No	No
d.	Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	No	No	No	No

Impact Discussion

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:

a) Substantially impair an adopted emergency response plan or emergency evacuation plan?

No Subsequent Analysis Required. Proposed project development would not impair implementation of an emergency response plan; development would have a slight favorable impact on water storage available for fire flow and would have a favorable impact on the condition of a component tank in the District's water system. Proposed project development would not interfere with emergency access to the Project site and surrounding areas after implementation of Mitigation Measures TRANS-1 and TRANS-2 set forth in the 2005 ND and incorporated in this Addendum; and Project Design Feature TRANS-1 incorporated into this Addendum. Changes to the Project, compared to the Approved Project, would not affect implementation of an emergency response plan. Proposed project implementation would have slight favorable impact on water storage capacity for fire flow in the Project site environs, and thus would have a slight favorable impact on emergency response capability. No new or increased adverse impact would occur; no mitigation is required, and no subsequent analysis is needed.

b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

No Subsequent Analysis Required. Proposed project development would not exacerbate wildfire risks. At project completion the Project site would be developed with a water tank and asphalt pavement, much as in existing conditions. Project development would not add wildfire fuel to the site and would not increase wildfire risks. Project components changed compared to the Approved Project would be constructed of nonflammable materials, consistent with the Approved project. No new or increased adverse impact would occur; no mitigation is required, and no subsequent analysis is needed.

c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

No Subsequent Analysis Required. Proposed project development would involve replacement of inlet and outlet pipes onsite and connecting to water mains in Busch Drive next to the Project site; and a parkway drain conveying overflow from the tank to Busch Drive. Installation of such infrastructure would not exacerbate fire risks. Changes to the Proposed project compared to the Approved project would not exacerbate fire risk (such as by adding fuel or ignition sources to the site). No new or increased adverse impact would occur; no mitigation is required, and no subsequent analysis is needed.

d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

No Subsequent Analysis Required. Development of the Proposed Project would not cause flood hazards. The Project site at project completion would consist of a tank and pavement, similar to existing conditions, and development would not increase runoff rate or volume from the site. Project development would include installation of a parkway drain and a short section of 24-inch drain pipe. Changes to the Proposed project compared to the Approved project would not increase wildfire risks; and thus would not increase hazards subsequent to wildfire such as flooding or slope instability. No new or increased adverse impact would occur; no mitigation is required, and no subsequent analysis is needed.

Conclusion

Overall, the Proposed Project would be consistent with the project analyzed in the 2005 ND. As detailed above, the Proposed Project would occur on the same general site as the Approved Project and would be subject to the same hazards as previously identified. Proposed project development would not create a new significant impact or substantial increase in the severity of previously identified effects. In regard to Section 15162 of the State CEQA Guidelines, the Proposed Project (1) would not propose substantial changes; (2) would not have circumstantial changes under which the project is undertaken; and (3) would bring about no new information of substantial importance that would (a) create new significant impacts, (b) increase the severity of previously examined effects, (c) determine that mitigation measures or alternatives previously found not to be feasible would, in fact, be feasible, or (d) introduce mitigation measures that are considerably different from those analyzed in the previous documents. For these reasons, there are no major revisions required to the wildfire analysis provided in the ND.

Project Design Feature

The following Project Design Feature, as described in the Transportation Section of this Addendum, also applies to wildfire impacts regarding emergency evacuation plans. Because this is a design feature of the Proposed Project, it does not constitute new mitigation.

PDF TRANS-1

Construction traffic would be managed in compliance with the Federal Highway Administration's (FHWA's) *Manual on Uniform Traffic Control Devices* (FHWA 2009) and applicable City of Malibu requirements to limit roadway obstruction and the need for temporary detours. During times of heavy truck traffic, a flag person may be stationed at the Project site entrance to ensure the safety of through traffic.

3.21 MANDATORY FINDINGS OF SIGNIFICANCE

3.21.1 SUMMARY OF PREVIOUS ENVIRONMENTAL ANALYSIS

The Proposed Project includes the following components differing from the Approved Project: installation of safety lights; installation of a tank-mounted blower with ducting connected to the tank headspace; relocation of two 5,000-gallon temporary storage tanks to the northwest corner of the Project site from another site several miles away; and replacement of chain link fencing and gates with an 8 foot architectural vehicular access gate with solid panels

Existing conditions on and next to the site differ from those of 2003 identified in the ND in that several trees onsite and next to the east site boundary burned in 2018; standing remnants of three burned trees have since been removed.

3.21.2 PROJECT ENVIRONMENTAL REVIEW

		New Significant Environmental Effect Caused by a Change in the Project or Circumstances	Substantial Increase in the Severity of a Previously Identified Significant Effect Caused by a Change in the Project or Circumstances	New or Substantially More Severe Significant Impacts Shown by New Information	Ability to Substantially Reduce a Significant Effect Shown by New Information but Declined by Proponent
3.21.2	Would the project:				_
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?	No	No	No	No
b.	Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental efforts 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 probably future projects)?	No	No	No	No
C.	Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	No	No	No	No

Impact Discussion

Does the Project:

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?

No Subsequent Analysis Required. Based on findings in this environmental review, the Proposed Project does not have the potential to degrade the quality of the environment, substantially reduce habitat of a fish and wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or eliminate important examples of the major periods of California history or prehistory as analyzed in the 2005 ND. Therefore, the impact of the Proposed Project on a plant community is not expected to cause

an adverse impact to the environment. Changes to the Proposed project compared to the Approved project would not cause substantial adverse effects to the environment or to biological or cultural resources, as substantiated throughout Section 3 of this Addendum. No new or increased adverse impact would occur; no mitigation is required, and no subsequent analysis is needed.

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental efforts 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 probably future projects)?

The purpose of the Proposed Project is to replace the aging water tank and to maintain current water service for the residents. The Proposed Project is not part of a series of projects at Lower Busch Tank. The City of Malibu Planning Department website does not list Proposed Projects within 0.5 mile of the Proposed Project site (Malibu 2020). Water Works District 29 does not list Priority Projects near enough to the Proposed Project site such that impacts of those projects would combine with impacts of the Proposed Project to cause significant cumulative impacts. The nearest District priority project to the Proposed Project site is a Creek Crossing Project near the intersection of Bonsall Drive and SR-1 approximately 0.9 mile south of the Proposed Project site (WWD29 2020). No related projects are identified in this Addendum, and cumulative impacts would be less than significant. This finding is consistent with the ND. Changes to the Proposed project compared to the Approved project would not result in cumulatively considerable impacts. No new or increased adverse impact would occur; no mitigation is required, and no subsequent analysis is needed. Proposed Project

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

No Subsequent Analysis Required. The Proposed Project would not have a direct or indirect detrimental environmental impact on human beings, either directly or indirectly, consistent with the finding of the 2005 ND. Changes to the Proposed project compared to the Approved project would not cause significant effects on human beings, as substantiated throughout Section 3 of this Addendum. No subsequent analysis is needed.

Conclusion

Overall, the Proposed Project would be consistent with the project analyzed in the 2005 ND. As detailed above, the Proposed Project would occur on the same general site as the Approved Project and would be subject to the same environmental effects as previously identified. Proposed project development would not create a new significant impact or substantial increase in the severity of previously identified effects. In regard to Section 15162 of the State CEQA Guidelines, the Proposed Project (1) would not propose substantial changes; (2) would not have circumstantial changes under which the project is undertaken; and (3) would bring about no new information of substantial importance that would (a) create new significant impacts, (b) increase the severity of previously examined effects, (c) determine that mitigation measures or alternatives previously found not to be feasible would, in fact, be feasible, or (d) introduce mitigation measures that are considerably different from those analyzed in the previous documents. For these reasons, there are no major revisions required to the mandatory findings of significance provided in the ND.

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SECTION 4.0 SUMMARY OF FINDINGS

An Addendum to an EIR is the appropriate tool to evaluate the environmental effects associated with minor modifications to previously approved projects. If the lead agency finds that pursuant to State CEQA Guidelines Section 15162 no new effects could occur or new mitigation measures would be required, the lead agency (District) can prepare an addendum and no new environmental document would be required.

According to State CEQA Guidelines Section 15164(a), "the lead agency or a responsible agency shall prepare an addendum to a previously certified EIR if some changes or additions are necessary but none of the conditions described in Section 15162 calling for preparation of a subsequent EIR have occurred." An addendum may be prepared if only minor technical changes or additions are necessary. A brief explanation of the decision not to prepare a subsequent EIR must also be provided in the addendum, findings, or the public record. Pursuant to Section 15162 of the State CEQA Guidelines, no subsequent EIR may be required for the project unless the County determines, on the basis of substantial evidence, that one or more of the following conditions are met:

- (a) When an EIR has been certified or a negative declaration adopted for a project, no subsequent EIR shall be prepared for that project unless the lead agency determines, on the basis of substantial evidence in the light of the whole record, one or more of the following:
 - Substantial changes are proposed in the project which will require major revisions
 of the previous EIR or negative declaration due to the involvement of new
 significant environmental effects or a substantial increase in the severity of
 previously identified significant effects;
 - 2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or
 - 3) New information of substantial importance which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following:
 - (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration;
 - (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR;
 - (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measures or alternative; or
 - (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

As demonstrated in this Addendum, the District, as the Lead Agency, has determined that pursuant to State CEQA Guidelines Section 15162, the proposed Lower Busch Tank replacement would not cause new significant impacts, nor would it substantially increase the severity of impacts evaluated and determined in the 2005 ND. Because the Proposed Project would not meet any of the conditions identified in Section 15162 of the State CEQA Guidelines requiring preparation of a subsequent or supplemental EIR, an Addendum to the ND is the appropriate document type for the Proposed Project and no new environmental document would be required.

As all impacts were determined to be less than significant, and no mitigation measures were required in the 2005 ND. While the adoption of mitigation measures is not required if significant impacts are not identified, it is not prohibited for a project proponent to voluntarily agree to measures to further minimize a less than significant environmental effect, thus, although not required to reduce impacts to less than significant, the 2005 ND and Addendum includes measures, project design features, and regulatory requirements to ensure compliance with applicable regulatory requirements and standard construction practices.

SECTION 5.0 REPORT PREPARERS

5.1 COUNTY OF LOS ANGELES WATERWORKS

Senior Civil Engineer	Alma F. Quintana
Civil Engineer	
Associate Civil Engineer	Philip Siongco
Senior Civil Engineering Assistant	
Principal Deputy County Counsel	
Deputy County Counsel	

5.2 **CONSULTANT**

Psomas

Principal	Jim Hunter
Senior Project Manager	Jennifer Marks
Senior Word Processor	Sheryl Kristal

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APPENDIX A AIR QUALITY AND GREENHOUSE GAS ANALYSIS

CalEEMod Version: CalEEMod.2016.3.2 Page 1 of 31 Date: 9/30/2019 10:56 AM

Lower Busch Tanks - Los Angeles-South Coast County, Annual

Lower Busch Tanks

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	10.00	1000sqft	0.23	10,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	8			Operational Year	2021
Utility Company	Southern California Edisor	n			
CO2 Intensity (lb/MWhr)	702.44	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Lower Busch Tanks - Los Angeles-South Coast County, Annual

Date: 9/30/2019 10:56 AM

Project Characteristics -

Land Use -

Construction Phase - Project construction schedule

Off-road Equipment - Estimated by developer

Demolition -

Grading -

Construction Off-road Equipment Mitigation - pdf

Trips and VMT - Based on data request

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3

Lower Busch Tanks - Los Angeles-South Coast County, Annual

Page 3 of 31

tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	10.00	16.00
tblConstructionPhase	NumDays	2.00	22.00
tblConstructionPhase	NumDays	100.00	103.00
tblConstructionPhase	NumDays	5.00	10.00
tblConstructionPhase	NumDays	5.00	10.00
tblGrading	MaterialExported	0.00	400.00
tblGrading	MaterialImported	0.00	600.00
tblOffRoadEquipment	HorsePower	158.00	97.00
tblOffRoadEquipment	LoadFactor	0.38	0.37
tblOffRoadEquipment	LoadFactor	0.29	0.29
tblOffRoadEquipment	OffRoadEquipmentType		Cranes
tblOffRoadEquipment	OffRoadEquipmentType		Welders
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	UsageHours	4.00	8.00
tblTripsAndVMT	HaulingTripLength	20.00	25.00
tblTripsAndVMT	HaulingTripLength	20.00	25.00
tblTripsAndVMT	HaulingTripNumber	29.00	42.00

Lower Busch Tanks - Los Angeles-South Coast County, Annual

tblTripsAndVMT	Haulin	gTripNumber	125.00	,	168.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr									MT/yr						
2021	0.0921	0.7880	0.7045	1.3200e- 003	0.0217	0.0369	0.0586	7.7700e- 003	0.0347	0.0424	0.0000	113.9334	113.9334	0.0268	0.0000	114.6034
Maximum	0.0921	0.7880	0.7045	1.3200e- 003	0.0217	0.0369	0.0586	7.7700e- 003	0.0347	0.0424	0.0000	113.9334	113.9334	0.0268	0.0000	114.6034

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr									MT/yr						
2021	0.0714	0.7510	0.7365	1.3200e- 003	0.0147	0.0371	0.0518	4.7000e- 003	0.0363	0.0410	0.0000	113.9333	113.9333	0.0268	0.0000	114.6033
Maximum	0.0714	0.7510	0.7365	1.3200e- 003	0.0147	0.0371	0.0518	4.7000e- 003	0.0363	0.0410	0.0000	113.9333	113.9333	0.0268	0.0000	114.6033

Page 5 of 31

Lower Busch Tanks - Los Angeles-South Coast County, Annual

Date: 9/30/2019 10:56 AM

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	22.42	4.69	-4.54	0.00	32.21	-0.65	11.57	39.51	-4.61	3.46	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
6	12-30-2020	3-29-2021	0.2011	0.1722
7	3-30-2021	6-29-2021	0.2662	0.2540
8	6-30-2021	9-29-2021	0.3668	0.3578
		Highest	0.3668	0.3578

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	⁷ /yr		
Area	8.0000e- 004	0.0000	1.3000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.5000e- 004	2.5000e- 004	0.0000	0.0000	2.6000e- 004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste			1 1 1			0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water			1 1 1			0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	8.0000e- 004	0.0000	1.3000e- 004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	2.5000e- 004	2.5000e- 004	0.0000	0.0000	2.6000e- 004

CalEEMod Version: CalEEMod.2016.3.2 Page 6 of 31 Date: 9/30/2019 10:56 AM

Lower Busch Tanks - Los Angeles-South Coast County, Annual

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	-/yr		
Area	8.0000e- 004	0.0000	1.3000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.5000e- 004	2.5000e- 004	0.0000	0.0000	2.6000e- 004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	8.0000e- 004	0.0000	1.3000e- 004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	2.5000e- 004	2.5000e- 004	0.0000	0.0000	2.6000e- 004

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	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

3.0 Construction Detail

Construction Phase

Lower Busch Tanks - Los Angeles-South Coast County, Annual

Page 7 of 31

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	2/11/2021	3/4/2021	5	16	
2	Grading	Grading	3/5/2021	4/5/2021	5	22	
3	Trenching	Trenching	4/7/2021	5/6/2021	5	22	
4	Building Construction	Building Construction	5/10/2021	9/29/2021	5	103	
5	Paving	Paving	10/1/2021	10/14/2021	5	10	
6	Architectural Coating	Architectural Coating	10/18/2021	10/29/2021	5	10	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0.23

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 600 (Architectural Coating – sqft)

OffRoad Equipment

Lower Busch Tanks - Los Angeles-South Coast County, Annual

Page 8 of 31

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	1	8.00	158	0.38
Demolition	Other Construction Equipment	1	8.00	172	0.42
Demolition	Rubber Tired Dozers	0	1.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Concrete/Industrial Saws	0	8.00	81	0.73
Grading	Excavators	1	8.00	158	0.38
Grading	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Trenching	Concrete/Industrial Saws	0	8.00	81	0.73
Trenching	Excavators	1	6.00	97	0.37
Trenching	Graders	0	8.00	187	0.41
Trenching	Rubber Tired Dozers	0	1.00	247	0.40
Trenching	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Cranes	0	4.00	231	0.29
Building Construction	Forklifts	0	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Paving	Cement and Mortar Mixers	0	6.00	9	0.56
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Welders	2	8.00	46	0.45

Trips and VMT

Lower Busch Tanks - Los Angeles-South Coast County, Annual

Page 9 of 31

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	42.00	14.70	6.90	25.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	168.00	14.70	6.90	25.00	LD_Mix	HDT_Mix	HHDT
Trenching	2	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	2	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	4	4.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	1.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment Water Exposed Area

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Fugitive Dust	1 1 1 1				3.1500e- 003	0.0000	3.1500e- 003	4.8000e- 004	0.0000	4.8000e- 004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0105	0.0993	0.1151	1.8000e- 004		5.3900e- 003	5.3900e- 003	 	5.0700e- 003	5.0700e- 003	0.0000	15.5508	15.5508	3.8900e- 003	0.0000	15.6480
Total	0.0105	0.0993	0.1151	1.8000e- 004	3.1500e- 003	5.3900e- 003	8.5400e- 003	4.8000e- 004	5.0700e- 003	5.5500e- 003	0.0000	15.5508	15.5508	3.8900e- 003	0.0000	15.6480

CalEEMod Version: CalEEMod.2016.3.2 Page 10 of 31 Date: 9/30/2019 10:56 AM

Lower Busch Tanks - Los Angeles-South Coast County, Annual

3.2 Demolition - 2021

<u>Unmitigated Construction Off-Site</u>

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Hauling	2.1000e- 004	6.7900e- 003	1.6200e- 003	2.0000e- 005	4.5000e- 004	2.0000e- 005	4.7000e- 004	1.2000e- 004	2.0000e- 005	1.4000e- 004	0.0000	1.9495	1.9495	1.3000e- 004	0.0000	1.9528
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.5000e- 004	3.5000e- 004	3.9300e- 003	1.0000e- 005	1.1400e- 003	1.0000e- 005	1.1500e- 003	3.0000e- 004	1.0000e- 005	3.1000e- 004	0.0000	1.0285	1.0285	3.0000e- 005	0.0000	1.0292
Total	6.6000e- 004	7.1400e- 003	5.5500e- 003	3.0000e- 005	1.5900e- 003	3.0000e- 005	1.6200e- 003	4.2000e- 004	3.0000e- 005	4.5000e- 004	0.0000	2.9780	2.9780	1.6000e- 004	0.0000	2.9820

Mitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Fugitive Dust					1.2300e- 003	0.0000	1.2300e- 003	1.9000e- 004	0.0000	1.9000e- 004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.1500e- 003	0.0870	0.1280	1.8000e- 004		5.1500e- 003	5.1500e- 003	1 1 1	5.1500e- 003	5.1500e- 003	0.0000	15.5508	15.5508	3.8900e- 003	0.0000	15.6480
Total	4.1500e- 003	0.0870	0.1280	1.8000e- 004	1.2300e- 003	5.1500e- 003	6.3800e- 003	1.9000e- 004	5.1500e- 003	5.3400e- 003	0.0000	15.5508	15.5508	3.8900e- 003	0.0000	15.6480

CalEEMod Version: CalEEMod.2016.3.2 Page 11 of 31 Date: 9/30/2019 10:56 AM

Lower Busch Tanks - Los Angeles-South Coast County, Annual

3.2 Demolition - 2021

<u>Mitigated Construction Off-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Hauling	2.1000e- 004	6.7900e- 003	1.6200e- 003	2.0000e- 005	4.5000e- 004	2.0000e- 005	4.7000e- 004	1.2000e- 004	2.0000e- 005	1.4000e- 004	0.0000	1.9495	1.9495	1.3000e- 004	0.0000	1.9528
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.5000e- 004	3.5000e- 004	3.9300e- 003	1.0000e- 005	1.1400e- 003	1.0000e- 005	1.1500e- 003	3.0000e- 004	1.0000e- 005	3.1000e- 004	0.0000	1.0285	1.0285	3.0000e- 005	0.0000	1.0292
Total	6.6000e- 004	7.1400e- 003	5.5500e- 003	3.0000e- 005	1.5900e- 003	3.0000e- 005	1.6200e- 003	4.2000e- 004	3.0000e- 005	4.5000e- 004	0.0000	2.9780	2.9780	1.6000e- 004	0.0000	2.9820

3.3 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	⁻ /yr		
Fugitive Dust					8.3400e- 003	0.0000	8.3400e- 003	4.5600e- 003	0.0000	4.5600e- 003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
1	7.0500e- 003	0.0701	0.0788	1.2000e- 004		3.7300e- 003	3.7300e- 003		3.4300e- 003	3.4300e- 003	0.0000	10.5275	10.5275	3.4000e- 003	0.0000	10.6126
Total	7.0500e- 003	0.0701	0.0788	1.2000e- 004	8.3400e- 003	3.7300e- 003	0.0121	4.5600e- 003	3.4300e- 003	7.9900e- 003	0.0000	10.5275	10.5275	3.4000e- 003	0.0000	10.6126

CalEEMod Version: CalEEMod.2016.3.2 Page 12 of 31 Date: 9/30/2019 10:56 AM

Lower Busch Tanks - Los Angeles-South Coast County, Annual

3.3 Grading - 2021

<u>Unmitigated Construction Off-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Hauling	8.5000e- 004	0.0271	6.5000e- 003	8.0000e- 005	1.8000e- 003	9.0000e- 005	1.8900e- 003	5.0000e- 004	8.0000e- 005	5.8000e- 004	0.0000	7.7981	7.7981	5.2000e- 004	0.0000	7.8112
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.7000e- 004	3.7000e- 004	4.1600e- 003	1.0000e- 005	1.2100e- 003	1.0000e- 005	1.2200e- 003	3.2000e- 004	1.0000e- 005	3.3000e- 004	0.0000	1.0878	1.0878	3.0000e- 005	0.0000	1.0886
Total	1.3200e- 003	0.0275	0.0107	9.0000e- 005	3.0100e- 003	1.0000e- 004	3.1100e- 003	8.2000e- 004	9.0000e- 005	9.1000e- 004	0.0000	8.8859	8.8859	5.5000e- 004	0.0000	8.8998

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Fugitive Dust	1 11 11				3.2500e- 003	0.0000	3.2500e- 003	1.7800e- 003	0.0000	1.7800e- 003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9400e- 003	0.0612	0.0880	1.2000e- 004		3.5200e- 003	3.5200e- 003		3.5200e- 003	3.5200e- 003	0.0000	10.5275	10.5275	3.4000e- 003	0.0000	10.6126
Total	2.9400e- 003	0.0612	0.0880	1.2000e- 004	3.2500e- 003	3.5200e- 003	6.7700e- 003	1.7800e- 003	3.5200e- 003	5.3000e- 003	0.0000	10.5275	10.5275	3.4000e- 003	0.0000	10.6126

CalEEMod Version: CalEEMod.2016.3.2 Page 13 of 31 Date: 9/30/2019 10:56 AM

Lower Busch Tanks - Los Angeles-South Coast County, Annual

3.3 Grading - 2021

<u>Mitigated Construction Off-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Hauling	8.5000e- 004	0.0271	6.5000e- 003	8.0000e- 005	1.8000e- 003	9.0000e- 005	1.8900e- 003	5.0000e- 004	8.0000e- 005	5.8000e- 004	0.0000	7.7981	7.7981	5.2000e- 004	0.0000	7.8112
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.7000e- 004	3.7000e- 004	4.1600e- 003	1.0000e- 005	1.2100e- 003	1.0000e- 005	1.2200e- 003	3.2000e- 004	1.0000e- 005	3.3000e- 004	0.0000	1.0878	1.0878	3.0000e- 005	0.0000	1.0886
Total	1.3200e- 003	0.0275	0.0107	9.0000e- 005	3.0100e- 003	1.0000e- 004	3.1100e- 003	8.2000e- 004	9.0000e- 005	9.1000e- 004	0.0000	8.8859	8.8859	5.5000e- 004	0.0000	8.8998

3.4 Trenching - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
On Road	3.5000e- 003	0.0357	0.0431	6.0000e- 005		2.0700e- 003	2.0700e- 003		1.9000e- 003	1.9000e- 003	0.0000	5.2188	5.2188	1.6900e- 003	0.0000	5.2610
Total	3.5000e- 003	0.0357	0.0431	6.0000e- 005		2.0700e- 003	2.0700e- 003		1.9000e- 003	1.9000e- 003	0.0000	5.2188	5.2188	1.6900e- 003	0.0000	5.2610

CalEEMod Version: CalEEMod.2016.3.2 Page 14 of 31 Date: 9/30/2019 10:56 AM

Lower Busch Tanks - Los Angeles-South Coast County, Annual

3.4 Trenching - 2021
Unmitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.7000e- 004	3.7000e- 004	4.1600e- 003	1.0000e- 005	2.2500e- 003	1.0000e- 005	2.2600e- 003	5.8000e- 004	1.0000e- 005	5.9000e- 004	0.0000	1.0878	1.0878	3.0000e- 005	0.0000	1.0886
Total	4.7000e- 004	3.7000e- 004	4.1600e- 003	1.0000e- 005	2.2500e- 003	1.0000e- 005	2.2600e- 003	5.8000e- 004	1.0000e- 005	5.9000e- 004	0.0000	1.0878	1.0878	3.0000e- 005	0.0000	1.0886

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
On Road	1.4600e- 003	0.0334	0.0451	6.0000e- 005		2.3400e- 003	2.3400e- 003		2.3400e- 003	2.3400e- 003	0.0000	5.2188	5.2188	1.6900e- 003	0.0000	5.2610
Total	1.4600e- 003	0.0334	0.0451	6.0000e- 005		2.3400e- 003	2.3400e- 003		2.3400e- 003	2.3400e- 003	0.0000	5.2188	5.2188	1.6900e- 003	0.0000	5.2610

CalEEMod Version: CalEEMod.2016.3.2 Page 15 of 31 Date: 9/30/2019 10:56 AM

Lower Busch Tanks - Los Angeles-South Coast County, Annual

3.4 Trenching - 2021

<u>Mitigated Construction Off-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.7000e- 004	3.7000e- 004	4.1600e- 003	1.0000e- 005	2.2500e- 003	1.0000e- 005	2.2600e- 003	5.8000e- 004	1.0000e- 005	5.9000e- 004	0.0000	1.0878	1.0878	3.0000e- 005	0.0000	1.0886
Total	4.7000e- 004	3.7000e- 004	4.1600e- 003	1.0000e- 005	2.2500e- 003	1.0000e- 005	2.2600e- 003	5.8000e- 004	1.0000e- 005	5.9000e- 004	0.0000	1.0878	1.0878	3.0000e- 005	0.0000	1.0886

3.5 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Off-Road	0.0619	0.5012	0.3949	7.2000e- 004		0.0235	0.0235		0.0222	0.0222	0.0000	59.3780	59.3780	0.0155	0.0000	59.7645
Total	0.0619	0.5012	0.3949	7.2000e- 004		0.0235	0.0235		0.0222	0.0222	0.0000	59.3780	59.3780	0.0155	0.0000	59.7645

CalEEMod Version: CalEEMod.2016.3.2 Page 16 of 31 Date: 9/30/2019 10:56 AM

Lower Busch Tanks - Los Angeles-South Coast County, Annual

3.5 Building Construction - 2021 Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.2000e- 004	0.0102	2.7600e- 003	3.0000e- 005	6.5000e- 004	2.0000e- 005	6.7000e- 004	1.9000e- 004	2.0000e- 005	2.1000e- 004	0.0000	2.5389	2.5389	1.6000e- 004	0.0000	2.5428
Worker	8.9000e- 004	6.9000e- 004	7.7900e- 003	2.0000e- 005	2.2600e- 003	2.0000e- 005	2.2800e- 003	6.0000e- 004	2.0000e- 005	6.2000e- 004	0.0000	2.0372	2.0372	6.0000e- 005	0.0000	2.0387
Total	1.2100e- 003	0.0109	0.0106	5.0000e- 005	2.9100e- 003	4.0000e- 005	2.9500e- 003	7.9000e- 004	4.0000e- 005	8.3000e- 004	0.0000	4.5761	4.5761	2.2000e- 004	0.0000	4.5815

Mitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Off-Road	0.0562	0.4928	0.3991	7.2000e- 004		0.0240	0.0240		0.0232	0.0232	0.0000	59.3780	59.3780	0.0155	0.0000	59.7644
Total	0.0562	0.4928	0.3991	7.2000e- 004		0.0240	0.0240		0.0232	0.0232	0.0000	59.3780	59.3780	0.0155	0.0000	59.7644

CalEEMod Version: CalEEMod.2016.3.2 Page 17 of 31 Date: 9/30/2019 10:56 AM

Lower Busch Tanks - Los Angeles-South Coast County, Annual

3.5 Building Construction - 2021 Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.2000e- 004	0.0102	2.7600e- 003	3.0000e- 005	6.5000e- 004	2.0000e- 005	6.7000e- 004	1.9000e- 004	2.0000e- 005	2.1000e- 004	0.0000	2.5389	2.5389	1.6000e- 004	0.0000	2.5428
Worker	8.9000e- 004	6.9000e- 004	7.7900e- 003	2.0000e- 005	2.2600e- 003	2.0000e- 005	2.2800e- 003	6.0000e- 004	2.0000e- 005	6.2000e- 004	0.0000	2.0372	2.0372	6.0000e- 005	0.0000	2.0387
Total	1.2100e- 003	0.0109	0.0106	5.0000e- 005	2.9100e- 003	4.0000e- 005	2.9500e- 003	7.9000e- 004	4.0000e- 005	8.3000e- 004	0.0000	4.5761	4.5761	2.2000e- 004	0.0000	4.5815

3.6 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
1	2.7300e- 003	0.0281	0.0308	5.0000e- 005		1.5500e- 003	1.5500e- 003		1.4300e- 003	1.4300e- 003	0.0000	4.0088	4.0088	1.3000e- 003	0.0000	4.0412
Paving	0.0000		 			0.0000	0.0000	 	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	2.7300e- 003	0.0281	0.0308	5.0000e- 005		1.5500e- 003	1.5500e- 003		1.4300e- 003	1.4300e- 003	0.0000	4.0088	4.0088	1.3000e- 003	0.0000	4.0412

CalEEMod Version: CalEEMod.2016.3.2 Page 18 of 31 Date: 9/30/2019 10:56 AM

Lower Busch Tanks - Los Angeles-South Coast County, Annual

3.6 Paving - 2021

<u>Unmitigated Construction Off-Site</u>

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category		ton	MT/yr													
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7000e- 004	1.3000e- 004	1.5100e- 003	0.0000	4.4000e- 004	0.0000	4.4000e- 004	1.2000e- 004	0.0000	1.2000e- 004	0.0000	0.3956	0.3956	1.0000e- 005	0.0000	0.3959
Total	1.7000e- 004	1.3000e- 004	1.5100e- 003	0.0000	4.4000e- 004	0.0000	4.4000e- 004	1.2000e- 004	0.0000	1.2000e- 004	0.0000	0.3956	0.3956	1.0000e- 005	0.0000	0.3959

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
- Cirricad	1.1200e- 003	0.0238	0.0345	5.0000e- 005		1.4500e- 003	1.4500e- 003		1.4500e- 003	1.4500e- 003	0.0000	4.0088	4.0088	1.3000e- 003	0.0000	4.0412
Paving	0.0000					0.0000	0.0000	1 1 1 1 1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	1.1200e- 003	0.0238	0.0345	5.0000e- 005		1.4500e- 003	1.4500e- 003		1.4500e- 003	1.4500e- 003	0.0000	4.0088	4.0088	1.3000e- 003	0.0000	4.0412

CalEEMod Version: CalEEMod.2016.3.2 Page 19 of 31 Date: 9/30/2019 10:56 AM

Lower Busch Tanks - Los Angeles-South Coast County, Annual

3.6 Paving - 2021

<u>Mitigated Construction Off-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e				
Category		tons/yr											MT/yr							
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000				
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000				
Worker	1.7000e- 004	1.3000e- 004	1.5100e- 003	0.0000	4.4000e- 004	0.0000	4.4000e- 004	1.2000e- 004	0.0000	1.2000e- 004	0.0000	0.3956	0.3956	1.0000e- 005	0.0000	0.3959				
Total	1.7000e- 004	1.3000e- 004	1.5100e- 003	0.0000	4.4000e- 004	0.0000	4.4000e- 004	1.2000e- 004	0.0000	1.2000e- 004	0.0000	0.3956	0.3956	1.0000e- 005	0.0000	0.3959				

3.7 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Archit. Coating	1.3900e- 003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0900e- 003	7.6300e- 003	9.0900e- 003	1.0000e- 005		4.7000e- 004	4.7000e- 004	1 1 1 1 1	4.7000e- 004	4.7000e- 004	0.0000	1.2766	1.2766	9.0000e- 005	0.0000	1.2788
Total	2.4800e- 003	7.6300e- 003	9.0900e- 003	1.0000e- 005		4.7000e- 004	4.7000e- 004		4.7000e- 004	4.7000e- 004	0.0000	1.2766	1.2766	9.0000e- 005	0.0000	1.2788

CalEEMod Version: CalEEMod.2016.3.2 Page 20 of 31 Date: 9/30/2019 10:56 AM

Lower Busch Tanks - Los Angeles-South Coast County, Annual

3.7 Architectural Coating - 2021 Unmitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e				
Category		tons/yr											MT/yr							
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000				
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000				
Worker	2.0000e- 005	2.0000e- 005	1.9000e- 004	0.0000	5.0000e- 005	0.0000	6.0000e- 005	1.0000e- 005	0.0000	1.0000e- 005	0.0000	0.0495	0.0495	0.0000	0.0000	0.0495				
Total	2.0000e- 005	2.0000e- 005	1.9000e- 004	0.0000	5.0000e- 005	0.0000	6.0000e- 005	1.0000e- 005	0.0000	1.0000e- 005	0.0000	0.0495	0.0495	0.0000	0.0000	0.0495				

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
/ tronit: Coating	1.3900e- 003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.0000e- 004	6.7800e- 003	9.1600e- 003	1.0000e- 005		4.8000e- 004	4.8000e- 004		4.8000e- 004	4.8000e- 004	0.0000	1.2766	1.2766	9.0000e- 005	0.0000	1.2788
Total	1.6900e- 003	6.7800e- 003	9.1600e- 003	1.0000e- 005		4.8000e- 004	4.8000e- 004		4.8000e- 004	4.8000e- 004	0.0000	1.2766	1.2766	9.0000e- 005	0.0000	1.2788

CalEEMod Version: CalEEMod.2016.3.2 Page 21 of 31 Date: 9/30/2019 10:56 AM

Lower Busch Tanks - Los Angeles-South Coast County, Annual

3.7 Architectural Coating - 2021 Mitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e- 005	2.0000e- 005	1.9000e- 004	0.0000	5.0000e- 005	0.0000	6.0000e- 005	1.0000e- 005	0.0000	1.0000e- 005	0.0000	0.0495	0.0495	0.0000	0.0000	0.0495
Total	2.0000e- 005	2.0000e- 005	1.9000e- 004	0.0000	5.0000e- 005	0.0000	6.0000e- 005	1.0000e- 005	0.0000	1.0000e- 005	0.0000	0.0495	0.0495	0.0000	0.0000	0.0495

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Lower Busch Tanks - Los Angeles-South Coast County, Annual

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Ave	rage Daily Trip Ra	ate	Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

		Miles			Trip %			Trip Purpos	e %
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Non-Asphalt Surfaces	0.547192	0.045177	0.202743	0.121510	0.016147	0.006143	0.019743	0.029945	0.002479	0.002270	0.005078	0.000682	0.000891

5.0 Energy Detail

Historical Energy Use: N

CalEEMod Version: CalEEMod.2016.3.2 Page 23 of 31 Date: 9/30/2019 10:56 AM

Lower Busch Tanks - Los Angeles-South Coast County, Annual

5.1 Mitigation Measures Energy

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated	1					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas <u>Unmitigated</u>

	NaturalGa s Use	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr					ton	s/yr							MT	/yr		
Other Non- Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CalEEMod Version: CalEEMod.2016.3.2 Page 24 of 31 Date: 9/30/2019 10:56 AM

Lower Busch Tanks - Los Angeles-South Coast County, Annual

5.2 Energy by Land Use - NaturalGas Mitigated

	NaturalGa s Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr					ton	s/yr							MT	/yr		
Other Non- Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.3 Energy by Land Use - Electricity <u>Unmitigated</u>

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr		МТ	/yr	
Other Non- Asphalt Surfaces		0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Lower Busch Tanks - Los Angeles-South Coast County, Annual

5.3 Energy by Land Use - Electricity Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr		МТ	/yr	
Other Non- Asphalt Surfaces	0		0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Mitigated	8.0000e- 004	0.0000	1.3000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.5000e- 004	2.5000e- 004	0.0000	0.0000	2.6000e- 004
Unmitigated	8.0000e- 004	0.0000	1.3000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.5000e- 004	2.5000e- 004	0.0000	0.0000	2.6000e- 004

CalEEMod Version: CalEEMod.2016.3.2 Page 26 of 31 Date: 9/30/2019 10:56 AM

Lower Busch Tanks - Los Angeles-South Coast County, Annual

6.2 Area by SubCategory Unmitigated

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory					ton	s/yr							МТ	/yr		
Conting	1.4000e- 004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
D 1 1	6.5000e- 004		i	 		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e- 005	0.0000	1.3000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.5000e- 004	2.5000e- 004	0.0000	0.0000	2.6000e- 004
Total	8.0000e- 004	0.0000	1.3000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.5000e- 004	2.5000e- 004	0.0000	0.0000	2.6000e- 004

Mitigated

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory					ton	s/yr							МТ	/yr		
Architectural Coating	1.4000e- 004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	6.5000e- 004		1 1 1			0.0000	0.0000	1 	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e- 005	0.0000	1.3000e- 004	0.0000		0.0000	0.0000	1 	0.0000	0.0000	0.0000	2.5000e- 004	2.5000e- 004	0.0000	0.0000	2.6000e- 004
Total	8.0000e- 004	0.0000	1.3000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.5000e- 004	2.5000e- 004	0.0000	0.0000	2.6000e- 004

7.0 Water Detail

CalEEMod Version: CalEEMod.2016.3.2 Page 27 of 31 Date: 9/30/2019 10:56 AM

Lower Busch Tanks - Los Angeles-South Coast County, Annual

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category		МТ	√yr	
:		0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use <u>Unmitigated</u>

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal		MT	-/yr	
Other Non- Asphalt Surfaces	0/0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

CalEEMod Version: CalEEMod.2016.3.2 Page 28 of 31 Date: 9/30/2019 10:56 AM

Lower Busch Tanks - Los Angeles-South Coast County, Annual

7.2 Water by Land Use

Mitigated

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal		МТ	-/yr	
Other Non- Asphalt Surfaces	0/0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e			
	MT/yr						
Magatod	0.0000	0.0000	0.0000	0.0000			
Unmitigated	0.0000	0.0000	0.0000	0.0000			

Lower Busch Tanks - Los Angeles-South Coast County, Annual

Date: 9/30/2019 10:56 AM

8.2 Waste by Land Use <u>Unmitigated</u>

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons		МТ	-/yr	
Other Non- Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e	
Land Use	tons	MT/yr				
Other Non- Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000	
Total		0.0000	0.0000	0.0000	0.0000	

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

Lower Busch Tanks - Los Angeles-South Coast County, Annual

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	------------	-------------	-------------	-----------

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number
----------------	--------

11.0 Vegetation

CalEEMod Version: CalEEMod.2016.3.2 Page 1 of 26 Date: 9/30/2019 10:59 AM

Lower Busch Tanks - Los Angeles-South Coast County, Summer

Lower Busch Tanks

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	10.00	1000sqft	0.23	10,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	8			Operational Year	2021
Utility Company	Southern California Edis	on			
CO2 Intensity (lb/MWhr)	702.44	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Lower Busch Tanks - Los Angeles-South Coast County, Summer

Date: 9/30/2019 10:59 AM

Project Characteristics -

Land Use -

Construction Phase - Project construction schedule

Off-road Equipment - Estimated by developer

Demolition -

Grading -

Construction Off-road Equipment Mitigation - pdf

Trips and VMT - Based on data request

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3

Page 3 of 26

Lower Busch Tanks - Los Angeles-South Coast County, Summer

Date: 9/30/2019 10:59 AM

tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	10.00	16.00
tblConstructionPhase	NumDays	2.00	22.00
tblConstructionPhase	NumDays	100.00	103.00
tblConstructionPhase	NumDays	5.00	10.00
tblConstructionPhase	NumDays	5.00	10.00
tblGrading	MaterialExported	0.00	400.00
tblGrading	MaterialImported	0.00	600.00
tblOffRoadEquipment	HorsePower	158.00	97.00
tblOffRoadEquipment	LoadFactor	0.38	0.37
tblOffRoadEquipment	LoadFactor	0.29	0.29
tblOffRoadEquipment	OffRoadEquipmentType		Cranes
tblOffRoadEquipment	OffRoadEquipmentType		Welders
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	UsageHours	4.00	8.00
tblTripsAndVMT	HaulingTripLength	20.00	25.00
tblTripsAndVMT	HaulingTripLength	20.00	25.00
tblTripsAndVMT	HaulingTripNumber	29.00	42.00

Lower Busch Tanks - Los Angeles-South Coast County, Summer

Date: 9/30/2019 10:59 AM

tblTripsAndVMT	HaulingTripN	Number	125.00	168.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year					lb/d	day							lb/d	lay		
2021	1.3968	13.2733	15.1138	0.0262	1.0366	0.6782	1.3839	0.4899	0.6379	0.8098	0.0000	2,561.009 5	2,561.009 5	0.5579	0.0000	2,574.957 6
Maximum	1.3968	13.2733	15.1138	0.0262	1.0366	0.6782	1.3839	0.4899	0.6379	0.8098	0.0000	2,561.009 5	2,561.009 5	0.5579	0.0000	2,574.957 6

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year					lb/d	day							lb/d	lay		
2021	1.1147	11.7290	16.7264	0.0262	0.5742	0.6477	1.0037	0.2371	0.6475	0.7250	0.0000	2,561.009 4	2,561.009 4	0.5579	0.0000	2,574.957 6
Maximum	1.1147	11.7290	16.7264	0.0262	0.5742	0.6477	1.0037	0.2371	0.6475	0.7250	0.0000	2,561.009 4	2,561.009 4	0.5579	0.0000	2,574.957 6

Lower Busch Tanks - Los Angeles-South Coast County, Summer

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	20.20	11.63	-10.67	0.00	44.60	4.50	27.47	51.61	-1.51	10.48	0.00	0.00	0.00	0.00	0.00	0.00

CalEEMod Version: CalEEMod.2016.3.2 Page 6 of 26 Date: 9/30/2019 10:59 AM

Lower Busch Tanks - Los Angeles-South Coast County, Summer

2.2 Overall Operational Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	day		
Area	4.4000e- 003	1.0000e- 005	1.0200e- 003	0.0000		0.0000	0.0000		0.0000	0.0000		2.1900e- 003	2.1900e- 003	1.0000e- 005		2.3300e- 003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	4.4000e- 003	1.0000e- 005	1.0200e- 003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		2.1900e- 003	2.1900e- 003	1.0000e- 005	0.0000	2.3300e- 003

Mitigated Operational

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	day		
Area	4.4000e- 003	1.0000e- 005	1.0200e- 003	0.0000		0.0000	0.0000		0.0000	0.0000		2.1900e- 003	2.1900e- 003	1.0000e- 005		2.3300e- 003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	4.4000e- 003	1.0000e- 005	1.0200e- 003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		2.1900e- 003	2.1900e- 003	1.0000e- 005	0.0000	2.3300e- 003

Lower Busch Tanks - Los Angeles-South Coast County, Summer

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	2/11/2021	3/4/2021	5	16	
2	Grading	Grading	3/5/2021	4/5/2021	5	22	
3	Trenching	Trenching	4/7/2021	5/6/2021	5	22	
4	Building Construction	Building Construction	5/10/2021	9/29/2021	5	103	
5	Paving	Paving	10/1/2021	10/14/2021	5	10	
6	Architectural Coating	Architectural Coating	10/18/2021	10/29/2021	5	10	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0.23

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 600 (Architectural Coating – sqft)

OffRoad Equipment

Page 8 of 26

Lower Busch Tanks - Los Angeles-South Coast County, Summer

Date: 9/30/2019 10:59 AM

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	1	8.00	158	0.38
Demolition	Other Construction Equipment	 1	8.00	172	0.42
Demolition	Rubber Tired Dozers	0	1.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Concrete/Industrial Saws	0	8.00	81	0.73
Grading	Excavators	1	8.00	158	0.38
Grading	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Trenching	Concrete/Industrial Saws	0	8.00	81	0.73
Trenching	Excavators	1	6.00	97	0.37
Trenching	Graders	0	8.00	187	0.41
Trenching	Rubber Tired Dozers	0	1.00	247	0.40
Trenching	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Cranes	0	4.00	231	0.29
Building Construction	Forklifts	0	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Paving	Cement and Mortar Mixers	0	6.00	9	0.56
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction	Cranes	 1	8.00	231	0.29
Building Construction	Welders	2	8.00	46	0.45

Trips and VMT

Page 9 of 26

Date: 9/30/2019 10:59 AM

Lower Busch Tanks - Los Angeles-South Coast County, Summer

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	42.00	14.70	6.90	25.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	168.00	14.70	6.90	25.00	LD_Mix	HDT_Mix	HHDT
Trenching	2	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	2	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	4	4.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	1.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment Water Exposed Area

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	day		
Fugitive Dust					0.3932	0.0000	0.3932	0.0595	0.0000	0.0595			0.0000			0.0000
Off-Road	1.3148	12.4159	14.3913	0.0223		0.6743	0.6743	 	0.6342	0.6342		2,142.731 2	2,142.731 2	0.5357		2,156.124 6
Total	1.3148	12.4159	14.3913	0.0223	0.3932	0.6743	1.0675	0.0595	0.6342	0.6938		2,142.731 2	2,142.731	0.5357		2,156.124 6

CalEEMod Version: CalEEMod.2016.3.2 Page 10 of 26 Date: 9/30/2019 10:59 AM

Lower Busch Tanks - Los Angeles-South Coast County, Summer

3.2 Demolition - 2021

<u>Unmitigated Construction Off-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	lay		
Hauling	0.0263	0.8190	0.1989	2.4900e- 003	0.0574	2.6800e- 003	0.0600	0.0157	2.5600e- 003	0.0183		270.2382	270.2382	0.0178		270.6839
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0557	0.0383	0.5236	1.4900e- 003	0.1453	1.1700e- 003	0.1465	0.0385	1.0800e- 003	0.0396		148.0401	148.0401	4.3600e- 003		148.1491
Total	0.0821	0.8573	0.7225	3.9800e- 003	0.2027	3.8500e- 003	0.2065	0.0543	3.6400e- 003	0.0579		418.2783	418.2783	0.0222		418.8330

Mitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	day		
Fugitive Dust	11 11 11				0.1534	0.0000	0.1534	0.0232	0.0000	0.0232			0.0000		i i	0.0000
Off-Road	0.5191	10.8717	16.0039	0.0223		0.6438	0.6438		0.6438	0.6438	0.0000	2,142.731 2	2,142.731 2	0.5357		2,156.124 6
Total	0.5191	10.8717	16.0039	0.0223	0.1534	0.6438	0.7972	0.0232	0.6438	0.6671	0.0000	2,142.731 2	2,142.731 2	0.5357		2,156.124 6

CalEEMod Version: CalEEMod.2016.3.2 Page 11 of 26 Date: 9/30/2019 10:59 AM

Lower Busch Tanks - Los Angeles-South Coast County, Summer

3.2 Demolition - 2021

<u>Mitigated Construction Off-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day							lb/d	day		
Hauling	0.0263	0.8190	0.1989	2.4900e- 003	0.0574	2.6800e- 003	0.0600	0.0157	2.5600e- 003	0.0183		270.2382	270.2382	0.0178		270.6839
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0557	0.0383	0.5236	1.4900e- 003	0.1453	1.1700e- 003	0.1465	0.0385	1.0800e- 003	0.0396		148.0401	148.0401	4.3600e- 003		148.1491
Total	0.0821	0.8573	0.7225	3.9800e- 003	0.2027	3.8500e- 003	0.2065	0.0543	3.6400e- 003	0.0579		418.2783	418.2783	0.0222		418.8330

3.3 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Fugitive Dust					0.7579	0.0000	0.7579	0.4146	0.0000	0.4146			0.0000			0.0000
Off-Road	0.6409	6.3685	7.1669	0.0109		0.3387	0.3387		0.3116	0.3116		1,054.9611	1,054.9611	0.3412		1,063.491 0
Total	0.6409	6.3685	7.1669	0.0109	0.7579	0.3387	1.0966	0.4146	0.3116	0.7261		1,054.961 1	1,054.961 1	0.3412		1,063.491 0

CalEEMod Version: CalEEMod.2016.3.2 Page 12 of 26 Date: 9/30/2019 10:59 AM

Lower Busch Tanks - Los Angeles-South Coast County, Summer

3.3 Grading - 2021

<u>Unmitigated Construction Off-Site</u>

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day							lb/d	day		
Hauling	0.0766	2.3826	0.5785	7.2500e- 003	0.1669	7.7900e- 003	0.1747	0.0457	7.4500e- 003	0.0532		786.1475	786.1475	0.0519		787.4440
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	 	0.0000
Worker	0.0429	0.0295	0.4028	1.1400e- 003	0.1118	9.0000e- 004	0.1127	0.0296	8.3000e- 004	0.0305		113.8770	113.8770	3.3600e- 003	 	113.9609
Total	0.1194	2.4121	0.9812	8.3900e- 003	0.2787	8.6900e- 003	0.2873	0.0754	8.2800e- 003	0.0837		900.0244	900.0244	0.0552		901.4048

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Fugitive Dust	 		i i i		0.2956	0.0000	0.2956	0.1617	0.0000	0.1617			0.0000			0.0000
Off-Road	0.2672	5.5636	7.9974	0.0109		0.3201	0.3201	 	0.3201	0.3201	0.0000	1,054.9611	1,054.9611	0.3412		1,063.491 0
Total	0.2672	5.5636	7.9974	0.0109	0.2956	0.3201	0.6157	0.1617	0.3201	0.4818	0.0000	1,054.961 1	1,054.961 1	0.3412		1,063.491 0

CalEEMod Version: CalEEMod.2016.3.2 Page 13 of 26 Date: 9/30/2019 10:59 AM

Lower Busch Tanks - Los Angeles-South Coast County, Summer

3.3 Grading - 2021

<u>Mitigated Construction Off-Site</u>

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day							lb/d	day		
Hauling	0.0766	2.3826	0.5785	7.2500e- 003	0.1669	7.7900e- 003	0.1747	0.0457	7.4500e- 003	0.0532		786.1475	786.1475	0.0519		787.4440
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	 	0.0000
Worker	0.0429	0.0295	0.4028	1.1400e- 003	0.1118	9.0000e- 004	0.1127	0.0296	8.3000e- 004	0.0305		113.8770	113.8770	3.3600e- 003	 	113.9609
Total	0.1194	2.4121	0.9812	8.3900e- 003	0.2787	8.6900e- 003	0.2873	0.0754	8.2800e- 003	0.0837		900.0244	900.0244	0.0552		901.4048

3.4 Trenching - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
	0.3178	3.2483	3.9180	5.4000e- 003		0.1880	0.1880		0.1730	0.1730		522.9806	522.9806	0.1691		527.2092
Total	0.3178	3.2483	3.9180	5.4000e- 003		0.1880	0.1880		0.1730	0.1730		522.9806	522.9806	0.1691		527.2092

CalEEMod Version: CalEEMod.2016.3.2 Page 14 of 26 Date: 9/30/2019 10:59 AM

Lower Busch Tanks - Los Angeles-South Coast County, Summer

3.4 Trenching - 2021

<u>Unmitigated Construction Off-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	day		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0429	0.0295	0.4028	1.1400e- 003	0.2090	9.0000e- 004	0.2099	0.0535	8.3000e- 004	0.0543		113.8770	113.8770	3.3600e- 003		113.9609
Total	0.0429	0.0295	0.4028	1.1400e- 003	0.2090	9.0000e- 004	0.2099	0.0535	8.3000e- 004	0.0543		113.8770	113.8770	3.3600e- 003		113.9609

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Off-Road	0.1329	3.0352	4.0986	5.4000e- 003		0.2127	0.2127		0.2127	0.2127	0.0000	522.9806	522.9806	0.1691		527.2092
Total	0.1329	3.0352	4.0986	5.4000e- 003		0.2127	0.2127		0.2127	0.2127	0.0000	522.9806	522.9806	0.1691		527.2092

CalEEMod Version: CalEEMod.2016.3.2 Page 15 of 26 Date: 9/30/2019 10:59 AM

Lower Busch Tanks - Los Angeles-South Coast County, Summer

3.4 Trenching - 2021

<u>Mitigated Construction Off-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	day		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0429	0.0295	0.4028	1.1400e- 003	0.2090	9.0000e- 004	0.2099	0.0535	8.3000e- 004	0.0543		113.8770	113.8770	3.3600e- 003		113.9609
Total	0.0429	0.0295	0.4028	1.1400e- 003	0.2090	9.0000e- 004	0.2099	0.0535	8.3000e- 004	0.0543		113.8770	113.8770	3.3600e- 003		113.9609

3.5 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Off-Road	1.2028	9.7312	7.6677	0.0140		0.4556	0.4556		0.4310	0.4310		1,270.933 6	1,270.933 6	0.3309		1,279.205 4
Total	1.2028	9.7312	7.6677	0.0140		0.4556	0.4556		0.4310	0.4310		1,270.933 6	1,270.933 6	0.3309		1,279.205 4

CalEEMod Version: CalEEMod.2016.3.2 Page 16 of 26 Date: 9/30/2019 10:59 AM

Lower Busch Tanks - Los Angeles-South Coast County, Summer

3.5 Building Construction - 2021 Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day							lb/d	day		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.0800e- 003	0.1942	0.0508	5.1000e- 004	0.0128	4.0000e- 004	0.0132	3.6900e- 003	3.8000e- 004	4.0700e- 003		54.9761	54.9761	3.2400e- 003		55.0571
Worker	0.0172	0.0118	0.1611	4.6000e- 004	0.0447	3.6000e- 004	0.0451	0.0119	3.3000e- 004	0.0122		45.5508	45.5508	1.3400e- 003		45.5844
Total	0.0232	0.2060	0.2119	9.7000e- 004	0.0575	7.6000e- 004	0.0583	0.0156	7.1000e- 004	0.0163		100.5269	100.5269	4.5800e- 003		100.6415

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
	1.0915	9.5698	7.7496	0.0140		0.4654	0.4654		0.4497	0.4497	0.0000	1,270.933 6	1,270.933 6	0.3309		1,279.205 4
Total	1.0915	9.5698	7.7496	0.0140		0.4654	0.4654		0.4497	0.4497	0.0000	1,270.933 6	1,270.933 6	0.3309		1,279.205 4

CalEEMod Version: CalEEMod.2016.3.2 Page 17 of 26 Date: 9/30/2019 10:59 AM

Lower Busch Tanks - Los Angeles-South Coast County, Summer

3.5 Building Construction - 2021 Mitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day							lb/d	day		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.0800e- 003	0.1942	0.0508	5.1000e- 004	0.0128	4.0000e- 004	0.0132	3.6900e- 003	3.8000e- 004	4.0700e- 003		54.9761	54.9761	3.2400e- 003	 	55.0571
Worker	0.0172	0.0118	0.1611	4.6000e- 004	0.0447	3.6000e- 004	0.0451	0.0119	3.3000e- 004	0.0122		45.5508	45.5508	1.3400e- 003	 	45.5844
Total	0.0232	0.2060	0.2119	9.7000e- 004	0.0575	7.6000e- 004	0.0583	0.0156	7.1000e- 004	0.0163		100.5269	100.5269	4.5800e- 003		100.6415

3.6 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day							lb/d	day		
Off-Road	0.5451	5.6132	6.1648	9.1300e- 003		0.3105	0.3105		0.2856	0.2856		883.7936	883.7936	0.2858		890.9395
Paving	0.0000		 		 	0.0000	0.0000		0.0000	0.0000		 	0.0000		i i	0.0000
Total	0.5451	5.6132	6.1648	9.1300e- 003		0.3105	0.3105		0.2856	0.2856		883.7936	883.7936	0.2858		890.9395

CalEEMod Version: CalEEMod.2016.3.2 Page 18 of 26 Date: 9/30/2019 10:59 AM

Lower Busch Tanks - Los Angeles-South Coast County, Summer

3.6 Paving - 2021

<u>Unmitigated Construction Off-Site</u>

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	day		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0343	0.0236	0.3222	9.1000e- 004	0.0894	7.2000e- 004	0.0901	0.0237	6.7000e- 004	0.0244		91.1016	91.1016	2.6800e- 003		91.1687
Total	0.0343	0.0236	0.3222	9.1000e- 004	0.0894	7.2000e- 004	0.0901	0.0237	6.7000e- 004	0.0244		91.1016	91.1016	2.6800e- 003		91.1687

Mitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Off-Road	0.2239	4.7579	6.9028	9.1300e- 003		0.2908	0.2908		0.2908	0.2908	0.0000	883.7936	883.7936	0.2858		890.9395
Paving	0.0000		 			0.0000	0.0000		0.0000	0.0000		i i i	0.0000		 	0.0000
Total	0.2239	4.7579	6.9028	9.1300e- 003		0.2908	0.2908		0.2908	0.2908	0.0000	883.7936	883.7936	0.2858		890.9395

CalEEMod Version: CalEEMod.2016.3.2 Page 19 of 26 Date: 9/30/2019 10:59 AM

Lower Busch Tanks - Los Angeles-South Coast County, Summer

3.6 Paving - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	day		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0343	0.0236	0.3222	9.1000e- 004	0.0894	7.2000e- 004	0.0901	0.0237	6.7000e- 004	0.0244		91.1016	91.1016	2.6800e- 003		91.1687
Total	0.0343	0.0236	0.3222	9.1000e- 004	0.0894	7.2000e- 004	0.0901	0.0237	6.7000e- 004	0.0244		91.1016	91.1016	2.6800e- 003		91.1687

3.7 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	lay		
Archit. Coating	0.2781					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e- 003		0.0941	0.0941	 	0.0941	0.0941		281.4481	281.4481	0.0193		281.9309
Total	0.4970	1.5268	1.8176	2.9700e- 003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309

CalEEMod Version: CalEEMod.2016.3.2 Page 20 of 26 Date: 9/30/2019 10:59 AM

Lower Busch Tanks - Los Angeles-South Coast County, Summer

3.7 Architectural Coating - 2021 Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day							lb/d	day		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	4.2900e- 003	2.9500e- 003	0.0403	1.1000e- 004	0.0112	9.0000e- 005	0.0113	2.9600e- 003	8.0000e- 005	3.0500e- 003		11.3877	11.3877	3.4000e- 004		11.3961
Total	4.2900e- 003	2.9500e- 003	0.0403	1.1000e- 004	0.0112	9.0000e- 005	0.0113	2.9600e- 003	8.0000e- 005	3.0500e- 003		11.3877	11.3877	3.4000e- 004		11.3961

Mitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day							lb/c	day		
Archit. Coating	0.2781					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e- 003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0193		281.9309
Total	0.3375	1.3570	1.8324	2.9700e- 003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0193		281.9309

CalEEMod Version: CalEEMod.2016.3.2 Page 21 of 26 Date: 9/30/2019 10:59 AM

Lower Busch Tanks - Los Angeles-South Coast County, Summer

3.7 Architectural Coating - 2021 Mitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	day		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	4.2900e- 003	2.9500e- 003	0.0403	1.1000e- 004	0.0112	9.0000e- 005	0.0113	2.9600e- 003	8.0000e- 005	3.0500e- 003		11.3877	11.3877	3.4000e- 004		11.3961
Total	4.2900e- 003	2.9500e- 003	0.0403	1.1000e- 004	0.0112	9.0000e- 005	0.0113	2.9600e- 003	8.0000e- 005	3.0500e- 003		11.3877	11.3877	3.4000e- 004	_	11.3961

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Lower Busch Tanks - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Avei	rage Daily Trip Ra	ate	Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

		Miles			Trip %			Trip Purpos	e %
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Non-Asphalt Surfaces	0.547192	0.045177	0.202743	0.121510	0.016147	0.006143	0.019743	0.029945	0.002479	0.002270	0.005078	0.000682	0.000891

5.0 Energy Detail

Historical Energy Use: N

CalEEMod Version: CalEEMod.2016.3.2 Page 23 of 26 Date: 9/30/2019 10:59 AM

Lower Busch Tanks - Los Angeles-South Coast County, Summer

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas Unmitigated

	NaturalGa s Use	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr					lb/d	day							lb/d	day		
Other Non- Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

CalEEMod Version: CalEEMod.2016.3.2 Page 24 of 26 Date: 9/30/2019 10:59 AM

Lower Busch Tanks - Los Angeles-South Coast County, Summer

5.2 Energy by Land Use - NaturalGas Mitigated

	NaturalGa s Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr					lb/d	day							lb/c	lay		
Other Non- Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	1 1 1	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	lay		
ı	4.4000e- 003	1.0000e- 005	1.0200e- 003	0.0000		0.0000	0.0000		0.0000	0.0000		2.1900e- 003	2.1900e- 003	1.0000e- 005		2.3300e- 003
	4.4000e- 003	1.0000e- 005	1.0200e- 003	0.0000		0.0000	0.0000		0.0000	0.0000		2.1900e- 003	2.1900e- 003	1.0000e- 005		2.3300e- 003

CalEEMod Version: CalEEMod.2016.3.2 Page 25 of 26 Date: 9/30/2019 10:59 AM

Lower Busch Tanks - Los Angeles-South Coast County, Summer

6.2 Area by SubCategory <u>Unmitigated</u>

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory					lb/d	day							lb/d	day		
Oti	7.6000e- 004					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
1 5	3.5400e- 003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e- 004	1.0000e- 005	1.0200e- 003	0.0000		0.0000	0.0000		0.0000	0.0000		2.1900e- 003	2.1900e- 003	1.0000e- 005		2.3300e- 003
Total	4.4000e- 003	1.0000e- 005	1.0200e- 003	0.0000		0.0000	0.0000		0.0000	0.0000		2.1900e- 003	2.1900e- 003	1.0000e- 005		2.3300e- 003

Mitigated

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory					lb/d	day							lb/d	day		
Architectural Coating	7.6000e- 004					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.5400e- 003					0.0000	0.0000	,	0.0000	0.0000		,	0.0000			0.0000
Landscaping	1.0000e- 004	1.0000e- 005	1.0200e- 003	0.0000		0.0000	0.0000	1 	0.0000	0.0000		2.1900e- 003	2.1900e- 003	1.0000e- 005		2.3300e- 003
Total	4.4000e- 003	1.0000e- 005	1.0200e- 003	0.0000		0.0000	0.0000		0.0000	0.0000		2.1900e- 003	2.1900e- 003	1.0000e- 005		2.3300e- 003

7.0 Water Detail

CalEEMod Version: CalEEMod.2016.3.2 Page 26 of 26 Date: 9/30/2019 10:59 AM

Lower Busch Tanks - Los Angeles-South Coast County, Summer

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Dov	Doyo/Voor	Horoo Bower	Lood Footor	Fuel Type
Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type	
----------------	--------	-----------	------------	-------------	-------------	-----------	--

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number
----------------	--------

11.0 Vegetation

CalEEMod Version: CalEEMod.2016.3.2 Page 1 of 26 Date: 9/30/2019 11:02 AM

Lower Busch Tanks - Los Angeles-South Coast County, Winter

Lower Busch Tanks

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	10.00	1000sqft	0.23	10,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	8			Operational Year	2021
Utility Company	Southern California Edis	on			
CO2 Intensity (lb/MWhr)	702.44	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Lower Busch Tanks - Los Angeles-South Coast County, Winter

Date: 9/30/2019 11:02 AM

Project Characteristics -

Land Use -

Construction Phase - Project construction schedule

Off-road Equipment - Estimated by developer

Demolition -

Grading -

Construction Off-road Equipment Mitigation - pdf

Trips and VMT - Based on data request

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3

Page 3 of 26

Lower Busch Tanks - Los Angeles-South Coast County, Winter

Date: 9/30/2019 11:02 AM

tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	10.00	16.00
tblConstructionPhase	NumDays	2.00	22.00
tblConstructionPhase	NumDays	100.00	103.00
tblConstructionPhase	NumDays	5.00	10.00
tblConstructionPhase	NumDays	5.00	10.00
tblGrading	MaterialExported	0.00	400.00
tblGrading	MaterialImported	0.00	600.00
tblOffRoadEquipment	HorsePower	158.00	97.00
tblOffRoadEquipment	LoadFactor	0.38	0.37
tblOffRoadEquipment	LoadFactor	0.29	0.29
tblOffRoadEquipment	OffRoadEquipmentType		Cranes
tblOffRoadEquipment	OffRoadEquipmentType		Welders
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	UsageHours	4.00	8.00
tblTripsAndVMT	HaulingTripLength	20.00	25.00
tblTripsAndVMT	HaulingTripLength	20.00	25.00
tblTripsAndVMT	HaulingTripNumber	29.00	42.00
		ı	

Lower Busch Tanks - Los Angeles-South Coast County, Winter

Date: 9/30/2019 11:02 AM

tblTripsAndVMT	Haulin	gTripNumber	125.00	,	168.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year					lb/d	day							lb/d	day		
2021	1.4036	13.2905	15.0787	0.0261	1.0366	0.6782	1.3840	0.4899	0.6379	0.8099	0.0000	2,548.512 9	2,548.512 9	0.5582	0.0000	2,562.467 8
Maximum	1.4036	13.2905	15.0787	0.0261	1.0366	0.6782	1.3840	0.4899	0.6379	0.8099	0.0000	2,548.512 9	2,548.512 9	0.5582	0.0000	2,562.467 8

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year					lb/e	day							lb/c	lay		
2021	1.1169	11.7462	16.6912	0.0261	0.5742	0.6477	1.0037	0.2371	0.6475	0.7250	0.0000	2,548.512 9	2,548.512 9	0.5582	0.0000	2,562.467 8
Maximum	1.1169	11.7462	16.6912	0.0261	0.5742	0.6477	1.0037	0.2371	0.6475	0.7250	0.0000	2,548.512 9	2,548.512 9	0.5582	0.0000	2,562.467 8

Lower Busch Tanks - Los Angeles-South Coast County, Winter

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	20.43	11.62	-10.69	0.00	44.60	4.49	27.48	51.61	-1.51	10.48	0.00	0.00	0.00	0.00	0.00	0.00

CalEEMod Version: CalEEMod.2016.3.2 Page 6 of 26 Date: 9/30/2019 11:02 AM

Lower Busch Tanks - Los Angeles-South Coast County, Winter

2.2 Overall Operational Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	day		
Area	4.4000e- 003	1.0000e- 005	1.0200e- 003	0.0000		0.0000	0.0000		0.0000	0.0000		2.1900e- 003	2.1900e- 003	1.0000e- 005		2.3300e- 003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	4.4000e- 003	1.0000e- 005	1.0200e- 003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		2.1900e- 003	2.1900e- 003	1.0000e- 005	0.0000	2.3300e- 003

Mitigated Operational

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	day		
Area	4.4000e- 003	1.0000e- 005	1.0200e- 003	0.0000		0.0000	0.0000		0.0000	0.0000		2.1900e- 003	2.1900e- 003	1.0000e- 005		2.3300e- 003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	4.4000e- 003	1.0000e- 005	1.0200e- 003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		2.1900e- 003	2.1900e- 003	1.0000e- 005	0.0000	2.3300e- 003

Lower Busch Tanks - Los Angeles-South Coast County, Winter

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	2/11/2021	3/4/2021	5	16	
2	Grading	Grading	3/5/2021	4/5/2021	5	22	
3	Trenching	Trenching	4/7/2021	5/6/2021	5	22	
4	Building Construction	Building Construction	5/10/2021	9/29/2021	5	103	
5	Paving	Paving	10/1/2021	10/14/2021	5	10	
6	Architectural Coating	Architectural Coating	10/18/2021	10/29/2021	5	10	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0.23

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 600 (Architectural Coating – sqft)

OffRoad Equipment

Lower Busch Tanks - Los Angeles-South Coast County, Winter

Date: 9/30/2019 11:02 AM

Page 8 of 26

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	1	8.00	158	0.38
Demolition	Other Construction Equipment	1	8.00	172	0.42
Demolition	Rubber Tired Dozers	0	1.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Concrete/Industrial Saws	0	8.00	81	0.73
Grading	Excavators	1	8.00	158	0.38
Grading	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Trenching	Concrete/Industrial Saws	0	8.00	81	0.73
Trenching	Excavators	1	6.00	97	0.37
Trenching	Graders	0	8.00	187	0.41
Trenching	Rubber Tired Dozers	0	1.00	247	0.40
Trenching	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Cranes	0	4.00	231	0.29
Building Construction	Forklifts	0	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Paving	Cement and Mortar Mixers	0	6.00	9	0.56
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Welders	2	8.00	46	0.45

Trips and VMT

Date: 9/30/2019 11:02 AM

Lower Busch Tanks - Los Angeles-South Coast County, Winter

Page 9 of 26

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	42.00	14.70	6.90	25.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	168.00	14.70	6.90	25.00	LD_Mix	HDT_Mix	HHDT
Trenching	2	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	2	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	4	4.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	1.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment Water Exposed Area

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/e	day							lb/c	day		
Fugitive Dust					0.3932	0.0000	0.3932	0.0595	0.0000	0.0595		! !	0.0000			0.0000
Off-Road	1.3148	12.4159	14.3913	0.0223		0.6743	0.6743		0.6342	0.6342		2,142.731 2	2,142.731 2	0.5357		2,156.124 6
Total	1.3148	12.4159	14.3913	0.0223	0.3932	0.6743	1.0675	0.0595	0.6342	0.6938		2,142.731 2	2,142.731 2	0.5357		2,156.124 6

CalEEMod Version: CalEEMod.2016.3.2 Page 10 of 26 Date: 9/30/2019 11:02 AM

Lower Busch Tanks - Los Angeles-South Coast County, Winter

3.2 Demolition - 2021

<u>Unmitigated Construction Off-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	day		
Hauling	0.0268	0.8321	0.2086	2.4500e- 003	0.0574	2.7100e- 003	0.0601	0.0157	2.5900e- 003	0.0183		266.3891	266.3891	0.0184		266.8480
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0620	0.0424	0.4787	1.4000e- 003	0.1453	1.1700e- 003	0.1465	0.0385	1.0800e- 003	0.0396		139.3926	139.3926	4.1000e- 003		139.4952
Total	0.0888	0.8745	0.6873	3.8500e- 003	0.2027	3.8800e- 003	0.2066	0.0543	3.6700e- 003	0.0579		405.7817	405.7817	0.0225		406.3432

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Fugitive Dust			i i		0.1534	0.0000	0.1534	0.0232	0.0000	0.0232		i i i	0.0000			0.0000
Off-Road	0.5191	10.8717	16.0039	0.0223	 	0.6438	0.6438	 	0.6438	0.6438	0.0000	2,142.731 2	2,142.731 2	0.5357		2,156.124 6
Total	0.5191	10.8717	16.0039	0.0223	0.1534	0.6438	0.7972	0.0232	0.6438	0.6671	0.0000	2,142.731 2	2,142.731 2	0.5357		2,156.124 6

CalEEMod Version: CalEEMod.2016.3.2 Page 11 of 26 Date: 9/30/2019 11:02 AM

Lower Busch Tanks - Los Angeles-South Coast County, Winter

3.2 Demolition - 2021

<u>Mitigated Construction Off-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	day		
Hauling	0.0268	0.8321	0.2086	2.4500e- 003	0.0574	2.7100e- 003	0.0601	0.0157	2.5900e- 003	0.0183		266.3891	266.3891	0.0184		266.8480
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0620	0.0424	0.4787	1.4000e- 003	0.1453	1.1700e- 003	0.1465	0.0385	1.0800e- 003	0.0396		139.3926	139.3926	4.1000e- 003		139.4952
Total	0.0888	0.8745	0.6873	3.8500e- 003	0.2027	3.8800e- 003	0.2066	0.0543	3.6700e- 003	0.0579		405.7817	405.7817	0.0225		406.3432

3.3 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Fugitive Dust					0.7579	0.0000	0.7579	0.4146	0.0000	0.4146			0.0000			0.0000
Off-Road	0.6409	6.3685	7.1669	0.0109	 - 	0.3387	0.3387		0.3116	0.3116		1,054.9611	1,054.9611	0.3412		1,063.491 0
Total	0.6409	6.3685	7.1669	0.0109	0.7579	0.3387	1.0966	0.4146	0.3116	0.7261		1,054.961 1	1,054.961 1	0.3412		1,063.491 0

CalEEMod Version: CalEEMod.2016.3.2 Page 12 of 26 Date: 9/30/2019 11:02 AM

Lower Busch Tanks - Los Angeles-South Coast County, Winter

3.3 Grading - 2021

<u>Unmitigated Construction Off-Site</u>

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day							lb/d	day		
Hauling	0.0781	2.4208	0.6068	7.1400e- 003	0.1669	7.8900e- 003	0.1748	0.0457	7.5400e- 003	0.0533		774.9501	774.9501	0.0534		776.2852
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	 	0.0000
Worker	0.0477	0.0326	0.3683	1.0800e- 003	0.1118	9.0000e- 004	0.1127	0.0296	8.3000e- 004	0.0305		107.2251	107.2251	3.1600e- 003	 	107.3040
Total	0.1258	2.4534	0.9750	8.2200e- 003	0.2787	8.7900e- 003	0.2874	0.0754	8.3700e- 003	0.0838		882.1752	882.1752	0.0566		883.5892

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Fugitive Dust	 		i i i		0.2956	0.0000	0.2956	0.1617	0.0000	0.1617			0.0000			0.0000
Off-Road	0.2672	5.5636	7.9974	0.0109		0.3201	0.3201	 	0.3201	0.3201	0.0000	1,054.9611	1,054.9611	0.3412		1,063.491 0
Total	0.2672	5.5636	7.9974	0.0109	0.2956	0.3201	0.6157	0.1617	0.3201	0.4818	0.0000	1,054.961 1	1,054.961 1	0.3412		1,063.491 0

CalEEMod Version: CalEEMod.2016.3.2 Page 13 of 26 Date: 9/30/2019 11:02 AM

Lower Busch Tanks - Los Angeles-South Coast County, Winter

3.3 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	day		
Hauling	0.0781	2.4208	0.6068	7.1400e- 003	0.1669	7.8900e- 003	0.1748	0.0457	7.5400e- 003	0.0533		774.9501	774.9501	0.0534		776.2852
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	 	0.0000
Worker	0.0477	0.0326	0.3683	1.0800e- 003	0.1118	9.0000e- 004	0.1127	0.0296	8.3000e- 004	0.0305		107.2251	107.2251	3.1600e- 003	 	107.3040
Total	0.1258	2.4534	0.9750	8.2200e- 003	0.2787	8.7900e- 003	0.2874	0.0754	8.3700e- 003	0.0838		882.1752	882.1752	0.0566		883.5892

3.4 Trenching - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Off-Road	0.3178	3.2483	3.9180	5.4000e- 003		0.1880	0.1880		0.1730	0.1730		522.9806	522.9806	0.1691		527.2092
Total	0.3178	3.2483	3.9180	5.4000e- 003		0.1880	0.1880		0.1730	0.1730		522.9806	522.9806	0.1691		527.2092

CalEEMod Version: CalEEMod.2016.3.2 Page 14 of 26 Date: 9/30/2019 11:02 AM

Lower Busch Tanks - Los Angeles-South Coast County, Winter

3.4 Trenching - 2021
Unmitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	day		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0477	0.0326	0.3683	1.0800e- 003	0.2090	9.0000e- 004	0.2099	0.0535	8.3000e- 004	0.0543		107.2251	107.2251	3.1600e- 003		107.3040
Total	0.0477	0.0326	0.3683	1.0800e- 003	0.2090	9.0000e- 004	0.2099	0.0535	8.3000e- 004	0.0543		107.2251	107.2251	3.1600e- 003		107.3040

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	lay		
Off-Road	0.1329	3.0352	4.0986	5.4000e- 003		0.2127	0.2127		0.2127	0.2127	0.0000	522.9806	522.9806	0.1691		527.2092
Total	0.1329	3.0352	4.0986	5.4000e- 003		0.2127	0.2127		0.2127	0.2127	0.0000	522.9806	522.9806	0.1691		527.2092

CalEEMod Version: CalEEMod.2016.3.2 Page 15 of 26 Date: 9/30/2019 11:02 AM

Lower Busch Tanks - Los Angeles-South Coast County, Winter

3.4 Trenching - 2021

<u>Mitigated Construction Off-Site</u>

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	day		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0477	0.0326	0.3683	1.0800e- 003	0.2090	9.0000e- 004	0.2099	0.0535	8.3000e- 004	0.0543		107.2251	107.2251	3.1600e- 003		107.3040
Total	0.0477	0.0326	0.3683	1.0800e- 003	0.2090	9.0000e- 004	0.2099	0.0535	8.3000e- 004	0.0543		107.2251	107.2251	3.1600e- 003		107.3040

3.5 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
- Cirricad	1.2028	9.7312	7.6677	0.0140		0.4556	0.4556		0.4310	0.4310		1,270.933 6	1,270.933 6	0.3309		1,279.205 4
Total	1.2028	9.7312	7.6677	0.0140		0.4556	0.4556		0.4310	0.4310		1,270.933 6	1,270.933 6	0.3309		1,279.205 4

CalEEMod Version: CalEEMod.2016.3.2 Page 16 of 26 Date: 9/30/2019 11:02 AM

Lower Busch Tanks - Los Angeles-South Coast County, Winter

3.5 Building Construction - 2021 Unmitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day							lb/d	day		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.3800e- 003	0.1938	0.0562	5.0000e- 004	0.0128	4.1000e- 004	0.0132	3.6900e- 003	3.9000e- 004	4.0800e- 003		53.4691	53.4691	3.4500e- 003		53.5554
Worker	0.0191	0.0131	0.1473	4.3000e- 004	0.0447	3.6000e- 004	0.0451	0.0119	3.3000e- 004	0.0122		42.8900	42.8900	1.2600e- 003		42.9216
Total	0.0255	0.2068	0.2035	9.3000e- 004	0.0575	7.7000e- 004	0.0583	0.0156	7.2000e- 004	0.0163		96.3592	96.3592	4.7100e- 003		96.4770

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Off-Road	1.0915	9.5698	7.7496	0.0140		0.4654	0.4654		0.4497	0.4497	0.0000	1,270.933 6	1,270.933 6	0.3309		1,279.205 4
Total	1.0915	9.5698	7.7496	0.0140		0.4654	0.4654		0.4497	0.4497	0.0000	1,270.933 6	1,270.933 6	0.3309		1,279.205 4

CalEEMod Version: CalEEMod.2016.3.2 Page 17 of 26 Date: 9/30/2019 11:02 AM

Lower Busch Tanks - Los Angeles-South Coast County, Winter

3.5 Building Construction - 2021 Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day							lb/d	day		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.3800e- 003	0.1938	0.0562	5.0000e- 004	0.0128	4.1000e- 004	0.0132	3.6900e- 003	3.9000e- 004	4.0800e- 003		53.4691	53.4691	3.4500e- 003		53.5554
Worker	0.0191	0.0131	0.1473	4.3000e- 004	0.0447	3.6000e- 004	0.0451	0.0119	3.3000e- 004	0.0122		42.8900	42.8900	1.2600e- 003		42.9216
Total	0.0255	0.2068	0.2035	9.3000e- 004	0.0575	7.7000e- 004	0.0583	0.0156	7.2000e- 004	0.0163		96.3592	96.3592	4.7100e- 003		96.4770

3.6 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	day		
Off-Road	0.5451	5.6132	6.1648	9.1300e- 003		0.3105	0.3105		0.2856	0.2856		883.7936	883.7936	0.2858		890.9395
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000		i i i	0.0000
Total	0.5451	5.6132	6.1648	9.1300e- 003		0.3105	0.3105		0.2856	0.2856		883.7936	883.7936	0.2858		890.9395

CalEEMod Version: CalEEMod.2016.3.2 Page 18 of 26 Date: 9/30/2019 11:02 AM

Lower Busch Tanks - Los Angeles-South Coast County, Winter

3.6 Paving - 2021

<u>Unmitigated Construction Off-Site</u>

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	day		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0382	0.0261	0.2946	8.6000e- 004	0.0894	7.2000e- 004	0.0901	0.0237	6.7000e- 004	0.0244		85.7801	85.7801	2.5200e- 003		85.8432
Total	0.0382	0.0261	0.2946	8.6000e- 004	0.0894	7.2000e- 004	0.0901	0.0237	6.7000e- 004	0.0244		85.7801	85.7801	2.5200e- 003		85.8432

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	day		
Off-Road	0.2239	4.7579	6.9028	9.1300e- 003		0.2908	0.2908	 	0.2908	0.2908	0.0000	883.7936	883.7936	0.2858		890.9395
Paving	0.0000	 				0.0000	0.0000	 	0.0000	0.0000			0.0000		 	0.0000
Total	0.2239	4.7579	6.9028	9.1300e- 003		0.2908	0.2908		0.2908	0.2908	0.0000	883.7936	883.7936	0.2858		890.9395

CalEEMod Version: CalEEMod.2016.3.2 Page 19 of 26 Date: 9/30/2019 11:02 AM

Lower Busch Tanks - Los Angeles-South Coast County, Winter

3.6 Paving - 2021

<u>Mitigated Construction Off-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	day		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0382	0.0261	0.2946	8.6000e- 004	0.0894	7.2000e- 004	0.0901	0.0237	6.7000e- 004	0.0244		85.7801	85.7801	2.5200e- 003		85.8432
Total	0.0382	0.0261	0.2946	8.6000e- 004	0.0894	7.2000e- 004	0.0901	0.0237	6.7000e- 004	0.0244		85.7801	85.7801	2.5200e- 003		85.8432

3.7 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Archit. Coating	0.2781					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
	0.2189	1.5268	1.8176	2.9700e- 003		0.0941	0.0941	 	0.0941	0.0941		281.4481	281.4481	0.0193	 	281.9309
Total	0.4970	1.5268	1.8176	2.9700e- 003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309

CalEEMod Version: CalEEMod.2016.3.2 Page 20 of 26 Date: 9/30/2019 11:02 AM

Lower Busch Tanks - Los Angeles-South Coast County, Winter

3.7 Architectural Coating - 2021 Unmitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	day		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	4.7700e- 003	3.2600e- 003	0.0368	1.1000e- 004	0.0112	9.0000e- 005	0.0113	2.9600e- 003	8.0000e- 005	3.0500e- 003		10.7225	10.7225	3.2000e- 004		10.7304
Total	4.7700e- 003	3.2600e- 003	0.0368	1.1000e- 004	0.0112	9.0000e- 005	0.0113	2.9600e- 003	8.0000e- 005	3.0500e- 003		10.7225	10.7225	3.2000e- 004		10.7304

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	day		
Archit. Coating	0.2781					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
	0.0594	1.3570	1.8324	2.9700e- 003		0.0951	0.0951	1 1 1 1	0.0951	0.0951	0.0000	281.4481	281.4481	0.0193	 	281.9309
Total	0.3375	1.3570	1.8324	2.9700e- 003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0193		281.9309

CalEEMod Version: CalEEMod.2016.3.2 Page 21 of 26 Date: 9/30/2019 11:02 AM

Lower Busch Tanks - Los Angeles-South Coast County, Winter

3.7 Architectural Coating - 2021 Mitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	4.7700e- 003	3.2600e- 003	0.0368	1.1000e- 004	0.0112	9.0000e- 005	0.0113	2.9600e- 003	8.0000e- 005	3.0500e- 003		10.7225	10.7225	3.2000e- 004		10.7304
Total	4.7700e- 003	3.2600e- 003	0.0368	1.1000e- 004	0.0112	9.0000e- 005	0.0113	2.9600e- 003	8.0000e- 005	3.0500e- 003		10.7225	10.7225	3.2000e- 004		10.7304

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Lower Busch Tanks - Los Angeles-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	lay		
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Ave	rage Daily Trip Ra	ate	Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

		Miles			Trip %			Trip Purpos	e %
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Non-Asphalt Surfaces	0.547192	0.045177	0.202743	0.121510	0.016147	0.006143	0.019743	0.029945	0.002479	0.002270	0.005078	0.000682	0.000891

5.0 Energy Detail

Historical Energy Use: N

CalEEMod Version: CalEEMod.2016.3.2 Page 23 of 26 Date: 9/30/2019 11:02 AM

Lower Busch Tanks - Los Angeles-South Coast County, Winter

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	day		
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas Unmitigated

	NaturalGa s Use	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr					lb/d	day							lb/c	lay		
Other Non- Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

CalEEMod Version: CalEEMod.2016.3.2 Page 24 of 26 Date: 9/30/2019 11:02 AM

Lower Busch Tanks - Los Angeles-South Coast County, Winter

5.2 Energy by Land Use - NaturalGas Mitigated

	NaturalGa s Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr					lb/d	day							lb/c	lay		
Other Non- Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	lay		
	4.4000e- 003	1.0000e- 005	1.0200e- 003	0.0000		0.0000	0.0000		0.0000	0.0000		2.1900e- 003	2.1900e- 003	1.0000e- 005		2.3300e- 003
	4.4000e- 003	1.0000e- 005	1.0200e- 003	0.0000		0.0000	0.0000		0.0000	0.0000		2.1900e- 003	2.1900e- 003	1.0000e- 005		2.3300e- 003

CalEEMod Version: CalEEMod.2016.3.2 Page 25 of 26 Date: 9/30/2019 11:02 AM

Lower Busch Tanks - Los Angeles-South Coast County, Winter

6.2 Area by SubCategory Unmitigated

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory					lb/d	day							lb/d	day		
O	7.6000e- 004					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
D 1 1	3.5400e- 003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landocaping	1.0000e- 004	1.0000e- 005	1.0200e- 003	0.0000		0.0000	0.0000		0.0000	0.0000		2.1900e- 003	2.1900e- 003	1.0000e- 005	i i	2.3300e- 003
Total	4.4000e- 003	1.0000e- 005	1.0200e- 003	0.0000		0.0000	0.0000		0.0000	0.0000		2.1900e- 003	2.1900e- 003	1.0000e- 005		2.3300e- 003

Mitigated

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory					lb/d	day							lb/d	day		
Architectural Coating	7.6000e- 004					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.5400e- 003					0.0000	0.0000	1 	0.0000	0.0000		;	0.0000		 	0.0000
Landscaping	1.0000e- 004	1.0000e- 005	1.0200e- 003	0.0000		0.0000	0.0000	1 	0.0000	0.0000		2.1900e- 003	2.1900e- 003	1.0000e- 005		2.3300e- 003
Total	4.4000e- 003	1.0000e- 005	1.0200e- 003	0.0000		0.0000	0.0000		0.0000	0.0000		2.1900e- 003	2.1900e- 003	1.0000e- 005		2.3300e- 003

7.0 Water Detail

CalEEMod Version: CalEEMod.2016.3.2 Page 26 of 26 Date: 9/30/2019 11:02 AM

Lower Busch Tanks - Los Angeles-South Coast County, Winter

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

APPENDIX B CULTURAL RECORDS SEARCH

99/19

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List 1 hict.

Resource List

Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-19-000198	CA-LAN-000198	Resource Name - Zuma Creek "D"; Other - LA-16	Site	Prehistoric	AP15 (Habitation debris)	1953 (EBERHART)	LA-00549, LA- 00832, LA-02636, LA-02786, LA- 02914, LA-02973, LA-03583, LA- 04288, LA-05307, LA-05388, LA- 08556, LA-08568, LA-09685, LA- 09686, LA-10466, LA-10649, LA-12326
P-19-000200	CA-LAN-000200	Resource Name - Zuma Creek "F"; Other - LA-18	Site	Prehistoric, Unknown	AP02 (Lithic scatter)	1953 (Hal Eberhart)	LA-00117, LA- 00278, LA-03583, LA-05276, LA- 05280, LA-05665, LA-08556, LA- 08621, LA-09385, LA-09386, LA- 09685, LA-11564, LA-12326
P-19-000201	CA-LAN-000201	Resource Name - Zuma Creek Site "G"; Other - LA-19; Zuma Beach Site	Site	Prehistòric	AP09 (Burials); AP15 (Habitation debris)	1951 (Peck); 1995 (Chester King)	LA-00117, LA- 00278, LA-01538, LA-03234, LA- 03583, LA-04779, LA-04798, LA- 05276, LA-08556, LA-08621, LA- 09385, LA-09386, LA-09685, LA- 10460, LA-11563, LA-11564, LA- 12193, LA-12326, VN-01359
P-19-000292	CA-LAN-000292		Site	Prehistoric	AP02 (Lithic scatter); AP09 (Burials); AP15 (Habitation debris); AP (6 (Other) - Shell beads	1963 (N. Leonard); 1998 (R. Wlodarski, D. Larson, HEART)	LA-00549, LA- 02845, LA-03583, LA-04032, LA- 08842, LA-09687, LA-11536, LA- 12326, LA-12582



Resource List

Primary No.	Trinomial	Other IDs	Туре	Age	Attribute codes	Recorded by	Reports
P-19-000335	CA-LAN-000335	Resource Name - Morning View Site	Site	Prehistoric	AP02 (Lithic scatter); AP15 (Habitation debris); AP16 (Other)	1965 (C. Singer); 1966 (Charthoff & Colton); 1994 (Robert Wlodarski, HEART); 1998 (C. King, Topanga Anthropological Consultants)	LA-01538, LA- 01724, LA-02834, LA-03099, LA- 03273, LA-03534, LA-03538, LA- 03583, LA-03636, LA-04026, LA- 04375, LA-04376, LA-05311, LA- 08287, LA-08569, LA-08596, LA- 08617, LA-08621, LA-08849, LA- 08918, LA-08978, LA-09885, LA- 09386, LA-09688, LA-10365, LA- 10413, LA-10464, LA-10748, LA- 10847, LA-11508, LA-11563, LA- 11564, LA-11626, LA-12326, LA- 12637, LA-12686
P-19-000513	CA-LAN-000513		Site	Prehistoric	AP02 (Lithic scatter)	1972 (Decker); 1982 (C.A. Singer); 2000 (C. King, Topanga Anthropological Consultants)	LA-01120, LA-01194, LA-01470, LA-01678, LA-02834, LA-02931, LA-03034, LA-03351, LA-03583, LA-03636, LA-04026, LA-05311, LA-05659, LA-08566, LA-08918, LA-10365, LA-10413, LA-10847, LA-11626, LA-12686
P-19-001012	CA-LAN-001012	Resource Name - Equivocado Site	e Site	Prehistoric	AP02 (Lithic scatter)	1979 (Clay A. Singer)	LA-00434, LA- 00549, LA-01538, LA-01646, LA- 02845, LA-06895, LA-08556, LA-12326

Resource List

Primary No.	Trinomial	Other IDs	Туре	Age	Attribute codes	Recorded by	Reports
P-19-001121	CA-LAN-001121		Site	Prehistoric	AP02 (Lithic scatter)	1981 (C.C. Martinez & C.A. Singer); 1999 (C. King, Topanga Anthropological Consultants)	LA-01103, LA- 02834, LA-05267, LA-05280, LA- 05282, LA-08556, LA-08621, LA- 09385, LA-09685, LA- 10847, LA-11508, LA-11563, LA- 11564, LA-12326,
P-19-002048	CA-LAN-002048	Resource Name - CAVALLERI RD. SITE	Site	Prehistoric	AP02 (Lithic scatter); AP15 (Habitation debris)	1992 (Chester King, Topanga Anthropological Consultants)	LA-12773 LA-02845, LA- 03456, LA-03480
P-19-002143	CA-LAN-002143	Resource Name - 30411 PCH; Other - 93-184	Site	Prehistoric	AP02 (Lithic scatter); AP15 (Habitation debris)	1993 (Chester King, Topanga Anthropological Consultants)	LA-02885, LA- 02912, LA-08287, LA-08596, LA- 08617, LA-08849, LA-08978, LA- 09688, LA-10464, LA-10748, LA- 11508, LA-12326, LA-13117
P-19-002153	CA-LAN-002153H	Resource Name - NPS 2; Other - ZUMA WATER SYSTEM	Site	Historic	AH06 (Water conveyance system); AH08 (Dams); AH11 (Walls/fences)	1993 (Chester King, Topanga Anthropological Consultants); 1999 (Chester King, Topanga Anthropological Consultants)	LA-03587, LA- 08842, VN-01462
P-19-002187	CA-LAN-002167 H	Peak octout; Canyon 1956 05-01-51-71	Site	pre historic	Councilions/structure	(99	LITTIC LANGE
P-19-002381	CA-LAN-002381	Resource Name - VS-778.2	Site	Prehistoric	AP02 (Inthic/scatter)	1991 (Dana E. Bleitz and Brad Yocum, CSU Northridge Center for Public Archaeology); 1999 (Chester King, Topanga Anthropological Consultants)	LA-03351, LA- 08918, LA-10365, LA-10413, LA-11626
P-19-002382	CA-LAN-002382	Resource Name - VS-778.4	Site	Prehistoric	AP02 (Lithic scatter); AP12 (Quarry)	1991 (Dana E. Bleitz, CSUN Center for Public Archaeology); 1999 (Chester King, Topanga Anthropological Consultants)	LA-03351, LA- 08918, LA-10365, LA-10413, LA-11626
P-19-002384	CA-LAN-002384	Resource Name - DEB-51	Site	Prehistoric	AP02 (Lithic scatter)	1996 (Dana E. Bleitz and Frank B. Bleitz, Ecofact)	LA-03276, LA- 11508, LA-12326

Resource List

Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-19-002813	CA-LAN-002813	Resource Name - 29700 Baden Place; Other - 00-15	Site	Prehistoric	AP02 (Lithic scatter)	2000 (Chester King, Topanga Anthropological Consultatns)	LA-10415, LA-11508
P-19-002814	CA-LAN-002814	Resource Name - 30228 Morning View; Other - 00-14	Site	Prehistoric	AP02 (Lithic scatter); AP15 (Habitation debris)	1999 (Chester King, Topanga Anthropological Consultants)	LA-04780, LA- 08558, LA-09530, LA-11508
P-19-002816	CA-LAN-002816	Resource Name - 30385 Morning View; Other - 00-13	Site	Prehistoric	AP02 (Lithic scatter)	1998 (Chester King, Topanga Anthropological Consultants)	
P-19-002839	CA-LAN-002839H	Resource Name - AE-AC-2004H	Site	Historic	AH04 (Privies/dumps/trash scatters)	2000 (J. Paniagua, H. Brewer, Applied Earthworks)	LA-07952
P-19-003329	CA-LAN-003329	Resource Name - 2-13:1; Other - 021400A	Site	Prehistoric	AP02 (Lithic scatter)	1999 (Chester King, Topanga Anthropological Consultants)	LA-10210
P-19-100108		Resource Name - VS-778.3	Other	Prehistoric	AP02 (Lithic scatter)	1991 (Dana Bleitz and Brad Yocum, CSUN)	LA-03351, LA- 08918, LA-10365, LA-10413, LA-11626
P-19-100109		Resource Name - VS-778.5	Other	Prehistoric	AP02 (Lithic scatter)	1991 (Dana E. Bleitz and Brad Yocum, CSUN)	LA-03351, LA- 08566, LA-08918, LA-10365, LA- 10413, LA-11626
P-19-100398		Resource Name - 00-6 6020 Bonsall	Other	Prehistoric	AP02 (Lithic scatter)	1996 (C. King, Topanga Anthropological Consultants)	LA-08842
P-19-100399		Resource Name - 00-5 30254 Morning View	Other	Prehistoric	AP02 (Lithic scatter)	1998 (C. King, Topanga Anthropological Consultants)	LA-11508
P-19-100400		Resource Name - 00-4 30601 Morning View #2	Other	Prehiștoric	AP02 (Lithic scatter)	1998 (C. King, Topanga Anthropological Consultants)	LA-08566, LA- 10413, LA-12686
P-19-100401		Resource Name - 00-3 30601 Morning View #1	Other	Prehistoric	AP02 (Lithic scatter)	1998 (C. King, Topanga Anthropological Consultants)	LA-10413, LA-12686
P-19-100428		Resource Name - Waldrip 1	Other	Prehistoric	AP15 (Habitation debris)	2001 (R. Wlodarski, HEART)	LA-05306, LA-11508

APPENDIX C GEOTECHNICAL INVESTIGATION REPORT



GEOTECHNICAL EVALUATION LOWER BUSCH TANK PROJECT MALIBU, CALIFORNIA

PREPARED FOR:

Cannon 3420 Ocean Park Boulevard, Suite 3040 Santa Monica, California 90404

PREPARED BY:

Ninyo & Moore Geotechnical and Environmental Sciences Consultants 475 Goddard, Suite 200 Irvine, California 92618

> April 25, 2012 Project No. 208543001





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Mr. J. Eric Porkert, P.E. Cannon 3420 Ocean Park Boulevard, Suite 3040 Santa Monica, California 90404

Subject: Geotechnical Evaluation

Lower Busch Tank Project

Malibu, California

Dear Mr. Porkert:

In accordance with your request and authorization, Ninyo & Moore has performed a geotechnical evaluation for the proposed new Lower Busch Tank Project located in Malibu, California. This report presents the results of our subsurface evaluation and our conclusions and recommendations regarding the geotechnical aspects of the design and construction of the subject reservoir project.

Ninyo & Moore appreciates the opportunity to be of service on this project.

CERTIFIED

Respectfully submitted, NINYO & MOORE

Michael Mowen, PE Project Engineer

Same Car

awrence Jansen, PG, CEG

Principal Geologist

MPM/LTJ/CAP/DBC/lr/sc

Distribution: (1) Addressee (via e-mail)

Daniel Chu, PhD, PE, GE

Chief Geotechnical Enginee



TABLE OF CONTENTS

			<u>Page</u>
1.	INTRODUC	CTION	1
2.	SCOPE OF	SERVICES	1
3.	SITE DESC	RIPTION	2
4.	PROJECT I	DESCRIPTION	2
5.		ACE EVALUATION AND LABORATORY TESTING	
6.		AND SUBSURFACE CONDITIONS	
		onal Geologic Setting	
		Geology undwater	
7.		G AND SEISMICITY	
		and Rupture	
		and Motion	
		efaction	
	•	amic Settlement	
	7.5. Late:	ral Spreading	8
8.	CONCLUS	IONS	9
9.	RECOMME	ENDATIONS	10
		hwork	
	9.1.1.	Pre-Construction Conference	
	9.1.2.	Clearing and Site Preparation	11
	9.1.3.	Subgrade Preparation for New Storage Tank	
	9.1.4.	Fill Material	
	9.1.5.	Fill Placement and Compaction	12
	9.1.6.	Excavations and Shoring	
	9.1.7.	Excavation Bottom Stability	13
	9.1.8.	Construction Dewatering	14
	9.1.9.	Modulus of Soil Reaction	14
	9.1.10.	Pipe Installation	14
	9.1.11.	Lateral Pressures for Thrust Blocks	15
	9.2. Seisi	mic Design Considerations	15
	9.3. Four	ndations	16
	9.4. Late:	ral Earth Pressures	16
	9.5. Corr	osion	17
		crete Placement	
		ement Section Recommendations	
	9.8. Drai	nage	19

i

Appendix C – Analytical Testing

Appendix D – Liquefaction Analysis Results

10. CONSTRUCTION OBSERVATION	19
11. LIMITATIONS	20
12. REFERENCES	22
Tables	
Table 1 – Principal Active Faults	6
Table 2 – Seismic Design Parameters	
Table 3 – Pavement Design Alternatives	
Figures	
Figure 1 – Site Location	
Figure 2 – Boring and Leach Line Locations	
Figure 3 – Fault Locations	
Figure 4 – Lateral Earth Pressures for Braced Excavation (Granular Soil)	
Figure 5 – Thrust Block Lateral Earth Pressure Diagram	
Figure 6 – Lateral Earth Pressures for Restrained Retaining Walls	
Appendices	
Appendix A – Boring Logs	
Appendix B – Laboratory Testing	

1. INTRODUCTION

In accordance with your request and authorization, we have performed a geotechnical evaluation for the proposed new Lower Busch Tank in Malibu, California. The purpose of our study was to evaluate the soil and geologic conditions on site and provide geotechnical recommendations for the design and construction of the planned reservoir. This report presents our findings, conclusions, and recommendations regarding the subject project.

A previous evaluation of the site was performed by the Geotechnical and Materials Engineering Division of the County of Los Angeles Department of Public Works. A summary of their findings and conclusions was presented in the referenced report (COLA DPW, 2003).

2. SCOPE OF SERVICES

Our scope of services included the following:

- Project coordination and planning, including scheduling of the subsurface exploration.
- Review of readily available background materials, including published geologic maps and literature, stereoscopic aerial photographs, and other materials provided by the client including the geotechnical report prepared by the County.
- Site reconnaissance to locate the borings and test pits, and coordination with Underground Service Alert for underground utility location.
- Subsurface exploration consisting of drilling, sampling, and logging of two small-diameter borings to depths of approximately 26½ feet. A representative of this firm continuously logged the borings. Bulk and relatively undisturbed samples were obtained at selected intervals.
- Excavation of test pits to locate existing leach fields.
- Laboratory testing of selected representative soil samples to evaluate in-situ moisture, expansion index, percentage of particles finer than the No. 200 sieve, R-value, and corrosivity.
- Data compilation and engineering analysis of the information obtained from our background review, subsurface evaluation, and laboratory testing.
- Preparation of this geotechnical report presenting our findings, conclusions, and recommendations for the planned construction.

3. SITE DESCRIPTION

The reservoir site is located at 5731 Busch Drive in Malibu, California (Figure 1). Existing improvements at the site consist of a partially buried, 300,000-gallon-concrete tank, booster pumps and associated underground pipelines, a small concrete masonry block building that houses electrical panels and a restroom, and buried leach lines for the restroom. The existing cylindrical concrete water storage tank has a diameter of approximately 52 feet and a height of approximately 21 feet, including approximately 4 feet buried below grade. Significant cracking of the shell of the existing tank was observed during our site reconnaissance.

The site is located on a relatively flat graded parcel on an elevated wave-cut terrace that slopes gently south. Erosion has dissected the terrace surface resulting in canyon areas east and west of the site. Elevations at the site range from approximately 315 to 320 feet above mean sea level. The site is paved with asphalt concrete, which is old with raveling, cracking, and rutting. Residences border the project site to the north, west, and south with multiple trees located near the property lines. Busch Drive borders the project site to the east.

4. PROJECT DESCRIPTION

We understand that the project will involve demolition of the existing tank and construction of a new tank in its place. Based on information provided by a request for proposal (RFP) issued by the County, the existing tank's concrete wall material is in poor condition due to extensive cracking attributed to an alkali-silica reaction between the cement paste and silica aggregates. Additionally, a previous seismic analysis found that the tank did not meet American Water Works Association (AWWA) standards and is, therefore, structurally inadequate.

The tank design has not yet been completed. Based on information provided by project engineers, we understand that the new tank will consist of a welded-steel tank or reinforced concrete tank supported on a conventional ring foundation. We also understand that the new tank will be constructed with a footprint in the same general vicinity of the existing tank. In addition to the new storage tank, we understand that the pavement surrounding the reservoir will be reconstructed.



5. SUBSURFACE EVALUATION AND LABORATORY TESTING

Our subsurface exploration was conducted on March 20 and March 21, 2012. The subsurface evaluation consisted of the drilling, logging, and sampling of two, 8-inch-diameter, exploratory borings to depths up to of approximately 26½ feet using a truck-mounted drill rig with continuous flight, hollow-stem augers. The approximate locations of the exploratory borings are shown on Figure 2. The purposes of the exploratory borings were to observe the subsurface conditions and to collect bulk and relatively undisturbed samples for laboratory testing. Excavated materials were visually classified in the field and samples were transported to our laboratory for testing. Logs of the exploratory borings are presented in Appendix A.

Additionally, exploratory test pits were excavated to depths of approximately 6 feet using a rubber-tire backhoe. The purpose of the exploratory test pits was to locate existing leach field lines in the southwest portion of the site as indicated on the provided site plan (ASL, 1989). Two leach lines were located in close proximity to locations indicated on the plan at a depth of approximately 5½ feet below the existing grade. Locations of the east ends of the leach fields were staked in the field at the time of the test pit excavations. The approximate locations of the leach field lines are indicated on Figure 2.

Laboratory testing was performed on representative samples to evaluate the in-situ moisture and dry density, expansion index, percentage of particles finer than the No. 200 sieve, R-value, and corrosivity. In-situ moisture and dry density results are presented on the boring logs in Appendix A. The remaining test results are presented in Appendix B.

In accordance with the request of the County, we also performed analytical testing to check for the presence of E. Coli and ammonia near the leach field. Soil samples at various depths from Boring B-2 were evaluated. Results of the analytical testing are presented in Appendix C.



6. GEOLOGY AND SUBSURFACE CONDITIONS

6.1. Regional Geologic Setting

The project site is located within the Transverse Ranges geomorphic province of southern California (Norris and Webb, 1990). The Transverse Ranges include several roughly east-west trending mountain ranges with intervening valleys. Middle to late Cenozoic nonmarine sedimentary rocks overlie a crystalline bedrock complex and have been uplifted and moderately to deeply dissected. Valleys formed by the erosion of sedimentary rocks have been infilled with variable thicknesses of locally derived alluvium. The Transverse Ranges geomorphic province is traversed by several major active faults. The active Malibu Coast fault zone, which is mapped approximately one mile from the site, consists of a series of disconnected, east-west trending fault segments that extend from the southern boundary of the western Transverse Ranges along the Santa Monica Mountains and merges with the active Santa Monica, Hollywood, Raymond Hill, Sierra Madre, and Cucamonga faults of the central Transverse Ranges.

6.2. Site Geology

Materials encountered during our subsurface exploration generally consisted of terrace deposits underlain by formational material. A general description of the subsurface materials is provided below. More detailed descriptions of the subsurface materials are presented in the boring logs in Appendix A.

Terrace deposits were encountered in the exploratory borings to depths ranging from approximately 14½ to 20 feet. The terrace deposits generally consisted of brown and grayish brown, damp to moist, stiff, sandy clay, and reddish brown and yellowish brown, damp to saturated, medium dense to dense, sandy silt, poorly graded sand with silt, silty sand, and clayey sand.

Weakly cemented bedrock of the Trancas Formation was encountered beneath the terrace deposits to the explored depth of approximately 26½ feet. The formational material general-



ly consisted of mottled grayish brown and reddish brown, damp to moist, fine-grained, weakly cemented sandstone.

6.3. Groundwater

Groundwater was encountered during our evaluation at depths of approximately 18 feet in Boring B-1 and approximately 12½ feet in Boring B-2. Groundwater encountered in the borings are suspected to be a result of perched groundwater on the underlying formational bedrock. The California Geological Survey (CGS) (formerly the California Division of Mines and Geology [CDMG]) prepared a historical high groundwater contour map for this area as presented in the Seismic Hazard Evaluation of the Point Dume Quadrangle (CDMG, 2002a). The historical high groundwater elevation is not mapped at the site.

Fluctuations in groundwater levels may be encountered as a result of variations in seasonal precipitation, irrigation, leaking pipes, groundwater pumping, variable soil conditions and other factors.

7. FAULTING AND SEISMICITY

The subject site is not mapped within a State of California Earthquake Fault Zone (formerly known as an Alquist-Priolo Special Studies Zone) (Hart and Bryant, 1997). However, the site is located in a seismically active area, as is the majority of southern California, and the potential for strong ground motion in the project area is considered significant during the design life of the proposed structure. Figure 3 shows the approximate site location relative to the major faults in the region. The active Malibu Coast fault is located approximately 1.1 miles north of the site.

Table 1 lists selected principal known active faults that may affect the subject site and the maximum moment magnitude (M_{max}) as published by Cao, et al. (2003) for the CGS. The approximate fault-to-site distances were calculated using the computer program FRISKSP (Blake, 2001).



Table 1 – Principal Active Faults

Fault	Approximate Fault-to-Site Distance ¹ miles (kilometers)	Maximum Moment Magnitude ² (M _{max})
Malibu Coast	1.1 (1.8)	6.7
Anacapa-Dume	3.8 (6.1)	7.5
Santa Monica	6.5 (10.4)	6.6
Palos Verdes	15.0 (24.1)	7.3
Northridge (East Oak Ridge)	15.7 (25.3)	7.0
Simi-Santa Rosa	15.9 (25.6)	7.0
Oak Ridge (Onshore)	20.6 (33.1)	7.0
Santa Susana	22.9 (36.9)	6.7
Hollywood	23.1 (37.2)	6.4
Oak Ridge (Blind Thrust Offshore)	24.6 (39.6)	7.1
Holser	24.7 (39.8)	6.5
Notes:		

¹Blake, 2001

The principal seismic hazards evaluated at the subject site are surface fault rupture, ground motion, and seismically induced liquefaction. A brief description of these hazards and the potential for their occurrences at the site are discussed below.

7.1. Ground Rupture

Based on our review of the referenced literature and our site reconnaissance, no active faults are known to cross the project site. Therefore, the probability of damage from surface fault rupture is considered to be low. However, cracking of the ground surface as a result of near-by seismic events is possible.

7.2. Ground Motion

The 2010 California Building Code (CBC) recommends that the design of structures be based on the horizontal peak ground acceleration (PGA) having a 2 percent probability of exceedance in 50 years, which is defined as the Maximum Considered Earthquake (MCE).

² Cao et al., 2003

The statistical return period for PGA_{MCE} is approximately 2,475 years. The PGA_{MCE} for the site was calculated as 0.90g using the United States Geological Survey (USGS, 2011) ground motion calculator (web-based). The design PGA was estimated to be 0.60g using the USGS ground motion calculator. These estimates of ground motion do not include near-source factors that may be applicable to the design of structures on site.

7.3. Liquefaction

Liquefaction is the phenomenon in which loosely deposited granular soils with silt and clay contents of less than 35 percent and non-plastic silts located below the water table undergo rapid loss of shear strength when subjected to strong earthquake-induced ground shaking. Ground shaking of sufficient duration results in the loss of grain-to-grain contact due to a rapid rise in pore water pressure, causing the soil to behave as a fluid for a short period of time. Liquefaction is known generally to occur in saturated or near-saturated cohesionless soils at depths shallower than 50 feet below the ground surface. Factors known to influence liquefaction potential include composition and thickness of soil layers, grain size, relative density, groundwater level, degree of saturation, and both intensity and duration of ground shaking.

The site is not located in an area mapped as potentially susceptible to liquefaction (CDMG, 2002b). However, the previous geotechnical evaluation performed by the County indicates that due to the possibility of rising groundwater within the underlying low density, sandy soil layers, there exists a high potential for liquefaction (COLA DPW, 2003). However, no liquefaction analysis was presented in the County report.

We performed liquefaction analysis using the boring and laboratory data, the peak ground acceleration estimated for the design seismic event, and the computer program LiquefyPro (CivilTech Software, 2008). The groundwater level used for the analysis was conservatively estimated at approximately 5 feet below the existing ground surface. We have analyzed the liquefaction potential for Boring B-1 and Boring B-2. Due to the relatively dense nature of the terrace deposits and shallow depth to Trancas Formation, our analysis indicated that the



potential of soil liquefaction on the site is low. Results of our analysis are presented in Appendix D.

7.4. Dynamic Settlement

Dynamic settlement occurs due to the dissipation of excess pore water pressure that develops during the earthquake event. The settlement of liquefied layers triggers settlement in the overlying non-liquefied layers that eventually manifests into ground subsidence. In order to estimate the amount of post-earthquake settlement, the method proposed by Tokimatsu and Seed (1987) is generally used in which the seismically induced cyclic stress ratios and corrected blow counts (N-values) are correlated to the volumetric strain of the soil. The amount of soil settlement during a strong seismic event depends on the thickness of the liquefiable layers and the density and/or consistency of the soils. Based on our analyses described above, approximately ½ inch of post-earthquake dynamic settlement is estimated to occur at the location of Boring B-2.

7.5. Lateral Spreading

Lateral spreading of the ground surface during an earthquake usually takes place along weak shear zones that have formed within a liquefiable soil layer. Lateral spread has generally been observed to take place in the direction of a free-face (i.e., retaining wall, slope, channel), but has also been observed to a lesser extent on ground surfaces with gentle slopes. An empirical model developed by Youd, et al. (2002) is typically used to predict the amount of horizontal ground displacement within a site. For sites located in proximity to a free-face, the amount of lateral ground displacement is strongly correlated with the distance of the site from the free-face. Other factors such as earthquake magnitude, distance from the earthquake epicenter, thickness of the liquefiable layers, and the fines content and particle sizes of the liquefiable layers also affect the amount of lateral ground displacement. Based on the relative density of the potentially liquefiable soil layers, the project site is not considered susceptible to seismically induced lateral spread.



8. CONCLUSIONS

Based on the results of our geotechnical evaluation, it is our opinion the proposed reservoir construction is feasible from a geotechnical perspective. There are no known geotechnical conditions that would preclude the proposed construction provided the recommendations of this report and appropriate construction practices are followed. Construction considerations for the proposed project include the following:

- Excavations in the on-site near-surface soil are anticipated to encounter fine-grained clayey
 and silty soil underlain by granular soils consisting of sand with some gravel. The on-site
 sandy soils should be suitable for re-use as backfill once moisture conditioned to near optimum moisture content. Cobble-size material (diameter of 6 inches or more) may be
 encountered, which should be removed before use as fill.
- Our laboratory expansion index test result indicated that the on-site near-surface sandy clays
 are highly expansive. This clay, if encountered below the existing tank, should be removed
 of off-site.
- The new tank may be located over old utility trenches or other disturbed areas. The new tank should be supported on an approximately 3-foot-thick zone of recompacted fill.
- The granular soils encountered at the site have little cohesion and may be subject to caving.
 These soils should be considered Type C soils in accordance with Occupational Safety and
 Health Administration (OSHA) soil classifications. Trench excavations that are parallel to
 existing pipelines may encounter unstable pipe zone and/or trench backfill zone materials.
 Appropriate shoring systems for these types of soils should be considered during planning.
- In general, excavation of the on-site soil should be feasible with heavy earthmoving equipment in good working order.
- Groundwater was encountered in our exploratory borings at the time of drilling at depths of approximately 12½ and 18 feet. However, fluctuations will occur as a result of seasonal precipitation, irrigation, and other factors. As a result, groundwater may be encountered within open excavations. The contractor should be prepared to take appropriate measures to address the presence of groundwater in excavations.
- Based on our review of published geologic maps and aerial photographs, there are no known active faults, landslides, or other geologic hazards that cross the project site. A design PGA of 0.60g is calculated for the site.



Los Angeles County Statement 111

In accordance with Section 111 of the Los Angeles County Building Code, we are providing our professional opinion regarding the geologic hazards of landsliding, settlement and slippage and their impact on the proposed development. It is our professional opinion that the site for the proposed structures will not be subject to hazards from future landsliding, settlement or slippage, provided the recommendations of this report are incorporated into the design plans and are implemented during construction. Further, it is our opinion that the proposed construction and associated grading will not impact the geologic stability of properties outside the site, provided the recommendations of this report are incorporated into the design plans and are implemented during construction.

9. RECOMMENDATIONS

The recommendations presented in the following sections provide general geotechnical criteria regarding the design and construction of the proposed site improvements. The recommendations are based on the results of our subsurface evaluation and laboratory testing, our review of the referenced geologic materials, and our geotechnical analysis. The proposed work should be performed in conformance with the recommendations presented in this report, project specifications, and appropriate agency standards.

9.1. Earthwork

Based on our understanding of the project, the earthwork at the site is expected to consist of the excavation of buried structures associated with the existing tank, excavations for new tank foundations, trenching and backfilling for new pipelines, subgrade preparation for the new tank, and subgrade preparation for pavement improvements.

9.1.1. Pre-Construction Conference

We recommend that a pre-construction conference be held. The owner and/or their representative, the governing agencies' representatives, the civil engineer, the project



geotechnical consultant, and the contractor should be in attendance to discuss the work plan, project schedule, and earthwork requirements.

9.1.2. Clearing and Site Preparation

Abandoned buried structures associated with the existing tank should be removed and the site should be cleared of abandoned utilities (if present). The site should also be stripped of vegetation, organics, and any loose, wet, or otherwise unstable soils. Materials generated from the clearing operations should be removed from the project site and disposed of at a legal dump site. Obstructions that extend below finished grade should be removed and replaced with compacted fill.

9.1.3. Subgrade Preparation for New Storage Tank

In order to provide suitable support for the proposed storage tank, we recommend that the subgrade soils beneath the new tank foundations be removed and recompacted. The removal and recompaction work should consist of: 1) removing existing on-site soil to a depth of approximately 3 feet below the bearing level of the new foundations, or to the bearing level of the existing foundations, whichever is deeper; 2) scarifying, moisture conditioning, and compacting the upper 6 inches of exposed subgrade soils to 90 percent relative compaction per ASTM D 1557; and 3) replacing with granular fill compacted to 95 percent relative compaction per ASTM D 1557. The appropriate depth of removal should be evaluated in the field during construction by the project geotechnical consultant. The lateral limits of removal should extend beyond the footprint of the wall sufficient to provide a 1:1 (horizontal to vertical) prism of compacted fill beneath the foundations. The highly expansive clay, if encountered below the existing tank and/or within the footprint of the new tank, should be removed and disposed of at a legal dumpsite.

9.1.4. Fill Material

In general, the on-site sandy soils should be suitable for re-use as fill. Fill should be free of trash, debris, roots, vegetation, or other deleterious materials. Fill should generally be



free of rocks or lumps of material in excess of 4 inches in diameter. Oversize cobbles and boulders are not considered suitable to use as structural fill and should be screened out of material for use as fill. Wall backfill should consist of granular, free draining soil that conforms to Greenbook specifications for structure backfill.

If fill is imported to the site, such material should consist of clean, non-expansive, granular material. "Non-expansive" can be classified as having a "very low" expansion potential in accordance with the 2010 CBC (an Expansion Index not greater than 20 in accordance with American Society for Testing and Materials [ASTM] D 4829). The project geotechnical consultant should evaluate the materials prior to import.

9.1.5. Fill Placement and Compaction

Fill placed for support of the new reservoir should be compacted in horizontal lifts to a relative compaction of 95 percent or more as evaluated by the latest edition of ASTM D 1557. Tank backfill and trench backfill should also be compacted in horizontal lifts to a relative compaction of 90 percent or more as evaluated by ASTM D 1557. Fill soils should be moisture conditioned to above the optimum moisture content. The optimum lift thickness of fill will depend on the type of compaction equipment used but generally should not exceed 8 inches in loose thickness. Special care should be taken to avoid pipe damage when compacting trench backfill above pipes. Placement and compaction of the fill soils should be in general accordance with local grading ordinances and good construction practice.

9.1.6. Excavations and Shoring

Based on the subsurface exploration data, we anticipate that excavations should be feasible with heavy earthmoving equipment in good working order. Beneath the near-surface clayey material, the soil is comprised predominantly of silty sand and sandy silt. Steep excavations may be subject to caving. Temporary slopes up to 10 feet in height above groundwater should be stable at inclinations up to approximately 1:1 (horizontal to vertical). Some surficial sloughing may occur and temporary slopes should be evalu-



ated in the field at the time of construction. Temporary excavations should conform to OSHA guidelines.

Excavations that cross or are located parallel to existing pipeline trenches may encounter loose and unstable pipe zone or trench backfill materials that may be subject to caving. The contractor should anticipate potentially unstable conditions and should take appropriate measures to protect existing pipelines and other utilities in place.

We anticipate that the excavations for pipeline trenches will have vertical side walls with shoring. Shoring installed in advance of trenching or simultaneous with the excavation may be appropriate if caving is severe or damage to existing improvements is at risk.

We recommend that temporary braced shoring be designed utilizing the criteria shown on Figure 4. The recommended design lateral earth pressures do not include the loads imposed on the shoring system from raising the ground surface elevation behind the wall, soil stockpiles, construction materials, construction equipment, and other loads acting above a 1:1 (horizontal to vertical) plane extending up and back from the base of the wall. For walls subjected to the above-mentioned surcharge loads, the contractor should include the effects of these loads on the lateral pressures against the wall.

The contractor should retain a qualified and experienced engineer to design the shoring system. The shoring parameters presented in this report are minimum requirements, and the contractor should evaluate the adequacy of these parameters and make the appropriate modifications for their design.

9.1.7. Excavation Bottom Stability

In general, we anticipate that the bottom of the excavations for the tank foundation and pipeline trenches will be relatively stable and should provide suitable support. Excavations that expose soft/loose soils or encounter seepage or perched groundwater may be unstable. In general, unstable bottom conditions may be mitigated by overexcavation



and replacement with compacted crushed aggregate or compacted fill beneath the bottom of the excavation to thicknesses of approximately 1 to 2 feet. If open-graded gravel is used for bottom stabilization, we recommend that the crushed rock be wrapped in filter fabric. Recommendations for stabilizing excavation bottoms should be based on evaluation in the field by the geotechnical consultant at the time of construction.

9.1.8. Construction Dewatering

Groundwater was encountered in our exploratory borings at depths of approximately 12½ and 18 feet below the ground surface at the time of drilling. However, fluctuations will occur as a result of variations in seasonal precipitation, irrigation, leaking pipes, and variable soil conditions. The contractor should be prepared to take appropriate measures in the event that groundwater is encountered during excavation operations. If groundwater is encountered, disposal of groundwater should be performed in accordance with guidelines of the Regional Water Quality Control Board.

9.1.9. Modulus of Soil Reaction

The modulus of soil reaction is used to characterize the stiffness of soil backfill placed at the sides of buried pipelines for the purpose of evaluating deflection caused by the weight of the backfill above the pipe. For pipelines constructed in granular fill and native materials, we recommend that a modulus of soil reaction of 1,200 pounds per square inch be used for design, provided that granular bedding material is placed adjacent to the pipe, as recommended in this report.

9.1.10. Pipe Installation

We recommend that new pipelines be installed in general accordance with the latest edition of the "Greenbook" Standard Specifications for Public Works Construction and the appropriate city/agency standards. The pipeline should be supported on approximately 4 inches of granular bedding material such as crushed aggregate base or sand, and the bedding material should be placed and compacted around the pipe and 12 inches or more above the top of the pipe. Special care should be taken not to allow voids beneath



the pipe. We do not recommend the use of open-graded gravel for pipe zone material due to the potential for migration of fine-grained materials into the gravel zone. However, if gravel is used for pipe zone backfill, we recommend that the gravel be surrounded with a suitable geotextile filter fabric. Granular bedding/pipe zone material should have a sand equivalent of 30 or more. The suitability of soil to be used as bedding/pipe zone material should be evaluated by the geotechnical consultant based on laboratory testing during construction.

9.1.11. Lateral Pressures for Thrust Blocks

Thrust restraint for buried pipelines may be achieved by transferring the thrust force to the soil outside the pipe through a thrust block. Thrust blocks may be designed using the lateral passive earth pressures presented on Figure 5. Thrust blocks should be backfilled with granular backfill material, compacted as outlined in Section 9.1.5.

9.2. Seismic Design Considerations

Design of the proposed improvements should comply with design for structures located in Seismic Zone 4 and should be designed in accordance with the requirements of governing jurisdictions and applicable building codes. Table 2 presents the seismic design parameters for the site in accordance with CBC (2010) guidelines and mapped spectral acceleration parameters (USGS, 2011).

Table 2 – Seismic Design Parameters

Parameters	Values
Site Class	D
Site Coefficient, Fa	1.0
Site Coefficient, F _v	1.5
Mapped Short Period Spectral Acceleration, S _S	2.274g
Mapped One-Second Period Spectral Acceleration, S ₁	0.933g
Short Period Spectral Acceleration Adjusted For Site Class, SMS	2.274g
One-Second Period Spectral Acceleration Adjusted For Site Class, SM1	1.400g
Design Short Period Spectral Acceleration, S _{DS}	1.516g
Design One-Second Period Spectral Acceleration, S _{D1}	0.933g

9.3. Foundations

Based on our project understanding, we anticipate the new storage tank will be supported on a perimeter ring foundation. Recommendations for footing foundations are provided below.

Proposed footings should extend 24 inches or more below the adjacent finished grade and bear on compacted engineered fill. Continuous footings should have a width of approximately 24 inches. Footings should be reinforced in accordance with the recommendations of the project structural engineer.

Footings may be designed using an allowable bearing capacity of 4,000 pounds per square foot (psf). Total and differential settlements for footings designed in accordance with the above recommendations are estimated to be on the order less than 1 inch and ½ inch over a horizontal span of 40 feet, respectively.

Footings bearing in compacted fill may be designed using a coefficient of friction of 0.35, where the total frictional resistance equals the coefficient of friction times the dead load. Foundations may be designed using a passive resistance value of 350 psf per foot of depth, with a maximum value of 3,500 psf. The allowable lateral resistance can be taken as the sum of the frictional resistance and passive resistance provided the passive resistance does not exceed one-half of the total allowable resistance. The bearing capacity and passive resistance (including the maximum value) may be increased by one-third when considering loads of short duration such as wind or seismic forces.

Footings located adjacent to utility trenches should have their bearing surfaces situated below an imaginary 1:1 plane projected upward from the bottom edge of the adjacent utility trench.

9.4. Lateral Earth Pressures

Walls for the below-grade portions of the proposed tank and other below-grade structures may be designed using the lateral earth pressures presented on Figure 6.



The exterior of subsurface walls should be carefully waterproofed. The waterproofing systems, including horizontal and vertical construction joints, should be installed in accordance with the recommendations of the project civil engineer. For wall penetrations at pipe locations, installation of "watertight" seals should be utilized.

9.5. Corrosion

The corrosion potential of the site soils was evaluated based on laboratory testing of a representative sample obtained from our exploratory borings. Laboratory testing was performed to evaluate pH, electrical resistivity, chloride and sulfate content. The laboratory results are presented in Appendix B.

The pH of the tested sample was approximately 8.1, the electrical resistivity was approximately 650 ohm-centimeters, the chloride content was approximately 200 parts per million (ppm), and the sulfate content was approximately 0.015 percent (i.e., 150 ppm). Caltrans (Caltrans, 2003) corrosion criteria define a non-corrosive site as one having earth materials with a pH of 5.5 or more, electrical resistivity of 1,000 ohm-centimeters or more, less than 500 ppm chlorides, and less than 0.20 percent sulfates (i.e., 2,000 ppm). Based on these criteria, results of the electrical resistivity testing indicate that the project site can be classified as corrosive.

We recommend that a corrosion engineer be consulted to further evaluate the corrosion potential of the site and to provide recommendations for structures that may be affected.

9.6. Concrete Placement

In order to reduce the potential for shrinkage cracks in the concrete during curing, we recommend that the concrete be placed with a slump of no more than 4 inches based on ASTM C 143. The slump should be checked periodically at the site by the representative of a qualified materials testing laboratory prior to concrete placement. We also recommend that crack control joints be provided in hardscape (if applicable) in accordance with the recommendations of the project structural engineer to reduce the potential for distress due to minor soil



movement and concrete shrinkage. Structural concrete should be placed in accordance with the guidelines of the American Concrete Institute (ACI, 2005), CBC (CBC, 2010) and relevant project specifications.

Concrete in contact with soil or water containing high concentration of soluble sulfates can be subject to chemical and/or physical deterioration. Based on the CBC criteria, the potential for sulfate attack is negligible for water-soluble sulfate contents in soil ranging from 0.00 to 0.10 percent by weight. As indicated above, the soil sample tested for this evaluation indicates a water-soluble sulfate content of approximately 0.015 percent. Accordingly, the onsite soils are considered to have a negligible potential for sulfate attack. However, due to the potential variability of the soil conditions at the site, we recommend that Type V cement be considered for the project.

9.7. Pavement Section Recommendations

The pavement section recommendations presented herein are based on our subsurface exploration, laboratory testing, and pavement analysis. We have assumed a traffic index of 5, which represents a traffic loading condition typically associated with infrequent heavy truck traffic. Ninyo & Moore should be contacted for further recommendations if a design traffic index other than that selected for this analysis is used.

For pavement design, we used the design methodology presented in the California Department of Transportation (Caltrans) Highway Design Manual (Caltrans, 2006) and the Caltrans computer program "CalFP Ver 1.1." In our design we used an R-value of 5, the assumed TI value of 5, and a 20-year design life. Our pavement sections are provided in Table 3.

Table 3 – Pavement Design Alternatives

Traffic Index		Flexible Pavement		
(TI)	R-Value	AC/CAB	Full Depth AC	
(11)		(inches)	(inches)	
5.0	5	4.0/8.0	7.0	
Notes:				
AC – Asphalt Concre				
CAB – Crushed Agg	regate Base			



Prior to the placement of crushed aggregate base (CAB) materials, we recommend that the top 12 inches of subgrade soils be scarified and recompacted to a relative compaction of 90 percent as evaluated by ASTM D 1557. If full-depth asphalt concrete pavement is used, we recommend that the subgrade soils be recompacted to a relative compaction of 95 percent. Base materials should be placed and compacted to a relative compaction of 95 percent as evaluated by ASTM D 1557. Base materials should generally be placed in lifts not exceeding 8 inches in uncompacted thickness. Asphalt concrete (AC) should be placed and compacted to a relative compaction of 95 percent as evaluated by California Test (CT) method 304.

Updated pavement sections should be based on actual anticipated traffic loading conditions and evaluation of the subgrade materials at the time of construction. We recommend that the paving operations be observed and tested by the project geotechnical consultant. We further recommend that mix designs be made for the asphalt concrete by an engineering company specialized in this type of work.

9.8. Drainage

Adequate surface drainage is imperative for satisfactory site performance. Positive drainage should be provided and maintained to direct surface water away from the proposed tank. Positive drainage is defined as a slope of 2 percent or more for a distance of 5 feet or more away from foundations and tops of slopes. Runoff should then be directed by the use of swales or pipes into a collective drainage system. We recommend that structures have roof drains and downspouts installed to collect runoff. Surface water should not be allowed to flow over slope faces or to pond adjacent to footings. Area drains for landscaped and paved areas are recommended.

10. CONSTRUCTION OBSERVATION

The geotechnical consultant should observe and test fill placement and compaction. Project plans should also be reviewed by the geotechnical consultant prior to the start of construction.



The recommendations provided in this report are based on the assumption that Ninyo & Moore will provide geotechnical observation and testing services during construction. In the event that the services of Ninyo & Moore are not utilized during construction, we request that the selected consultant provide the owner with a letter (with a copy to Ninyo & Moore) indicating that they fully understand Ninyo & Moore's recommendations and that they are in full agreement with the design parameters and recommendations contained in this report.

11. LIMITATIONS

The field evaluation, laboratory testing, and geotechnical analyses presented in this report have been conducted in accordance with current engineering practice and the standard of care exercised by reputable geotechnical consultants performing similar tasks in this area. No warranty, expressed or implied, is made regarding the conclusions, recommendations, and professional opinions expressed in this report. Variations may exist and conditions not observed or described in this report may be encountered during construction.

This document is intended to be used only in its entirety. No portion of the document, by itself, is designed to completely represent any aspect of the project described herein. Ninyo & Moore should be contacted if the reader requires additional information or has questions regarding the content, interpretations presented, or completeness of this document.

The conclusions and recommendations presented in this report are based on analysis of observed conditions in two exploratory borings. If conditions are found to vary from those described in this report, the geotechnical consultant should be notified and additional recommendations will be provided upon request. It should be understood that the conditions of a site can change with time as a result of natural processes or the activities of man at the subject site or nearby sites. In addition, changes to the applicable laws, regulations, codes, and standards of practice may occur due to government action or the broadening of knowledge. The findings of this report may, therefore, be invalidated over time, in part or in whole, by changes over which Ninyo & Moore has no control.



This report is intended exclusively for use by the client. Any use or reuse of the findings, conclusions, and/or recommendations of this report by parties other than the client is undertaken at said parties' sole risk.



12. REFERENCES

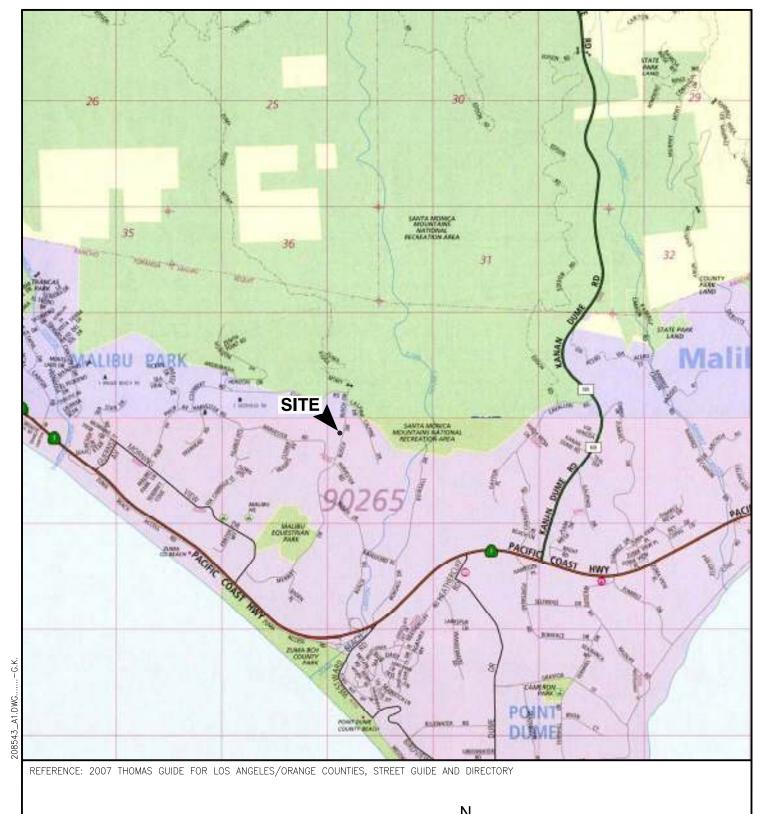
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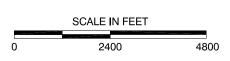


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	AEF	RIAL PHOTOGRA	PHS	
Source Date Flight Numbers Scale				
USDA	11-3-52	AKJ-1K	50 & 51	1:20,000



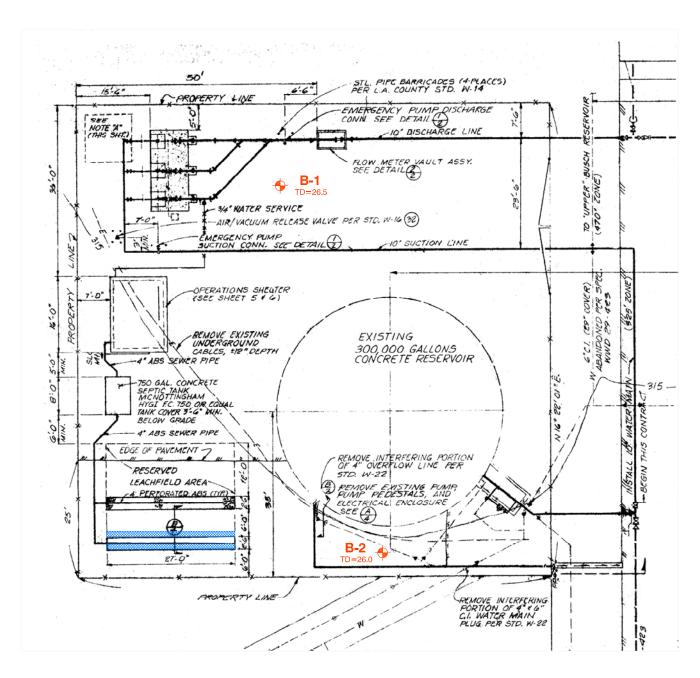




NOTE: DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE. Map $\mbox{\textcircled{@}}$ Rand McNally, R.L.07-S-129

<i>Ninyo & M</i> oore		SITE LOCATION	FIGURE
PROJECT NO.	DATE	LOWER BUSCH TANK	1
208543001	4/12	MALIBU, CALIFORNIA	

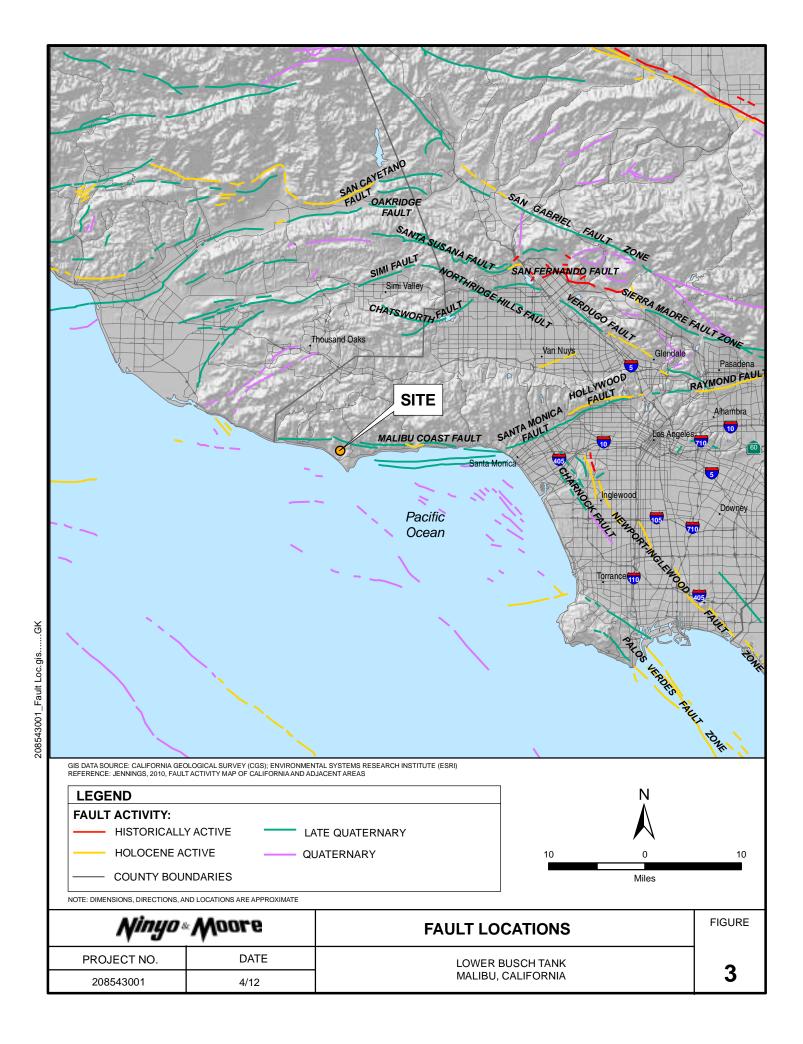
NOTE: DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

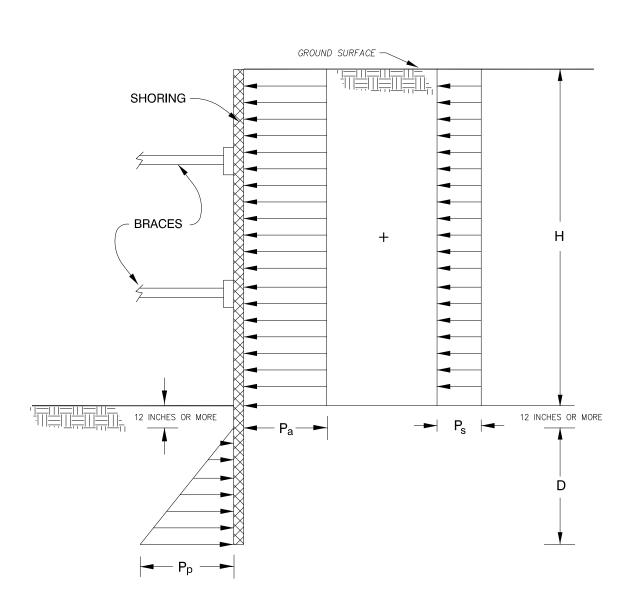


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<i>Ninyo</i> « Moore		BORING AND LEACH LINE LOCATIONS	FIGURE
PROJECT NO.	DATE	LOWER BUSCH TANK	2
208543001	4/12	MALIBU, CALIFORNIA	



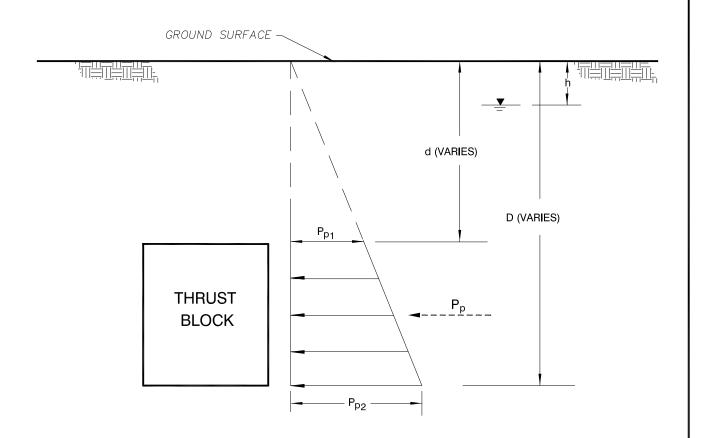


NOTES:

- 1. APPARENT LATERAL EARTH PRESSURE, P_a = 24H psf
- 2. CONSTRUCTION TRAFFIC INDUCED SURCHARGE PRESSURE, $P_{\rm S}$ = 120 psf
- 3. PASSIVE LATERAL EARTH PRESSURE, $P_{\!p}$ = 350D psf
- 4. ASSUMES GROUNDWATER IS NOT PRESENT
- 5. SURCHARGES FROM EXCAVATED SOIL OR CONSTRUCTION MATERIALS ARE NOT INCLUDED
- 6. H AND D ARE IN FEET

NOT TO SCALE

<i>Ninyo</i> & Moore		LATERAL EARTH PRESSURES FOR BRACED EXCAVATION (GRANULAR SOIL)	FIGURE
PROJECT NO.	DATE	LOWER BUSCH TANK	Λ
208543001	4/12	MALIBU, CALIFORNIA	4



NOTES:

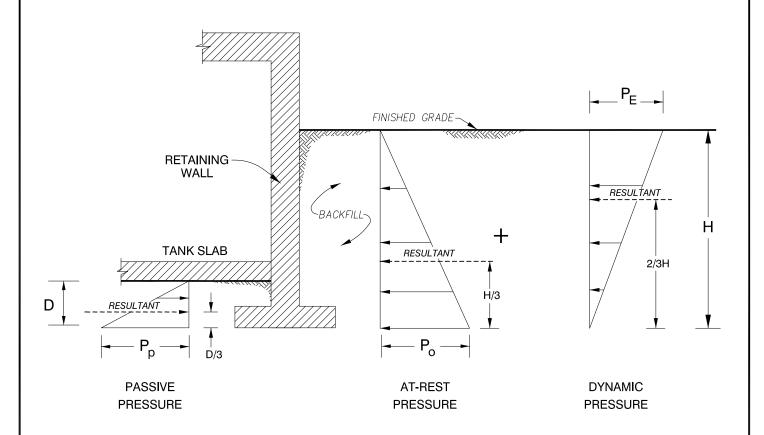
- 1. GROUNDWATER BELOW BLOCK
 - $P_p = 175 (D^2 d^2) lb/ft$
- 2. GROUNDWATER ABOVE BLOCK

 $P_{p} = 1.50 \text{ (D - d)[} 124.8\text{h} + 0.58 \text{ (D+d)] } \text{lb/ft}$

- 3. ASSUMES BACKFILL IS GRANULAR MATERIAL
- 4. ASSUMES THRUST BLOCK IS ADJACENT TO COMPETENT MATERIAL
- 5. D, d AND h ARE IN FEET
- 6. GROUNDWATER TABLE

NOT TO SCALE

<i>Ninyo & Moore</i>		THRUST BLOCK LATERAL EARTH PRESSURE DIAGRAM	FIGURE
PROJECT NO.	DATE	LOWER BUSCH TANK	5
208543001	4/12	MALIBU, CALIFORNIA	J



NOTES:

- ASSUMES NO HYDROSTATIC PRESSURE BUILD-UP BEHIND THE RETAINING WALL
- 2. STRUCTURAL, GRANULAR BACKFILL MATERIALS
 AS SPECIFIED IN GREENBOOK SHOULD BE USED
 FOR RETAINING WALL BACKFILL
- 3. DRAINS AS RECOMMENDED IN THE RETAINING WALL DRAINAGE DETAIL SHOULD BE INSTALLED BEHIND THE RETAINING WALL
- 4. DYNAMIC LATERAL EARTH PRESSURE IS BASED ON A PEAK GROUND ACCELERATION OF 0.60g
- 5. SURCHARGE PRESSURES CAUSED BY VEHICLES OR NEARBY STRUCTURES ARE NOT INCLUDED
- 6. H AND D ARE IN FEET

RECOMMENDED GEOTECHNICAL DESIGN PARAMETERS

Lateral Earth Pressure	Equivalent Fluid Pressure (lb/ft²/ft) ⁽¹⁾	
Po	Level Backfill with Granular Soils ⁽²⁾	2H:1V Sloping Backfill with Granular Soils (2)
'0	56 H	82 H
P _E	26 H	34 H
P _p	Level Ground	2H:1V Descending Ground
• р	350 D	150 D

NOT TO SCALE

<i>Ninyo</i> & Moore		LATERAL EARTH PRESSURES FOR RESTRAINED RETAINING WALLS	FIGURE
PROJECT NO.	DATE	LOWER BUSCH TANK	6
208543001	4/12	MALIBU, CALIFORNIA	O

APPENDIX A

BORING LOGS

Field Procedure for the Collection of Disturbed Samples

Disturbed soil samples were obtained in the field using the following methods.

Bulk Samples

Bulk samples of representative earth materials were obtained from the exploratory excavations. The samples were bagged and transported to the laboratory for testing.

The Standard Penetration Test (SPT) Spoon

Disturbed drive samples of earth materials were obtained by means of a Standard Penetration Test spoon sampler. The sampler is composed of a split barrel with an external diameter of 2 inches and an unlined internal diameter of 1-3/8 inches. The spoon was driven into the ground 12 to 18 inches with a 140-pound hammer free-falling from a height of 30 inches in general accordance with ASTM D 1586-99. The blow counts were recorded for every 6 inches of penetration; the blow counts reported on the logs are those for the last 12 inches of penetration. Soil samples were observed and removed from the spoon, bagged, sealed and transported to the laboratory for testing.

Field Procedure for the Collection of Relatively Undisturbed Samples

Relatively undisturbed soil samples were obtained in the field using the following method.

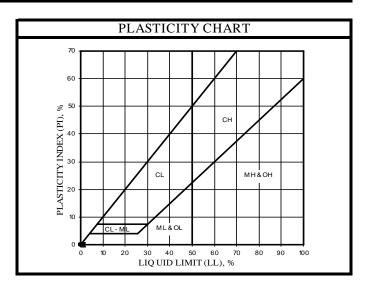
The Modified Split-Barrel Drive Sampler

The sampler, with an external diameter of 3.0 inches, was lined with 1-inch-long, thin brass rings with inside diameters of approximately 2.4 inches. The sample barrel was driven into the ground with the weight of a hammer or the kelly bar of the drill rig in general accordance with ASTM D 3550-84. The driving weight was permitted to fall freely. The approximate length of the fall, the weight of the hammer or bar, and the number of blows per foot of driving are presented on the boring logs as an index to the relative resistance of the materials sampled. The samples were removed from the sample barrel in the brass rings, sealed, and transported to the laboratory for testing.



U.S.C.S. METHOD OF SOIL CLASSIFICATION				
MA	AJOR DIVISIONS	SYM	BOL	TYPICAL NAMES
		× 701	GW	Well graded gravels or gravel-sand mixtures, little or no fines
70	GRAVELS (More than 1/2 of coarse		GP	Poorly graded gravels or gravel-sand mixtures, little or no fines
COARSE-GRAINED SOILS (More than 1/2 of soil > No. 200 Sieve Size)	fraction > No. 4 sieve size		GM	Silty gravels, gravel-sand-silt mixtures
ARSE-GRAINED SO (More than 1/2 of soil > No. 200 Sieve Size)			GC	Clayey gravels, gravel-sand-clay mixtures
SE-GR ore than Io. 200			SW	Well graded sands or gravelly sands, little or no fines
COAR (May > N	SANDS (More than 1/2 of coarse		SP	Poorly graded sands or gravelly sands, little or no fines
	fraction < No. 4 sieve size		SM	Silty sands, sand-silt mixtures
			SC	Clayey sands, sand-clay mixtures
			ML	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity
OIL.S soil ize)	SILTS & CLAYS Liquid Limit <50		CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays
NED S n 1/2 of sieve s			OL	Organic silts and organic silty clays of low plasticity
FINE-GRAINED SOIL.S (More than 1/2 of soil < No. 200 sieve size)			МН	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts
FINE (Mc	SILTS & CLAYS Liquid Limit >50		СН	Inorganic clays of high plasticity, fat clays
			ОН	Organic clays of medium to high plasticity, organic silty clays, organic silts
Н	IGHLY ORGANIC SOILS		Pt	Peat and other highly organic soils

GRAIN SIZE CHART			
	RANGE (OF GRAIN	
CLASSIFICATION	U.S. Standard Sieve Size	Grain Size in Millimeters	
BOULDERS	Above 12"	Above 305	
COBBLES	12" to 3"	306 to 76.2	
GRAVEL	3" to No. 4	76.2 to 4.76	
Coarse	3" to 3/4"	76.2 to 19.1	
Fine	3/4" to No. 4	19.1 to 4.76	
SAND	No. 4 to No. 200	4.76 to 0.075	
Coarse	No. 4 to No. 10	4.76 to 2.00	
Medium	No. 10 to No. 40	2.00 to 0.420	
Fine	No. 40 to No. 200	0.420 to 0.075	
SILT & CLAY	Below No. 200	Below 0.075	





U.S.C.S. METHOD OF SOIL CLASSIFICATION

∥ ⊨ ⊢	Driven SAMPLES		MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	ВОР	ORING LOG EXPLANATION SHEET					
0							Bulk sample.						
							Modified split-barrel	drive sampler.					
							No recovery with mo	dified split-barrel dri	ve sampler.				
							Sample retained by o	thers.					
							Standard Penetration	Test (SPT).					
5 —	7						No recovery with a S	PT.					
	XX/	XX					Shelby tube sample.	Distance pushed in in	ches/length of sample	e recovered in inches.			
							No recovery with Shelby tube sampler.						
							Continuous Push Sample.						
10-			Ş ∑				Seepage.						
			<u>=</u>				Groundwater encountered during drilling. Groundwater measured after drilling.						
						SM	MAJOR MATERIAL TYPE (SOIL): Solid line denotes unit change.						
 		-+				CL	Dashed line denotes	material change.					
+							Attitudes: Strike/Dip b: Bedding						
15—							c: Contact j: Joint						
							f: Fracture F: Fault						
							cs: Clay Seam s: Shear bss: Basal Slide Surfa	200					
							sf: Shear Fracture	ace					
1 +	+						sz: Shear Zone sbs: Shear Bedding Surface						
	The total depth line is a solid line that is drawn at the bottom of the boring.									the boring.			
20									BORING LO	3			
<i>Minuo</i> « Moore						Mo	ore		Explanation of Boring Log Sy				
	* *		V		#	7		PROJECT NO.	DATE Rev. 11/11	FIGURE			

	LES						DATE DRILLED	3/20/12	BORING	NO.		B-1	
eet)	SAMPLES	10C	(%)	(PCF		NOIT.		ION 318' ± (MSL)		SHEET			2
DEPTH (feet)		BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	METHOD OF DRIL	LING 8" Hollow-Stem A	auger (Martini I	Orilling)			
DEP	Bulk Driven	BLO	SIOM		S	LASS U.	DRIVE WEIGHT _	140 lbs. (Auto. Trip I	Iammer)	DROP		30"	
						J	SAMPLED BY	MPM LOGGED BY DESCRIPTION		REVIEWEI ATION	D BY _	CA	<u>P</u>
0						SM	ASPHALT CONCR Approximately 4 inc	ETE: ches thick.					
						СН	BASE:	mp, medium dense, si	lty SAND; tr	ace gravel	; appro	oximatel	ly 4½
							inches thick. TERRACE DEPOS	ITS:					
							Dark grayish brown	, moist, stiff, sandy CI	LAY.				
									=-, ==				
						SC	Reddish brown, moi	st, medium dense, cla	yey SAND.				
5 -		27	16.8	109.7									
		21	10.6	109.7									
							Reddish brown, moi	st, medium dense, san	dy SILT with	n clay.		- — — —	- — — — –
		16	22.7										
		10	22.,										
10-						SP-SM	Yellowish brown, da	amp, medium dense, p	oorly graded	SAND w	ith silt.	- — — — ·	- — — — –
		37	5.1										
	+I	23					Trace gravel; dense.						
	\mathbb{H}												
15 -													
		58	27.8				Grayish brown.						
	□ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □												
20_							<u> </u>		D\DIN	$\frac{1}{2}$			
	A	VII	71	10	8c j	Mo	ore		LOWER BU MALIBU, C	SCH TANK			
	*	7	U		#	* • •		PROJECT NO. 208543001	DATE 4/12			FIGURE A-1	

	SJ-			(-			DATE DRILLED 3/20/12	BORING NO.		B-1				
(feet)	SAMPLES	T00	(%)	/ (PCF		NOI.	GROUND ELEVATION 318' ± (MSL)	SHEET	2	OF _	2			
DEPTH (feet)		BLOWS/FOOT	MOISTURE (%)	(TISN	SYMBOL	IFICA S.C.S	METHOD OF DRILLING 8" Hollow-Stem Au	ıger (Martini Drilling)						
H H	Bulk	BLOV	MOIS	DRY DENSITY (PCF)	S	CLASSIFICATION U.S.C.S.	DRIVE WEIGHT140 lbs. (Auto. Trip Ha	ammer) DROP		30"				
						O	SAMPLED BY MPM LOGGED BY	<u>MPM</u> REVIEW	ED BY _	CA	<u>P</u>			
20		41	18.3				TRANCAS FORMATION: Mottled grayish brown, saturated weakly co SANDSTONE.		yey fine-	-grainec	i			
25 -														
25		42												
-							Γotal Depth = 26.5 feet.							
-				ng. on 3/20	/12.									
-							Note: Groundwater may rise to a level higher than that measured in borehole due to seasonal variations in precipitation and several other factors as discussed in the report.							
-														
30 -														
-														
-	H													
35 -	H													
-														
-														
-														
-														
40								BORING LOG						
		1//	\mathbb{Z}_{ℓ}^{ℓ}	Ø.	& J	MΘ	DF-C	LOWER BUSCH TAN MALIBU, CALIFORN	K	FIGURE				
	_	₹	W			7	PROJECT NO. 208543001	DATE 4/12		FIGURE	:			

				,	_															
	LES			(F)			DATE DRILLED	3/20/12	BORIN	IG NO		B-2								
et)	SAMPLES	TO	(%)	(PCF	١.	NOI .		ION 316' ± (MSL)		SHEET	1	OF	2							
DEPTH (feet)		BLOWS/FOOT	IURE	\TIS\	SYMBOL	IFICA S.C.S	METHOD OF DRIL	LING 8" Hollow-Stem A	uger (Martin	i Drilling)										
DEP.	Bulk Driven	BLOV	MOISTURE (%)	DRY DENSITY (PCF)	SY	CLASSIFICATION U.S.C.S.	DRIVE WEIGHT _	140 lbs. (Auto. Trip H	ammer)	DROP		30"								
			_	DR		O	SAMPLED BY	MPM LOGGED BY			D BY	CA	ΔP							
0							ASPHALT CONCR	DESCRIPTION/	INTERPRE	ETATION										
						SM	Approximately 3 inc													
-						CH	BASE: Gray damp mediur	n dense, silty SAND; t	race grave	l· approxim	ately 3	inches	thick							
							TERRACE DEPOS	ITS:		., , <u></u>		11101103	<u>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</u>							
							Brown, damp to mo	ist, stiff, sandy CLAY.												
-																				
-																				
5 -			<u> </u>				Raddish brown mo	st, medium dense, clay	IOV CAND											
		12	18.8			SC	Reddish blown, mor	ist, medium dense, ciay	ey SAND	•										
-		12	10.0																	
_			<u>L</u>				L													
	SM Reddish brown, damp, medium dense, silty SAND; trace clay.																			
-		26	11.2	108.4																
		20	11.2	100.4																
-																				
10-			<u> </u>				Vallavich harven d	amp, medium dense, pe		A CAND.	. <u></u>									
		19				SP-SM	renowish brown, d	amp, medium dense, po	oorly grade	EU SAND W	/IIII SIII	•								
-		19																		
			 				@ 12.5's Crossed was	com an accentance de caterna	tod											
-		28	23.5	05.2			Grayish brown.	er encountered; satural	ied.											
		20	23.3	95.2	95.2	93.2	93.2	93.2	95.2	95.2	95.2	95.2			Grayion brown.					
-																				
15 -							TRANCAS FORMA	ATION: wn, saturated, weakly o	cemented	silty fine-o	rained	SANDS	TONE							
		88	11.2				Thomas readish of	, saturatou, weakly (comonicu,	oney mic-gi	ameu i	J. 11 1DD	TOTAL.							
-		00	11.2																	
-		64																		
		04																		
-																				
20																				
	Į.	11	72 /		ė A	AAn		BORING LOG LOWER BUSCH TANK												
	MALIBU, CALIFORNIA PROJECT NO. DATE FIGURE																			
		.T						208543001	4/12			A-3								

	PLES			(-			DATE DRILLED3/20/12 BORING NO	B-2					
eet)	SAMPLES)OT	(%) :	/ (PCF		NOIT :	GROUND ELEVATION 316' ± (MSL) SHEET	2 OF2					
DEPTH (feet)		BLOWS/FOOT	MOISTURE (%)	NSIT	SYMBOL	SIFICA S.C.S	METHOD OF DRILLING 8" Hollow-Stem Auger (Martini Drilling)						
DEP	Bulk Driven	BLO\	MOIS	DRY DENSITY (PCF)	S	CLASSIFICATION U.S.C.S.	DRIVE WEIGHT 140 lbs. (Auto. Trip Hammer) DROP	30"					
						O	SAMPLED BY <u>MPM</u> LOGGED BY <u>MPM</u> REVIEW DESCRIPTION/INTERPRETATION	ED BY <u>CAP</u>					
20		24					TRANCAS FORMATION: (Continued) Reddish brown, saturated weakly cemented, fine-grained SANI	OSTONE.					
_		76/11"											
30 -							Total Depth = 26 feet. Groundwater encountered at approximately 12.5 feet during dri Boring backfilled with bentonite mix to approximately 10 feet a on-site soils on 3/21/12. Note: Groundwater may rise to a level higher than that measured in be variations in precipitation and several other factors as discussed	and then backfilled with					
35 -													
40													
	j		<i>711</i>	TA.	e. 1	Mo	LOWER BUSCH TAN	BORING LOG LOWER BUSCH TANK					
	J	7"	7			1.	PROJECT NO. DATE	FIGURE					
d		A						Δ_Λ					

APPENDIX B

LABORATORY TESTING

Classification

Soils were visually and texturally classified in accordance with the Unified Soil Classification System (USCS) in general accordance with ASTM D 2488-93. Soil classifications are indicated on the logs of the exploratory excavations in Appendix A.

Moisture Content

The moisture content of samples obtained from the exploratory excavations was evaluated in accordance with ASTM D 2216-92. The test results are presented on the logs of the exploratory excavations in Appendix A.

200 Wash

An evaluation of the percentage of particles finer than the No. 200 sieve in selected soil samples was performed in general accordance with ASTM D 1140-00. The results of the tests are presented on Figure B-1.

Atterberg Limits

Tests were performed on a selected representative fine-grained soil sample to evaluate the liquid limit, plastic limit, and plasticity index in general accordance with ASTM D 4318-05. These test results were utilized to evaluate the soil classification in accordance with the Unified Soil Classification System. The test results and classifications are shown on Figure B-2.

Direct Shear Test

A direct shear test was performed on relatively undisturbed sample in general accordance with ASTM D 3080-04 to evaluate the shear strength characteristics of selected materials. The samples were inundated during shearing to represent adverse field conditions. The results are shown on Figure B-3.

Expansion Index Tests

The expansion index of selected materials was evaluated in general accordance with ASTM D 4829. Specimens were molded under a specified compactive energy at approximately 50 percent saturation (plus or minus 1 percent). The prepared 1-inch thick by 4-inch diameter specimens were loaded with a surcharge of 144 pounds per square foot and were inundated with water. Readings of volumetric swell were made for a period of 24 hours. The results of these tests are presented on Figure B-4.



R-Value

The resistance value, or R-value, for site soils was evaluated in general accordance with California Test (CT) 301. Samples were prepared and evaluated for exudation pressure and expansion pressure. The equilibrium R-value is reported as the lesser or more conservative of the two calculated results. The test results are shown on Figure B-5.

Soil Corrosivity Tests

Soil pH, and minimum resistivity tests were performed on representative samples in general accordance with CT 643. The chloride content of selected samples was evaluated in general accordance with CT 422. The sulfate content of selected samples was evaluated in general accordance with CT 417. The test results are presented on Figure B-6.



SAMPLE LOCATION	SAMPLE DEPTH (FT)	DESCRIPTION	PERCENT PASSING NO. 4	PERCENT PASSING NO. 200	USCS (TOTAL SAMPLE)
B-1	7.5-9.0	SANDY SILT	99	51	ML
B-1	12.5-14.0	POORLY GRADED SAND WITH SILT	96	9	SP-SM
B-2	7.5-9.0	SILTY SAND	100	27	SM
B-2	10.0-11.5	POORLY GRADED SAND WITH SILT	99	9	SP-SM
		; -			

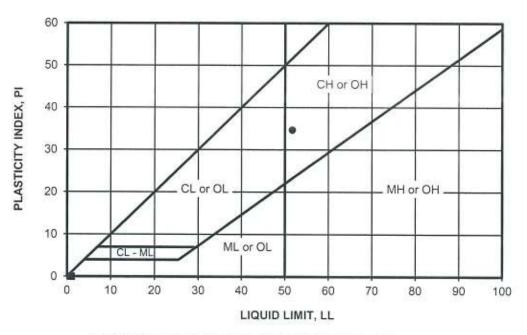
PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 1140

Ninyo .	Noore	NO. 200 SIEVE ANALYSIS	FIGURE
PROJECT NO.	DATE	LOWER BUSCH TANK	
208543001	4/12	MALIBU. CALIFORNIA	B-1

\$3

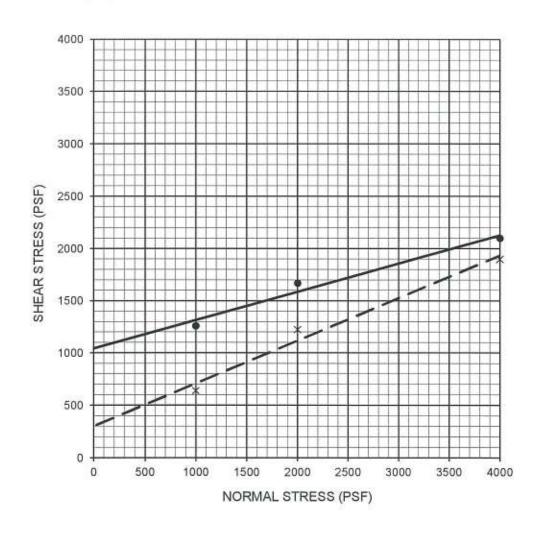
SYMBOL	LOCATION	DEPTH (FT)	LIQUID LIMIT, LL	PLASTIC LIMIT, PL	PLASTICITY INDEX, PI	USCS CLASSIFICATION (Fraction Finer Than No. 40 Sieve)	USCS (Entire Sample)
•	B-2	5.0-6.5	52	17	35	СН	SC

NP - INDICATES NON-PLASTIC



PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 4318

<i>Ninyo</i> « Moore		ATTERBERG LIMITS TEST RESULTS		
PROJECT NO.	DATE	LOWER BUSCH TANK	1	
208543001	4/12	MALIBU, CALIFORNIA	B-2	



Description	Symbol	Sample Location	Depth (ft)	Shear Strength	Cohesion, c (psf)	Friction Angle, φ (degrees)	Soil Type
CLAYEY SAND	-	B-1	5.0-6.5	Peak	1044	15	sc
CLAYEY SAND	x	B-1	5.0-6.5	Ultimate	300	22	sc

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 3080

<i>Minyo</i> «Moore		DIRECT SHEAR TEST RESULTS	FIGURE
PROJECT NO.	DATE	LOWER BUSCH TANK MALIBU, CALIFORNIA	B 2
208543001	4/12	White, Ohli Siden	D-3

SAMPLE	SAMPLE DEPTH (FT)	INITIAL MOISTURE (%)	DRY DENSITY (PCF)	FINAL MOISTURE (%)	VOLUMETRIC SWELL (IN)	EXPANSION INDEX	POTENTIAL
B-1	1.0-4.0	13.5	97.3	33.8	0.102	102	High

PERFORMED IN GENERAL ACCORDANCE WITH UBC STANDARD 18-2 ASTM D 4829

<i>Minyo & Moore</i>		EXPANSION INDEX TEST RESULTS	FIGURE
PROJECT NO.	DATE	LOWER BUSCH TANK	B-4
208543001	4/12	MALIBU, CALIFORNIA	

SAMPLE LOCATION	SAMPLE DEPTH (FT)	SOIL TYPE	R-VALUE
B-2	1.0-5.0	СН	5
	-		

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 2844-01/CT 301

<i>Ninyo « Moore</i>		R-VALUE TEST RESULTS		
PROJECT NO.	DATE	LOWER BUSCH TANK MALIBU, CALIFORNIA	B-5	
208543001	4/12	MALIBU, CALIFORNIA	Wite-Ch. State	

100

SAMPLE	SAMPLE DEPTH	pH ¹	RESISTIVITY 1	SULFATE (SULFATE CONTENT ²		
LOCATION	(FT)	pn	(Ohm-cm)	(ppm)	(%)	CONTENT (ppm)	
B-1	1.0-4.0	8.1	650	150	0.015	200	

- 1 PERFORMED IN GENERAL ACCORDANCE WITH CALIFORNIA TEST METHOD 643
- PERFORMED IN GENERAL ACCORDANCE WITH CALIFORNIA TEST METHOD 417
- ³ PERFORMED IN GENERAL ACCORDANCE WITH CALIFORNIA TEST METHOD 422

<i>Ninyo «</i> Moore		CORROSIVITY TEST RESULTS	FIGURE
PROJECT NO.	DATE	LOWER BUSCH TANK	D 6
208543001	4/12	MALIBU, CALIFORNIA	D-0

Appendix C Lab Results



Client Name:Ninyo & Moore Contact:Michael Mowen Address:475 Goddard, #200 Irvine, CA 92618-4622

Report Date:30-Mar-2012

Project Number:

Page 1 of 3

Project Name: Ninyo & Moore- Soil Contamination

7°C

r: Lower Busch Tank - Malibu

Work Order Number: B2C2410

Analytical Report:

Received on Ice (Y/N): Yes Temp:

Attached is the analytical report for the sample(s) received for your project. Below is a list of the individual sample descriptions with the corresponding laboratory number(s). Also, enclosed is a copy of the Chain of Custody document (if received with your sample(s)). Please note any unused portion of the sample(s) may be responsibly discarded after 30 days from the above report date, unless you have requested otherwise.

Thank you for the opportunity to serve your analytical needs. If you have any questions or concerns regarding this report please contact our client service department.

Sample Identification

Lab Sample # Client Sample ID	<u>Matrix</u>	Date Sampled	<u>By</u>	Date Submitted	<u>By</u>
B2C2410-01 B-2 @ 5'ROUTINE	Solid	03/20/12 13:00	Mike Moore	03/22/12 16:30	Mike Moore
B2C2410-02 B-2 @ 10'ROUTINE	Solid	03/20/12 13:00	Mike Moore	03/22/12 16:30	Mike Moore
B2C2410-03 B-2 @ 15'ROUTINE	Solid	03/20/12 13:00	Mike Moore	03/22/12 16:30	Mike Moore



Environmental Laboratories est 1906

Client Name:Ninyo & Moore Contact:Michael Mowen Address:475 Goddard, #200 Irvine, CA 92618-4622

Report Date:30-Mar-2012

Analytical Report: Page 2 of 3

Project Name: Ninyo & Moore- Soil Contamination

Project Number: Lower Busch Tank - Malibu

Work Order Number: B2C2410

Received on Ice (Y/N): Yes Temp: $7^{\circ}C$

		Result	RDL	Units	Method A	nalysis Date	Analyst	Flag
B2C2410-01	Sampled: 03/20/12 13.	.00						
B-2 @ 5'	Gampiou. 66/26/72 16:	.00						
		ND	4.0					NI MEN
Ammonia-Nitroger	1	ND	1.0	mg/Kg*	SM4500NH3			N_WEX
E. Coli		ND	2.0	MPN/g		03/23/12 15:2	-	
Total Coliform		ND	2.0	MPN/g	SM 9221B	03/23/12 15:2	25 tng	
B2C2410-02	Sampled: 03/20/12 13.	:00						
B-2 @ 10'								
Ammonia-Nitroger	1	ND	1.0	mg/Kg*	SM4500NH3	H 03/29/12 12:5	53 sll	N_WEX
E. Coli		ND	2.0	MPN/g	SM 9221E	03/23/12 15:2	25 tng	
Total Coliform		300	2.0	MPN/g	SM 9221B	03/23/12 15:2	25 tng	
B2C2410-03	Sampled: 03/20/12 13.	:00						
B-2 @ 15'								
Ammonia-Nitroger	1	2.8	1.0	mg/Kg*	SM4500NH3	H 03/29/12 12:5	55 sll	N_WEX
E. Coli		ND	2.0	MPN/g	SM 9221E	03/23/12 15:3	30 tng	
Total Coliform		ND	2.0	MPN/g	SM 9221B	03/23/12 15:3	30 tng	

^{*} NELAP does not offer accreditation for this analyte/method/matrix combination



Client Name:Ninyo & Moore Contact:Michael Mowen Address:475 Goddard, #200 Irvine, CA 92618-4622 Analytical Report: Page 3 of 3

Project Name: Ninyo & Moore- Soil Contamination

Project Number: Lower Busch Tank - Malibu

Work Order Number: B2C2410

Received on Ice (Y/N): Yes Temp: $7^{\circ}C$

Notes and Definitions

Report Date:30-Mar-2012

N_WEX Analyte determined on a 1:10 water extract from the sample.

ND: Analyte NOT DETECTED at or above the Method Detection Limit (if MDL is reported), otherwise at or

above the Reportable Detection Limit (RDL)

NR: Not Reported

RDL: Reportable Detection Limit
MDL: Method Detection Limit

*/": NELAP does not offer accreditation for this analyte/method/matrix combination

Approval

Enclosed are the analytical results for the submitted sample(s). Babcock Laboratories certify the data presented as part of this report meet the minimum quality standards in the referenced analytical methods. Any exceptions have been noted. Babcock Laboratories and its officers and employees assume no responsibility and make no warranty, express or implied, for uses or interpretations made by any recipients, intended or unintended, of this report.

cc: e-Tab_Summary.rpt



E.S.BABCUCK&Sons,Inc. Environmental Laboratories est. 1906

Client Name:Ninyo & Moore Contact:Michael Mowen Address:475 Goddard, #200 Irvine, CA 92618-4622

Report Date:30-Mar-2012

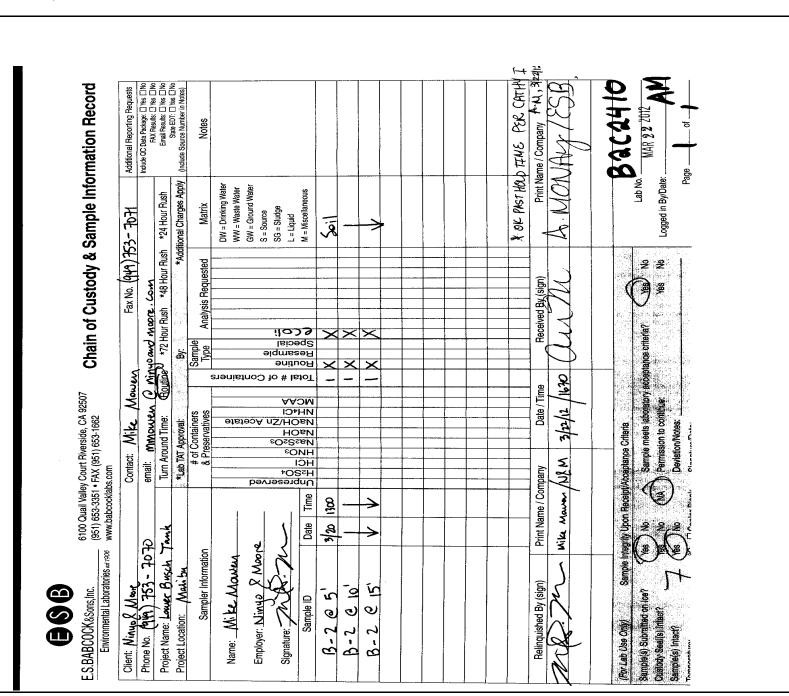
Analytical Report: Page 1 of 1

Project Name: Ninyo & Moore- Soil Contamination

Project Number: Lower Busch Tank - Malibu

Work Order Number: B2C2410

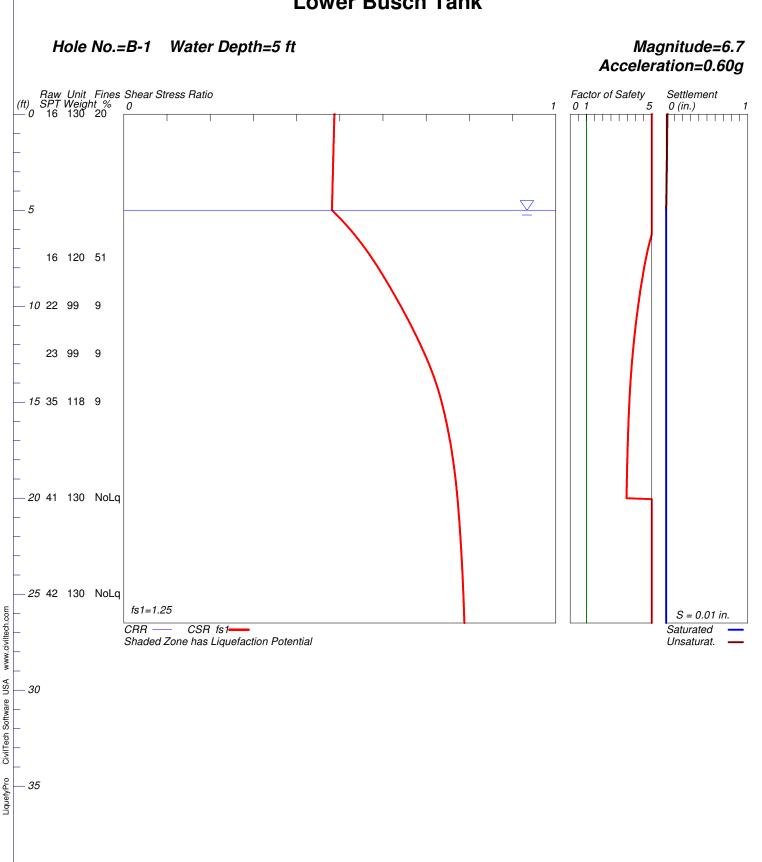
Received on Ice (Y/N): Yes Temp: $7^{\circ}C$



Appendix D Liquefaction Analysis

LIQUEFACTION ANALYSIS

Lower Busch Tank



B1 Liquefaction.cal

LIQUEFACTION ANALYSIS CALCULATION DETAILS
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Font: Courier New, Regular, Size 8 is recommended for this report. Licensed to , 4/24/2012 3:55:23 PM

Input File Name: I:\File Share\ST.temp\208543001 Lower Busch Tank\Liquefaction Analysis\B1 Liquefaction.liq
Title: Lower Busch Tank
Subtitle: 208543001

Input Data:
Surface Elev.=
Hole No.=B-1
Depth of Hole=26.50 ft
Water Table during Earthquake= 5.00 ft
Water Table during In-Situ Testing= 18.00 ft
Max. Acceleration=0.6 g

Earthquake Magnitude=6.70

1. SPT or BPT Calculation.

1. SPI Or BYI CAICULATION.

2. Settlement Analysis Method: Ishihara / Yoshimine

3. Fines Correction for Liquefaction: Idriss/Seed

4. Fine Correction for Settlement: During Liquefaction*

5. Settlement Calculation in: All zones*

Ce = 1.3 Cb= 1 Cs= 1

5. Settlement Calculation in: All zones
6. Hammer Energy Ratio,
7. Borehole Diameter,
8. Sampling Method,
9. User request factor of safety (apply to CSR),
Plot one CSR curve (fsl=User)
10. Use Curve Smoothing: Yes*
* Recommended Options

In-Situ Depth ft	Test Da SPT	ita: Gamma pcf	Fines %	
0.00	16.00	130.00	20.00	
7.50	16.00	120.00	51.00	
10.00	22.00	99.00	9.00	
12.50	23.00	99.00	9.00	
15.00	35.00	118.00	9.00	
20.00	41.00	130.00	NoLiq	
25.00	42.00	130.00	NoLig	

Output Results:

Calculation segment, dz=0.050 ft User defined Print Interval, dp=1.00 ft

CSR Calculation: Depth gamma sigma ft pcf atm Depth ft gamma' sigma' rd pcf atm x fs1 =CSRfs 130.00 128.67 127.33 126.00 124.67 123.33 122.00 0.00 1.00 2.00 3.00 0.000 0.065 0.129 0.192 0.255 0.317 0.378 0.498 0.554 0.656 0.705 0.865 0.865 0.986 1.047 1.111 1.175 1.305 1.305 1.435 1.565 130.00 128.67 127.33 126.00 60.93 59.60 58.27 53.40 45.00 36.60 36.60 36.60 40.40 62.80 67.60 67.60 67.60 67.60 67.60 67.60 67.60 0.000 0.065 0.129 0.192 0.255 0.317 0.376 0.405 0.450 0.450 0.505 0.553 0.582 0.611 0.674 0.707 0.707 0.707 0.707 0.707 0.708 0.842 0.876 1.00 1.00 1.00 0.99 0.99 0.99 0.39 0.39 0.39 0.39 0.49 0.49 0.49 0.48 4.00 5.00 6.00 7.00 8.00 9.00 0.48 0.39 0.39 0.42 0.45 0.47 0.51 0.53 0.55 0.55 0.58 0.60 0.52 120.67 115.80 107.40 99.00 99.00 99.00 110.40 118.00 120.40 122.80 125.20 130.00 130.00 130.00 130.00 0.98 0.98 0.59 9.00 10.00 11.00 12.00 13.00 14.00 15.00 17.00 0.98 0.97 0.97 0.97 0.96 0.96 0.96 0.95 0.95 0.95 0.95 0.64 0.66 0.69 0.71 0.72 0.74 0.75 17.00 18.00 19.00 20.00 21.00 0.76 0.77 0.77 0.61 0.61 0.62 0.62 0.78 0.78 0.78 0.78 21.00 22.00 23.00 24.00 25.00 26.00 0.62 0.63 0.63 0.79 130.00

CSR is based on water table at 5.00 during earthquake

CRR Cal Depth ft	culation SPT	from s Cebs	SPT or BPT Cr	data: sigma' atm	Cn	(N1)60	Fines %	d(N1)60	(N1)60f	CRR7.5
0.00 1.00 2.00 3.00 4.00 5.00 6.00 7.00 8.00 9.00 10.00 11.00 12.00 13.00 14.00 15.00	16.00 16.00 16.00 16.00 16.00 16.00 17.20 19.60 22.00 22.40 22.80 25.40 30.20 35.00	1.30 1.30 1.30 1.30 1.30 1.30 1.30 1.30	0.75 0.75 0.75 0.75 0.75 0.75 0.75 0.75	0.000 0.065 0.129 0.192 0.255 0.317 0.378 0.439 0.498 0.554 0.606 0.705 0.705 0.705 0.808	1.70 1.70 1.70 1.70 1.70 1.70 1.63 1.51 1.42 1.34 1.24 1.19 1.15 1.11	26.52 26.52 26.52 26.52 26.52 26.52 25.37 23.75 29.09 31.23 30.57 30.01 32.30 46.47	20.00 24.13 28.27 32.40 36.53 40.67 44.80 48.93 42.60 25.80 9.00 9.00 9.00 9.00 9.00	5.72 7.07 8.30 9.48 10.30 10.07 9.71 9.75 7.89 1.09 1.07 1.11 1.19	32.24 33.59 34.82 36.00 36.82 36.82 35.44 33.26 33.50 36.98 32.32 31.65 31.07 33.41 38.31 47.82	2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00
							Page	Ι Ι		

					В1	Liquefa	ıction.ca	.1	
36.20	1.30	0.95	0.925	1.04	46.49	9.00	1.35	47.84	2.00
37.40	1.30	0.95	0.986	1.01	46.53	9.00	1.35	47.88	2.00
38.60	1.30	0.95	1.047	0.98	46.58	9.00	1.35	47.93	2.00
39.80	1.30	0.95	1.079	0.96	47.31	9.00	1.36	48.67	2.00
41.00	1.30	0.95	1.113	0.95	48.00	9.00	1.37	49.38	2.00
41.20	1.30	0.95	1.146	0.93	47.52	NoLiq	14.50	62.03	2.00
41.40	1.30	0.95	1.180	0.92	47.06	NoLiq	14.41	61.48	2.00
41.60	1.30	0.95	1.214	0.91	46.63	NoLig	14.33	60.95	2.00
41.80	1.30	0.95	1.248	0.90	46.21	NoLiq	14.24	60.46	2.00
42.00	1.30	0.95	1.282	0.88	45.82	NoLiq	14.16	59.98	2.00
42.00	1.30	0.95	1.315	0.87	45.23	NoLiq	14.05	59.27	2.00
	37.40 38.60 39.80 41.00 41.20 41.40 41.60 41.80 42.00	37.40 1.30 38.60 1.30 39.80 1.30 41.00 1.30 41.20 1.30 41.40 1.30 41.60 1.30 41.80 1.30 42.00 1.30	37. 40 1.30 0.95 38.60 1.30 0.95 39.80 1.30 0.95 41.00 1.30 0.95 41.20 1.30 0.95 41.40 1.30 0.95 41.60 1.30 0.95 41.80 1.30 0.95 42.00 1.30 0.95	37.40 1.30 0.95 0.986 38.60 1.30 0.95 1.047 39.80 1.30 0.95 1.079 41.00 1.30 0.95 1.13 41.20 1.30 0.95 1.146 41.40 1.30 0.95 1.214 41.40 1.30 0.95 1.214 41.80 1.30 0.95 1.248 42.00 1.30 0.95 1.248	37.40 1.30 0.95 0.986 1.01 38.60 1.30 0.95 1.047 0.98 39.80 1.30 0.95 1.079 0.96 41.00 1.30 0.95 1.113 0.95 41.20 1.30 0.95 1.146 0.93 41.40 1.30 0.95 1.146 0.93 41.40 1.30 0.95 1.214 0.91 41.80 1.30 0.95 1.214 0.91 41.80 1.30 0.95 1.248 0.90 42.00 1.30 0.95 1.282 0.88	36.20 1.30 0.95 0.925 1.04 46.49 37.40 1.30 0.95 0.986 1.01 46.53 38.60 1.30 0.95 1.047 0.98 46.58 39.80 1.30 0.95 1.079 0.96 47.31 41.00 1.30 0.95 1.113 0.95 48.00 41.20 1.30 0.95 1.146 0.93 47.52 41.40 1.30 0.95 1.146 0.93 47.52 41.40 1.30 0.95 1.180 0.92 47.06 41.60 1.30 0.95 1.214 0.91 46.63 41.80 1.30 0.95 1.248 0.90 46.21 42.00 1.30 0.95 1.282 0.88 45.82	36.20 1.30 0.95 0.925 1.04 46.49 9.00 37.40 1.30 0.95 0.986 1.01 46.53 9.00 38.60 1.30 0.95 1.047 0.98 46.58 9.00 39.80 1.30 0.95 1.079 0.96 47.31 9.00 41.00 1.30 0.95 1.113 0.95 48.00 9.00 41.20 1.30 0.95 1.146 0.93 47.52 NoLiq 41.40 1.30 0.95 1.180 0.92 47.06 NoLiq 41.60 1.30 0.95 1.214 0.91 46.63 NoLiq 41.80 1.30 0.95 1.248 0.90 46.21 NoLiq 42.00 1.30 0.95 1.248 0.90 46.21 NoLiq 42.00 1.30 0.95 1.282 0.88 45.82 NoLiq 42.00 1.30 0.95 1.282 0.88 45.82 NoLiq	36.20 1.30 0.95 0.925 1.04 46.49 9.00 1.35 37.40 1.30 0.95 0.986 1.01 46.53 9.00 1.35 38.60 1.30 0.95 1.047 0.98 46.58 9.00 1.35 39.80 1.30 0.95 1.079 0.96 47.31 9.00 1.36 41.00 1.30 0.95 1.146 0.93 47.52 NoLiq 14.50 41.40 1.30 0.95 1.146 0.93 47.52 NoLiq 14.50 41.40 1.30 0.95 1.180 0.92 47.06 NoLiq 14.41 41.60 1.30 0.95 1.214 0.91 46.63 NoLiq 14.33 41.80 1.30 0.95 1.248 0.90 46.21 NoLiq 14.24 42.00 1.30 0.95 1.282 0.88 45.82 NoLiq 14.24	$\begin{array}{cccccccccccccccccccccccccccccccccccc$

CRR is based on water table at 18.00 during In-Situ Testing

Factor of Safety, - Earthquake Magnitude= 6.70:
Depth sigC' CRR7.5 x Ksig =CRRv x MSF =CRRm CSRfs F.S.=CRRm/CSRfs ft atm

* F.S.<1: Liquefaction Potential Zone. (If above water table: F.S.=5)
^ No-liquefiable Soils or above Water Table.
(F.S. is limited to 5, CRR is limited to 2, CSR is limited to 2)

CPT convert to SPT for Settlement Analysis:
Fines Correction for Settlement Analysis:
Denth IC ac/N60 qc1 (N1)60 Fines d(N1)60 (N1)60s

Depth ft	IC	qc/N60	qc1 atm	(N1)60	Fines %	d(N1)60	(N1)60s
0.00	_		_	32.24	20.00	0.00	32.24
1.00	-	-	-	33.59	24.13	0.00	33.59
2.00	-	-	-	34.82	28.27	0.00	34.82
3.00	-	-	-	36.00	32.40	0.00	36.00
4.00	-	-	-	36.82	36.53	0.00	36.82
5.00	-	-	-	36.82	40.67	0.00	36.82
6.00	-	-	-	35.44	44.80	0.00	35.44
7.00	-	-	-	33.26	48.93	0.00	33.26
8.00	-	-	-	33.50	42.60	0.00	33.50
9.00	-	-	-	36.98	25.80	0.00	36.98
10.00	-	-	-	32.32	9.00	0.00	32.32
11.00	-	-	-	31.65	9.00	0.00	31.65
12.00	-	-	-	31.07	9.00	0.00	31.07
13.00	-	-	-	33.41	9.00	0.00	33.41
14.00	-	-	-	38.31	9.00	0.00	38.31
15.00	-	-	-	47.82	9.00	0.00	47.82
16.00	-	-	-	47.84	9.00	0.00	47.84
17.00	-	-	-	47.88	9.00	0.00	47.88
18.00	-	-	-	47.93	9.00	0.00	47.93
19.00	-	-	-	48.67	9.00	0.00	48.67
20.00	-	-	-	49.38	9.00	0.00	49.38
21.00	-	-	-	62.03	NoLiq	0.00	62.03
22.00	-	-	-	61.48	NoLiq	0.00	61.48
23.00	-	-	-	60.95	NoLiq	0.00	60.95
24.00	-	-	-	60.46	NoLiq	0.00	60.46
25.00	-	-	-	59.98	NoLiq	0.00	59.98
26.00	-	-	-	59.27	NoLia	0.00	59.27

 $\overline{(\text{N1})60\text{s}}$ has been fines corrected in liquefaction analysis, therefore d(N1)60=0. Fines=NoLiq means the soils are not liquefiable.

Settlement of Saturated Sands:

	ent Ana		hod: Ish	nihara /	Yoshimir						
Depth	CSRsf	/ MSF*	=CSRm	F.S.	Fines	(N1)60s		ec	dsz	dsp	ş
ft					%		%	%	in.	in.	in.
26.45	0.79	1.00	0.79	5.00	NoLiq	58.96	100.00	0.000	0.0E0	0.000	0.000
26.00	0.79	1.00	0.79	5.00	NoLiq	59.27	100.00	0.000	0.0E0	0.000	0.000
25.00	0.79	1.00	0.79	5.00	NoLiq	59.98	100.00	0.000	0.0E0	0.000	0.000
24.00	0.78	1.00	0.78	5.00	NoLiq	60.46	100.00	0.000	0.0E0	0.000	0.000
23.00	0.78	1.00	0.78	5.00	NoLiq	60.95	100.00	0.000	0.0E0	0.000	0.000
22.00	0.78	1.00	0.78	5.00	NoLia	61.48	100.00	0.000	0.0E0	0.000	0.000
21.00	0.78	1.00	0.78	5.00	NoLia	62.03	100.00	0.000	0.0E0	0.000	0.000
20.00	0.77	1.00	0.77	3.45	9.00	49.38	100.00	0.000	0.0E0	0.000	0.000
19.00	0.77	1.00	0.77	3.48	9.00	48.67	100.00	0.000	0.0E0	0.000	0.000
18.00	0.76	1.00	0.76	3.50	9.00	47.93	100.00	0.000	0.0E0	0.000	0.000
17.00	0.76	1.00	0.76	3.53	9.00	47.88	100.00	0.000	0.0E0	0.000	0.000
16.00	0.75	1.00	0.75	3.58	9.00	47.84	100.00	0.000	0.0E0	0.000	0.000
15.00	0.74	1.00	0.74	3.63	9.00	47.82	100.00	0.000	0.0E0	0.000	0.000
13.00	0.74	1.00	0.74	3.03	5.00	77.02			U.UEU	0.000	0.000
							Page	2			

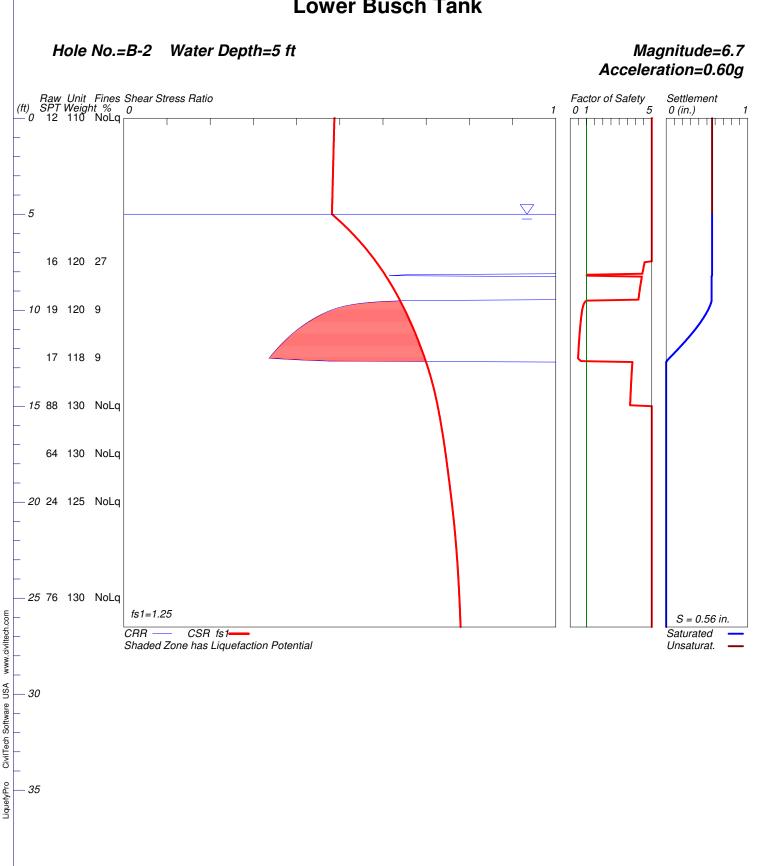
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B1 Liquefaction.cal
1 100.00 0.000
1 98.33 0.000
7 92.53 0.000
5 93.91 0.000
2 95.54 0.000
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                                 1.00
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                                                                                              35.44
36.82
  6.00
                 0.52
                                 1.00
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   5.00
                  0.48
                                 1.00
                                                                               40.67
                                                                                                                             0.000
                                                                                                                                                            0.000
   No Settlement of
                                   Saturated Sands
  Settlement of Saturated Sands=0.000 in. qc1 and (N1)60 is after fines correction in liquefaction analysis dsz is per each segment, dz=0.05 ft dsp is per each print interval, dp=1.00 ft S is cumulated settlement at this depth
  Settlement of Unsaturated Sands:
Depth sigma' sigC' (N1)60s
ft atm atm
                                                                                                                                                                           dsz
in.
                                                 (N1)60s CSRsf
                                                                               Gmax
                                                                                            g*Ge/Gm g_eff
                                                                                                                             ec7.5
                                                                                                                                                            ec
%
                                                                                                                                                                                                          S
in.
  4.95
                  0.31
                                 0.20
                                                 36.82
                                                                0.48
                                                                               671.02
                                                                                               2.3F-4
                                                                                                             0.0496
                                                                                                                             0.0194
                                                                                                                                                            0.0162
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                                                36.82
36.00
34.82
33.59
32.24
                                                                                              2.0E-4
1.8E-4
1.5E-4
                                                                                                                                                           0.0182
0.0130
0.0144
0.0106
0.0087
  4.00
3.00
2.00
                 0.25
0.19
0.13
0.06
                                 0.17
0.12
0.08
0.04
                                                               0.48
0.48
0.49
0.49
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521.10
421.91
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0.0417
0.0287
0.0220
                                                                                                                             0.0155
0.0172
0.0126
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0.84
0.84
0.84
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1.73E-4 0.004
1.27E-4 0.003
1.04E-4 0.002
                                                                                                                                                                                                         0.003
0.007
0.010
   1.00
                                                                                              1.1F-4
                                                                               295.56
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  0.00
                 0.00
                                 0.00
                                                                0.49
                                                                               3.62
                                                                                              1.3E-6
                                                                                                             0.0010
                                                                                                                             0.0005
                                                                                                                                            0.84
                                                                                                                                                            0.0004
                                                                                                                                                                           5.18E-6 0.001
                                                                                                                                                                                                         0.013
   Settlement of Unsaturated Sands=0.013 in.
  dsz is per each segment, dz=0.05 ft dsp is per each print interval, dp=1.00 ft s is cumulated settlement at this depth
Total Settlement of Saturated and Unsaturated Sands=0.013 in. Differential Settlement=0.007 to 0.009 in.
  References:
```

1. NCEER Workshop on Evaluation of Liquefaction Resistance of Soils. Youd, T.L., and Idriss, I.M., eds., Technical Report NCEER 97-0022. SP117. Southern California Earthquake Center. Recommended Procedures for Implementation of DMG Special Publication 117, Guidelines for

 ¹⁰ Analyzing and Mitigating Liquefaction in California. University of Southern California. March 1999.
 2. RECENT ADVANCES IN SOIL LIQUEFACTION ENGINEERING AND SEISMIC SITE RESPONSE EVALUATION, Paper No. SPL-2, PROCEEDINGS: Fourth International Conference on Recent Advances in Geotechnical Earthquake Engineering and Soil Dynamics, San Diego, CA, March 2001.
 3. RECENT ADVANCES IN SOIL LIQUEFACTION ENGINEERING: A UNIFIED AND CONSISTENT FRAMEWORK, Earthquake Engineering Research Center, Report No. EERC 2003-06 by R.B Seed and etc. April 2003.

LIQUEFACTION ANALYSIS

Lower Busch Tank



B2 Liquefaction.cal

LIQUEFACTION ANALYSIS CALCULATION DETAILS
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Font: Courier New, Regular, Size 8 is recommended for this report. Licensed to , $\ 4/24/2012 \ 3:56:10$ PM

Input File Name: I:\File Share\ST.temp\208543001 Lower Busch Tank\Liquefaction Analysis\B2 Liquefaction.liq Title: Lower Busch Tank Subtitle: 208543001

Input Data:
Surface Elev.=
Hole No.=B-2
Depth of Hole=26.50 ft
Water Table during Earthquake= 5.00 ft
Water Table during In-Situ Testing= 12.50 ft
Max. Acceleration=0.6 g
Earthquake Magnitude=6.70

1. SPT or BPT Calculation.
2. Settlement Analysis Method: Ishihara / Yoshimine
3. Fines Correction for Liquefaction: Idriss/Seed
4. Fine Correction for Settlement: During Liquefaction*
5. Settlement Calculation in: All zones*
6. Hammer Energy Ratio, Ce = 1.3
7. Borehole Diameter, Ce = 1.8
8. Sampling Method, Cs = 1
9. User request factor of safety (apply to CSR), User= 1.25
Plot one CSR curve (fs1=User)
10. Use Curve Smoothing: Yes*
* Recommended Options

	Test Da SPT	ta: Gamma pcf	Fines %
0.00	12.00	110.00	NoLiq
7.50	16.00	120.00	27.00
10.00	19.00	120.00	9.00
12.50	17.00	118.00	9.00
15.00	88.00	130.00	NoLiq
17.50	64.00	130.00	NoLiq
20.00	24.00	125.00	NoLiq
25.00	76.00	130.00	NoLiq

Output Results: Calculation segment, dz=0.050 ft User defined Print Interval, dp=1.00 ft

CSR Calculation:

Depth ft	gamma pcf	sigma atm	gamma' pcf	sigma' atm	rd	CSR	x fs1	=CSRfs
0.00 1.00 2.00 4.00 6.00 7.00 8.00 9.00 11.00 12.00 13.00 14.00 15.00 15.00 16.00 17.00 18.00 19.00 20.00 21.00 22.00 20	110.00 111.33 112.67 114.00 115.33 116.67 118.00 119.33 120.00 120.00 120.00 120.00 130.00 130.00 130.00 130.00 125.00 125.00 125.00 127.00 126.00 127.00 128.00 127.00 128.00 129.00	0.000 0.055 0.111 0.168 0.2283 0.342 0.401 0.581 0.641 0.700 0.700 0.700 0.700 1.015 1.015 1.027 1.144 1.207 1.333 1.336 1.3461 1.550	110.00 111.33 112.67 114.00 115.33 54.27 55.60 56.93 57.60 57.60 56.80 56.80 62.80 67.60 67.60 67.60 67.60 64.60 64.60 63.60 64.60 65.60 66.60 66.60 67.60	0.000 0.055 0.111 0.168 0.2283 0.311 0.3368 0.395 0.425 0.454 0.510 0.573 0.607 0.674 0.739 0.739 0.739 0.739 0.739 0.739 0.739 0.739 0.739 0.739 0.739	1.00 1.00 1.00 0.99 0.99 0.99 0.98 0.98 0.98 0.97 0.97 0.97 0.97 0.96 0.96 0.96 0.95 0.95 0.95	0.39 0.39 0.39 0.39 0.42 0.45 0.48 0.52 0.54 0.55 0.56 0.57 0.58 0.59 0.60 0.61 0.61 0.62 0.62	1.25 1.25 1.25 1.25 1.25 1.25 1.25 1.25	0.49 0.49 0.48 0.48 0.53 0.57 0.60 0.65 0.67 0.70 0.72 0.73 0.74 0.75 0.76 0.76 0.77 0.77 0.77
26.00	130.00	1.550	67.60	0.935	0.54	0.02	1.23	0.70

CSR is based on water table at 5.00 during earthquake

CRR Cal Depth ft	culation SPT	from Cebs	SPT or BPT Cr	data: sigma' atm	Cn	(N1)60	Fines %	d(N1)60	(N1)60f	CRR7.5
0.00 1.00 2.00 3.00 4.00 5.00 6.00 7.00 8.00 9.00 10.00 11.00 12.00 13.00 14.00	12.00 12.53 13.07 13.60 14.13 14.67 15.20 15.73 16.60 17.80 19.00 18.20 17.40 31.20 59.60	1.30 1.30 1.30 1.30 1.30 1.30 1.30 1.30	0.75 0.75 0.75 0.75 0.75 0.75 0.75 0.75	0.000 0.055 0.111 0.168 0.225 0.283 0.342 0.401 0.521 0.521 0.581 0.700 0.744	1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.31 1.47 1.39 1.31 1.25 1.19 1.16	19.89 20.77 21.66 22.54 23.43 24.31 25.19 24.22 23.83 27.25 27.54 25.12 22.97 39.97 74.85	NoLiq NoLiq NoLiq NoLiq NoLiq NoLiq 23.40 16.20 9.00 9.00 9.00 9.00 9.00	8.98 9.15 9.33 9.51 9.69 9.86 10.04 9.84 6.57 4.32 1.02 0.98 0.95 1.24 1.83	28.87 29.93 30.99 32.05 33.11 34.17 35.23 34.06 30.40 31.57 28.57 26.10 24.20 76.68	0.37 0.44 2.00
							Page	: т		

						В2	Liquefa	ction.ca	1	
15.00	88.00	1.30	0.95	0.807	1.11	121.00	NoLia	29.20	150.20	2.00
16.00	78.40	1.30	0.95	0.841	1.09	105.61	NoLig	26.12	131.73	2.00
17.00	68.80	1.30	0.95	0.874	1.07	90.87	NoLig	23.17	114.04	2.00
18.00	56.00	1.30	0.95	0.908	1.05	72.58	NoLig	19.52	92.09	2.00
19.00	40.00	1.30	0.95	0.941	1.03	50.93	NoLig	15.19	66.11	2.00
20.00	24.00	1.30	0.95	0.973	1.01	30.05	NoLig	11.01	41.06	2.00
21.00	34.40	1.30	0.95	1.004	1.00	42.39	NoLig	13.48	55.87	2.00
22.00	44.80	1.30	0.95	1.036	0.98	54.35	NoLig	15.87	70.22	2.00
23.00	55.20	1.30	0.95	1.069	0.97	65.94	NoLig	18.19	84.13	2.00
24.00	65.60	1.30	0.95	1.102	0.95	77.18	NoLig	20.44	97.62	2.00
25.00	76.00	1.30	0.95	1.135	0.94	88.09	NoLig	22.62	110.70	2.00
26.00	76.00	1.30	0.95	1.169	0.92	86.80	NoLiq	22.36	109.16	2.00

CRR is based on water table at 12.50 during In-Situ Testing

Factor of Safety, - Earthquake Magnitude= 6.70: Depth sigC' CRR7.5 x Ksig = CRRV x MSF = CRRM Depth ft sigC' CSRfs F.S.=CRRm/CSRfs 5.00 ^ 5.00 ^ 5.00 ^ 5.00 ^ 5.00 ^ 5.00 ^ 5.00 ^ 0.00 0.00 2.00 2.00 2.00 2.00 0.37 1.00 1.333 11. 0.49 0.44 2.00 2.00 0.44 2.00 2.00 0.49 0.49 0.48 1.00 0.04 0.07 1.00 1.00 3.00 0.11 1.00 0.15 0.18 0.22 0.26 0.30 0.34 2.00 2.00 2.00 2.00 2.00 2.00 2.00 0.36 2.00 2.00 2.00 2.00 2.67 2.67 0.48 4.00 5.00 6.00 7.00 1.00 1.00 1.00 1.00 0.48 0.48 0.53 0.57 2.00 2.00 1.00 1.00 1.00 1.00 0.60 0.63 0.65 4.45 4.25 0.74 8.00 9.00 2.00 10.00 11.00 12.00 13.00 0.36 0.38 0.42 0.46 0.48 0.50 0.52 0.55 0.57 0.30 0.27 2.00 0.30 0.27 2.00 0.40 0.67 0.60 1.00 1.00 1.00 1.00 1.00 1.00 0.36 2.67 2.67 0.52 3.79 3.72 0.69 0.70 0.72 0.73 0.73 0.74 0.75 0.76 0.76 0.77 0.77 2.00 14.00 2.00 5.00 5.00 5.00 5.00 5.00 5.00 15.00 16.00 17.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 5.00 \(\) 5.00 \(\) 5.00 \(\) 5.00 \(\) 5.00 \(\) 5.00 \(\) 5.00 \(\) 5.00 \(\) 5.00 \(\) 5.00 \(\) 5.00 \(\) 5.00 \(\) 5.00 \(\) 5.00 \(\) 18.00 0.59 0.61 0.63 0.65 0.67 0.69 0.72 0.74 19.00 20.00 21.00 22.00 1.00 1.00 1.00 1.00 1.00 1.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 23.00 24.00 25.00 2.00 0.78 26.00 2.00 1.00 2.00 1.33 0.78

* F.S.<1: Liquefaction Potential Zone. (If above water table: F.S.=5) ^ No-liquefiable Soils or above water Table. (F.S. is limited to 5, CRR is limited to 2, CSR is limited to 2)

CPT convert to SPT for Settlement Analysis:
Fines Correction for Settlement Analysis:
Depth IC qc/N60 qc1 (N1)60 Fines d(N1)60 (N1)60s atm 28.87 29.93 30.99 0.00 0.00 0.00 28.87 29.93 30.99 1.00 NoLia NoLiq NoLiq NoLiq 0.00 0.00 0.00 0.00 32.05 33.11 34.17 3.00 32.05 33.11 34.17 35.23 34.06 30.40 31.57 28.57 26.10 23.92 41.20 5.00 NoLiq 34.1/ 35.23 34.06 30.40 31.57 28.57 26.10 23.92 41.20 6.00 7.00 8.00 9.00 NoLiq NoLiq 23.40 16.20 0.00 0.00 0.00 16.20 9.00 9.00 9.00 9.00 NoLiq NoLiq NoLiq 10.00 11.00 12.00 13.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 14.00 15.00 76.68 100.00 100.00 76.68 100.00 100.00 16.00 17.00 18.00 19.00 100.00 100.00 92.09 66.11 92.09 66.11 41.06 55.87 70.22 84.13 97.62 NoLiq NoLiq NoLiq NoLiq 20.00 41.06 21.00 22.00 23.00 0.00 0.00 0.00 0.00 55.87 70.22 84.13 97.62 NoLiq NoLiq NoLiq 24.00 25.00 26.00 100.00 0.00 100.00

(N1)60s has been fines corrected in liquefaction analysis, therefore d(N1)60=0. Fines=NoLiq means the soils are not liquefiable.

Settlement of Saturated Sands:
Settlement Analysis Method: Ishihara / Yoshimine
Depth CSRsf / MSF* = CSRm F.S. Fines (N1)60s Dr % dsp in. dsz ec % S in. in. 26.45 26.00 25.00 24.00 23.00 22.00 100.00 100.00 100.00 97.62 84.13 70.22 55.87 41.06 66.11 92.09 5.00 5.00 5.00 5.00 5.00 5.00 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.0E0 0.78 0.78 0.78 0.77 0.77 0.76 0.76 0.75 0.75 0.74 NoLiq 0.78 0.78 0.78 0.77 0.77 0.76 0.76 0.75 0.75 0.74 0.0E0 0.0E0 0.0E0 0.0E0 NoLiq NoLiq NoLiq NoLiq 1.00 100.00 1.00 100.00 0.000 0.000 0.000 0.000 0.000 1.00 1.00 100.00 0.000 NoLiq NoLiq NoLiq NoLiq NoLiq NoLiq 1.00 100.00 0.000 0.0E0 5.00 5.00 5.00 5.00 5.00 5.00 21.00 20.00 19.00 1.00 1.00 1.00 1.00 100.00 100.00 100.00 100.00 0.000 0.000 0.000 0.000 0.0E0 0.0E0 0.0E0 0.0E0 0.000 0.000 0.000 0.000 18.00 17.00 16.00 1.00 1.00 100.00 100.00 0.000 0.0E0 0.0E0 Page

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B2 Liquefaction.cal
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76.68
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9.4E-3
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31.57
30.40
   11.00
                                1.00
                 0.65
0.63
0.60
                                                                           9.00
9.00
16.20
23.40
                                                                                                         86.91
93.71
90.97
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0.558
0.562
  10.00
                                1.00
1.00
                                                                                                                                      6.1E-3
0.0E0
  8.00
7.00
                                1.00
                                                                                                                                      0.0E0
                 0.57
0.53
0.48
                                                             5.00
5.00
5.00
                                                                                          34.06
35.23
34.17
                                                                                                         100.00
100.00
100.00
                                                                           NoLiq
NoLiq
                                1.00
                                                                                                                       0.000
                                                                                                                                      0.0E0
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                                                                                                                                                                   0.562
   6.00
5.00
                                1.00
1.00
                                                                                                                       0.000
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0.0E0
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                                                                            NoLia
  Settlement of Saturated Sands=0.562 in. qc1 and (N1)60 is after fines correction in liquefaction analysis dsz is per each segment, dz=0.05 ft dsp is per each print interval, dp=1.00 ft S is cumulated settlement at this depth
  Settlement of Unsaturated Sands:
Depth sigma' sigC' (N1)60s
ft atm atm
                                                                                                                                                                   dsz
in.
                                               (N1)60s CSRsf
                                                                           Gmax
                                                                                        g*Ge/Gm g_eff
                                                                                                                       ec7.5
                                                                                                                                                     ec
%
                                                                                                                                                                                                 S
in.
  4.95
                 0.28
                                0.18
                                                                            618.45
                                                                                           2.2E-4
                                                                                                         0.0457
                                                                                                                        0.0209
                                                                                                                                                     0.0175
                                                                                                                                                                   0.00E0
                                                                                                                                                                                  0.000
                                                                                                                                                                                                 0.000
                                              34.12
33.11
32.05
30.99
29.93
28.87
                                                                                         2.2E-4
2.0E-4
1.7E-4
1.4E-4
1.0E-4
  4.00
3.00
2.00
                 0.23
0.17
0.11
0.06
                               0.15
0.11
0.07
0.04
                                                            0.48
0.48
0.49
0.49
                                                                            548.89
468.83
377.41
263.01
                                                                                                        0.0746
0.0391
0.0272
0.0207
                                                                                                                       0.0361
0.0200
                                                                                                                                     0.84
0.84
0.84
0.84
                                                                                                                                                     0.0303
0.0168
0.0123
                                                                                                                                                                   0.00E0
0.00E0
                                                                                                                                                                                  0.000
0.000
0.000
0.000
                                                                                                                                                                                                0.000
0.000
0.000
                                                                                                                        0.0147
                                                                                                                                                                   0.00E0
0.00E0
   1.00
                                                                                                                        0.0118
                                                                                                                                                     0.0099
                                                                                                                                                                                                 0.000
  0.00
                 0.00
                                0.00
                                                             0.49
                                                                            3.49
                                                                                                        0.0010
                                                                                                                       0.0006
                                                                                                                                      0.84
                                                                                                                                                     0.0005
                                                                                                                                                                   0.00E0
                                                                                                                                                                                  0.000
                                                                                                                                                                                                 0.000
   Settlement of Unsaturated Sands
   Settlement of Unsaturated Sands=0.000 in.
  dsz is per each print interval, dp=1.00 ft
dsp is per each print interval, dp=1.00 ft
S is cumulated settlement at this depth
Total Settlement of Saturated and Unsaturated Sands=0.562 in. Differential Settlement=0.281 to 0.371 in.
  1. NCEER Workshop on Evaluation of Liquefaction Resistance of Soils. Youd, T.L., and Idriss, I.M., eds., Technical Report NCEER
```

SP117. Southern California Earthquake Center. Recommended Procedures for Implementation of DMG Special Publication 117. Guidelines for

naalyzing and Mitigating Liquefaction in California. University of Southern California. March 1999.

RECENT ADVANCES IN SOIL LIQUEFACTION ENGINEERING AND SEISMIC SITE RESPONSE EVALUATION, Paper No. SPL-2, PROCEEDINGS: Fourth International Conference on Recent Advances in Geotechnical Earthquake Engineering and Soil Dynamics, San Diego, CA, March 2001.

RECENT ADVANCES IN SOIL LIQUEFACTION ENGINEERING: A UNIFIED AND CONSISTENT FRAMEWORK, Earthquake Engineering Research Center, Report No. EERC 2003-06 by R.B Seed and etc. April 2003.

Page 3

APPENDIX D PALEONTOLOGICAL RECORDS SEARCH



Natural History Museum of Los Angeles County 900 Exposition Boulevard Los Angeles, CA 90007

tel 213.763.DINO www.nhm.org

Vertebrate Paleontology Section Telephone: (213) 763-3325

e-mail: smcleod@nhm.org

12 August 2019

Psomas 3 Hutton Centre Drive, Suite 200 Santa Ana, CA 92707-8794

Attn: Melissa Macias, Paleontologist

re: Paleontological Resources for the proposed Lower Busch Tank Addendum Project, Psomas Project # 3DPW152201, in the City of Malibu, Los Angeles County, project area

Dear Melissa:

I have conducted a thorough search of our Vertebrate Paleontology records for the proposed Lower Busch Tank Addendum Project, Psomas Project # 3DPW152201, in the City of Malibu, Los Angeles County, project area as outlined on the portion of the Point Dume USGS topographic quadrangle map that you sent to me via e-mail on 29 July 2019. We do not have any vertebrate fossil localities that lie directly within the proposed project area boundaries, but we do have localities nearby from sedimentary deposits similar to those that occur in the proposed project area, either at the surface or at depth.

Surface deposits throughout the proposed project area consist of Quaternary Alluvium, nominally geologically mapped as being marine. These Quaternary deposits typically do not contain significant vertebrate fossils in the uppermost layers, but older sedimentary deposits at relatively shallow depth may well contain significant fossil vertebrate remains. Our closest vertebrate fossil locality from these older Quaternary deposits is LACM 1754, just east of due south of the proposed project area in Malibu Riviera south of the Pacific Coast Highway (Highway 1) above Westward Beach Road. Locality LACM 1754 produced an extensive fossil fauna of late Pleistocene vertebrates (see appendix). Of particular note, two fossil specimens from locality LACM 1754 have been published in the scientific literature: J.H. Hutchison (1987. Moles of the *Scapanus latimanus* group (Talpidae, Insectivora) from the Pliocene and

Pleistocene of California. LACM Contributions in Science, 386:1-15) published on the mole, *Scapanus latimanus*, and G.T. Jefferson (1989. Late Cenozoic Tapirs (Mammalia: Perissodactyla) of Western North America. LACM Contributions in Science, 406:1-21) published on the tapir, *Tapirus californicus*.

Immediately to the east and west of the proposed project area there are exposures of the marine early to middle Miocene Trancas Formation. We have no vertebrate fossil localities designated as coming from the Trancas Formation, but some authors have considered it equivalent to some portion of the Topanga Formation. Many of our earlier recorded Topanga Formation localities in the vicinity of the proposed project area do not distinguish between the Lower, Middle, and Upper units of the Topanga Formation. Northeast of the proposed project area we have a series of fossil vertebrate localities clearly being from the marine portion of the Topanga Formation: LACM 5087, 5651, 6257, 6381, and 7367-7368. These localities all occur along Old Topanga Road on the south side of the Calabasas Highlands, except for LACM 7368 that occurs near the top of the ridge on the south side of the Calabasas Highlands. These localities produced fossil specimens of eagle ray, *Myliobatis*, bonito shark, *Isurus*, snaggletooth shark *Hemipristis*, basking shark, *Cetorhinus*, giant sea bass, *Stereolepis*, grouper, *Lompoquia*, herring, *Ganolytes cameo*, sea cows, Dugongidae, and a primitive baleen whale, *Nannocetus*.

Shallow excavations in the Quaternary terrace deposits exposed throughout the proposed project area are unlikely to uncover significant vertebrate fossils. Deeper excavations in those deposits that extend down into older sedimentary deposits, however, may well encounter significant vertebrate fossil remains. Any substantial excavations in the proposed project area, therefore, should be monitored closely to quickly and professionally recover any fossil remains discovered while not impeding development. Also, sediment samples should be collected and processed to determine the small fossil potential in the proposed project area. Any fossils recovered during mitigation should be deposited in an accredited and permanent scientific institution for the benefit of current and future generations.

This records search covers only the vertebrate paleontology records of the Natural History Museum of Los Angeles County. It is not intended to be a thorough paleontological survey of the proposed project area covering other institutional records, a literature survey, or any potential on-site survey.

Sincerely,

Samuel A. McLeod, Ph.D. Vertebrate Paleontology

enclosures: appendix, invoice

Summel A. M. Leod

Late Pleistocene fauna from locality LACM 1754

Aves			Mammalia		
Accipitriformes		- hawks & falcons	Artiodactyla		
Anseriformes		- nawks & falcons	Cervidae		- deer
Anatidae		- ducks & geese	Insectivora		- ucci
Anas	americana	- ducks & geese	Talpidae		- moles
			_	latimanus	- mores
Aythya	affinis		Scapanus	tatimanus	
Aythya	marila		Lagomorpha		- rabbits
Bucephala	albeola		Perissodactyla		•
Chendytes	lawi		Equidae		- horses
Melanitta	perspicillata		Equus		
Oxyura	jamaicensis		Tapiridae		- tapirs
Ardeiformes			Tapirus	californicus	
Ardeidae		- egrets & herons	Rodentia		
Ardea	herodias		Cricetidae		- deer mice
Charadriiformes			Geomyidae		 pocket gophers
Alcidae		- murres & murrelets			
Synthliboramphus	antiquus				
Úria	aalge				
Laridae		- gulls			
Larus	canus				
Larus	occidentalis				
Galliformes					
Meleagridae		- turkeys			
Parapavo	californicus				
Phasianidae		- quail			
Lophortyx	californica	quan			
Gaviiformes	canjornica				
Gaviidae		- loons			
Gavia	stellata	- 100ffs			
Gruiformes	stettata				
Rallidae		- rails			
Fulica	americana				
Passeriformes					
Corvidae		- crows			
Corvus	corax				
Pelecaniformes					
Phalacrocoracidae		- cormorants			
Phalacrocorax	penicillatus				
Sulidae		- boobies			
Podicipediformes					
Podicipedidae		- grebes			
Podiceps	caspicus				
Procellariidae		- fulmars & shearwaters			
Fulmarus	glacialis				
Puffinus	griseus				
Puffinus	puffinus				
Strigiformes		- owls			
2					

APPENDIX E RADIUS REPORT (HAZARDOUS MATERIALS)

Lower Busch Tank 5731 South Busch Drive Malibu, CA 90265

Inquiry Number: 5718396.2s

July 16, 2019

The EDR Radius Map™ Report



6 Armstrong Road, 4th floor Shelton, CT 06484 Toll Free: 800.352.0050 www.edrnet.com

TABLE OF CONTENTS

SECTION	PAGE
Executive Summary	_ ES1
Overview Map	_ 2
Detail Map.	_ 3
Map Findings Summary.	_ 4
Map Findings	_ 9
Orphan Summary	23
Government Records Searched/Data Currency Tracking	GR-1
GEOCHECK ADDENDUM	

GeoCheck - Not Requested

Thank you for your business.Please contact EDR at 1-800-352-0050 with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E 2247-16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E 1528-14) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

5731 SOUTH BUSCH DRIVE MALIBU, CA 90265

COORDINATES

Latitude (North): 34.0301170 - 34° 1' 48.42" Longitude (West): 118.8190830 - 118° 49' 8.69"

Universal Tranverse Mercator: Zone 11 UTM X (Meters): 332056.5 UTM Y (Meters): 3766793.0

Elevation: 315 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map: 5630763 POINT DUME, CA

Version Date: 2012

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from: 20140513 Source: USDA

MAPPED SITES SUMMARY

Target Property Address: 5731 SOUTH BUSCH DRIVE MALIBU, CA 90265

Click on Map ID to see full detail.

MAP				RELATIVE	DIST (ft. & mi.)
ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	ELEVATION	DIRECTION
1	KATHERINE MARINARO	5911 BUSCH DR	RCRA NonGen / NLR	Lower	1098, 0.208, SSW
2	MALIBU HIGH SCHOOL	30215 MORNING VIEW D	ENVIROSTOR, LUST, SCH, SWEEPS UST, DEED, HIST.	Lower	3298, 0.625, SW

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list	
NPL	
Proposed NPL	Proposed National Priority List Sites
NPL LIENS	Federal Superfund Liens
Federal Delisted NPL site lis	:t
Delisted NPL	National Priority List Deletions

Federal	CERCLIS list	

FEDERAL FACILITY	Federal Facility Site Information listing
SEMS	Superfund Enterprise Management System

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE	Superfund	Enterprise	Management	System	Archive

Federal RCRA CORRACTS facilities list

CORRACTS..... Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF..... RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

RCRA-LQG	RCRA - Large Quantity Generators
RCRA-SQG	RCRA - Small Quantity Generators
RCRA-CESQG	RCRA - Conditionally Exempt Small Quantity Generator

Federal institutional controls / engineering controls registries

LUCIS	Land Use Control Information System
US ENG CONTROLS	Engineering Controls Sites List

EXECUTIVE SUMMARY

US INST CONTROL..... Sites with Institutional Controls

Federal ERNS list

ERNS..... Emergency Response Notification System

State- and tribal - equivalent NPL

RESPONSE...... State Response Sites

State and tribal landfill and/or solid waste disposal site lists

SWF/LF..... Solid Waste Information System

State and tribal leaking storage tank lists

LUST...... Geotracker's Leaking Underground Fuel Tank Report INDIAN LUST..... Leaking Underground Storage Tanks on Indian Land

CPS-SLIC Statewide SLIC Cases

State and tribal registered storage tank lists

FEMA UST..... Underground Storage Tank Listing

UST...... Active UST Facilities

AST...... Aboveground Petroleum Storage Tank Facilities INDIAN UST...... Underground Storage Tanks on Indian Land

State and tribal voluntary cleanup sites

INDIAN VCP...... Voluntary Cleanup Priority Listing VCP...... Voluntary Cleanup Program Properties

State and tribal Brownfields sites

BROWNFIELDS..... Considered Brownfieds Sites Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS..... A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT...... Waste Management Unit Database

SWRCY...... Recycler Database

HAULERS...... Registered Waste Tire Haulers Listing

ODI..... Open Dump Inventory

IHS OPEN DUMPS..... Open Dumps on Indian Land

Local Lists of Hazardous waste / Contaminated Sites

AOCONCERN...... Key Areas of Concerns in Los Angeles County

US HIST CDL..... Delisted National Clandestine Laboratory Register

HIST Cal-Sites Database

SCH______School Property Evaluation Program

CDL..... Clandestine Drug Labs

US CDL...... National Clandestine Laboratory Register PFAS Contamination Site Location Listing

Local Lists of Registered Storage Tanks

SWEEPS UST _____ SWEEPS UST Listing

HIST UST..... Hazardous Substance Storage Container Database

CA FID UST..... Facility Inventory Database

CERS TANKS...... California Environmental Reporting System (CERS) Tanks

Local Land Records

LIENS..... Environmental Liens Listing LIENS 2..... CERCLA Lien Information DEED...... Deed Restriction Listing

Records of Emergency Release Reports

HMIRS..... Hazardous Materials Information Reporting System CHMIRS...... California Hazardous Material Incident Report System

LDS..... Land Disposal Sites Listing MCS..... Military Cleanup Sites Listing SPILLS 90...... SPILLS 90 data from FirstSearch

Other Ascertainable Records

FUDS..... Formerly Used Defense Sites DOD...... Department of Defense Sites

SCRD DRYCLEANERS...... State Coalition for Remediation of Drycleaners Listing

US FIN ASSUR..... Financial Assurance Information

EPA WATCH LIST..... EPA WATCH LIST

2020 COR ACTION...... 2020 Corrective Action Program List

TSCA..... Toxic Substances Control Act

TRIS...... Toxic Chemical Release Inventory System

SSTS..... Section 7 Tracking Systems ROD...... Records Of Decision RMP..... Risk Management Plans

RAATS...... RCRA Administrative Action Tracking System

PRP..... Potentially Responsible Parties PADS...... PCB Activity Database System

Act)/TSCA (Toxic Substances Control Act)

..... Material Licensing Tracking System COAL ASH DOE Steam-Electric Plant Operation Data

COAL ASH EPA..... Coal Combustion Residues Surface Impoundments List

PCB TRANSFORMER...... PCB Transformer Registration Database

RADINFO...... Radiation Information Database

HIST FTTS..... FIFRA/TSCA Tracking System Administrative Case Listing

DOT OPS..... Incident and Accident Data

CONSENT..... Superfund (CERCLA) Consent Decrees

INDIAN RESERV.....Indian Reservations

FUSRAP..... Formerly Utilized Sites Remedial Action Program

UMTRA..... Uranium Mill Tailings Sites

LEAD SMELTERS..... Lead Smelter Sites

US AIRS...... Aerometric Information Retrieval System Facility Subsystem

US MINES..... Mines Master Index File ABANDONED MINES..... Abandoned Mines

FINDS_____Facility Index System/Facility Registry System DOCKET HWC..... Hazardous Waste Compliance Docket Listing ECHO_____ Enforcement & Compliance History Information

UXO...... Unexploded Ordnance Sites

FUELS PROGRAM..... EPA Fuels Program Registered Listing CA BOND EXP. PLAN...... Bond Expenditure Plan

CUPA Listings...... CUPA Resources List DRYCLEANERS..... Cleaner Facilities EMI..... Emissions Inventory Data ENF..... Enforcement Action Listing

Financial Assurance Information Listing

HAZNET..... Facility and Manifest Data

ICE.....ICE

HIST CORTESE..... Hazardous Waste & Substance Site List LOS ANGELES CO. HMS.... HMS: Street Number List

HWP..... EnviroStor Permitted Facilities Listing

HWT...... Registered Hazardous Waste Transporter Database

MINES..... Mines Site Location Listing

MWMP..... Medical Waste Management Program Listing

NPDES Permits Listing

PEST LIC...... Pesticide Regulation Licenses Listing PROC..... Certified Processors Database

Notify 65_____ Proposition 65 Records

LA Co. Site Mitigation List

UIC Listing

UIC GEO...... UIC GEO (GEOTRACKER) WASTEWATER PITS...... Oil Wastewater Pits Listing WDS..... Waste Discharge System

WIP..... Well Investigation Program Case List MILITARY PRIV SITES..... MILITARY PRIV SITES (GEOTRACKER)

PROJECT.....PROJECT (GEOTRACKER)

WDR_____ Waste Discharge Requirements Listing CIWQS...... California Integrated Water Quality System

CERS..... CERS

NON-CASE INFO...... NON-CASE INFO (GEOTRACKER) OTHER OIL GAS..... OTHER OIL & GAS (GEOTRACKER) PROD WATER PONDS...... PROD WATER PONDS (GEOTRACKER) SAMPLING POINT SAMPLING POINT (GEOTRACKER) WELL STIM PROJ...... Well Stimulation Project (GEOTRACKER)

LOS ANGELES CO LF METHAMAEThane Producing Landfills

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP..... EDR Proprietary Manufactured Gas Plants

EDR Hist Auto______ EDR Exclusive Historical Auto Stations EDR Hist Cleaner.____ EDR Exclusive Historical Cleaners

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF	Recovered Government Archive Solid Waste Facilities List
RGA LUST	Recovered Government Archive Leaking Underground Storage Tank

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.

Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in **bold italics** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

State- and tribal - equivalent CERCLIS

ENVIROSTOR: The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifies sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

A review of the ENVIROSTOR list, as provided by EDR, and dated 04/29/2019 has revealed that there is 1 ENVIROSTOR site within approximately 1 mile of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
MALIBU HIGH SCHOOL Facility Id: 19820092	30215 MORNING VIEW D	SW 1/2 - 1 (0.625 mi.)	2	10

Status: Certified O&M - Land Use Restrictions Only

ADDITIONAL ENVIRONMENTAL RECORDS

Other Ascertainable Records

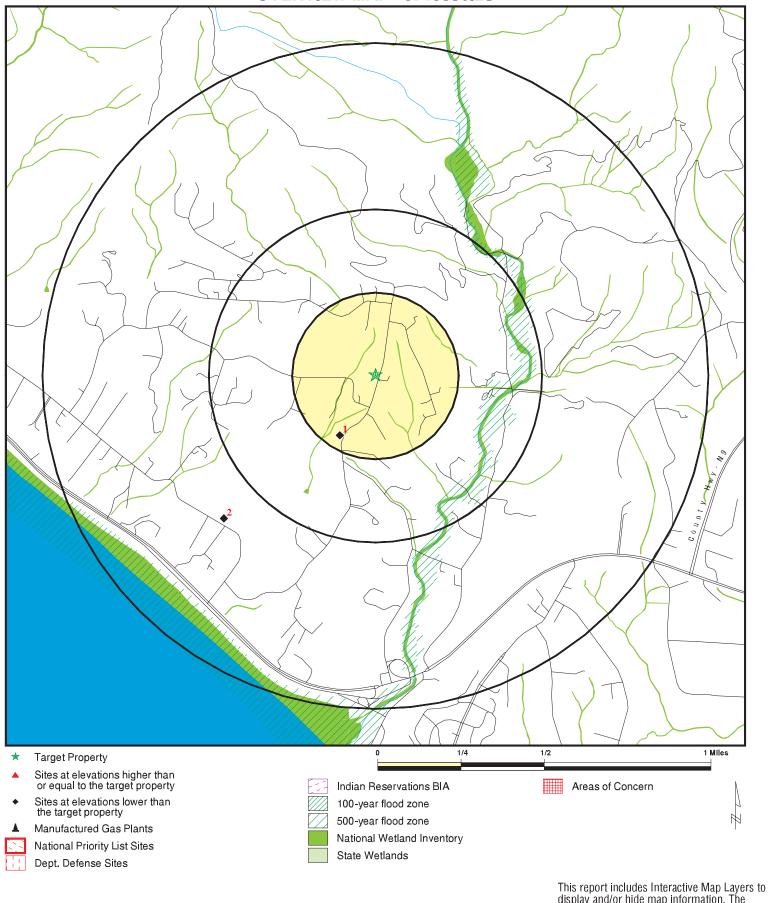
RCRA NonGen / NLR: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

A review of the RCRA NonGen / NLR list, as provided by EDR, and dated 03/25/2019 has revealed that there is 1 RCRA NonGen / NLR site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
KATHERINE MARINARO	5911 BUSCH DR	SSW 1/8 - 1/4 (0.208 mi.)	1	9
EPA ID:: CAC002999435				

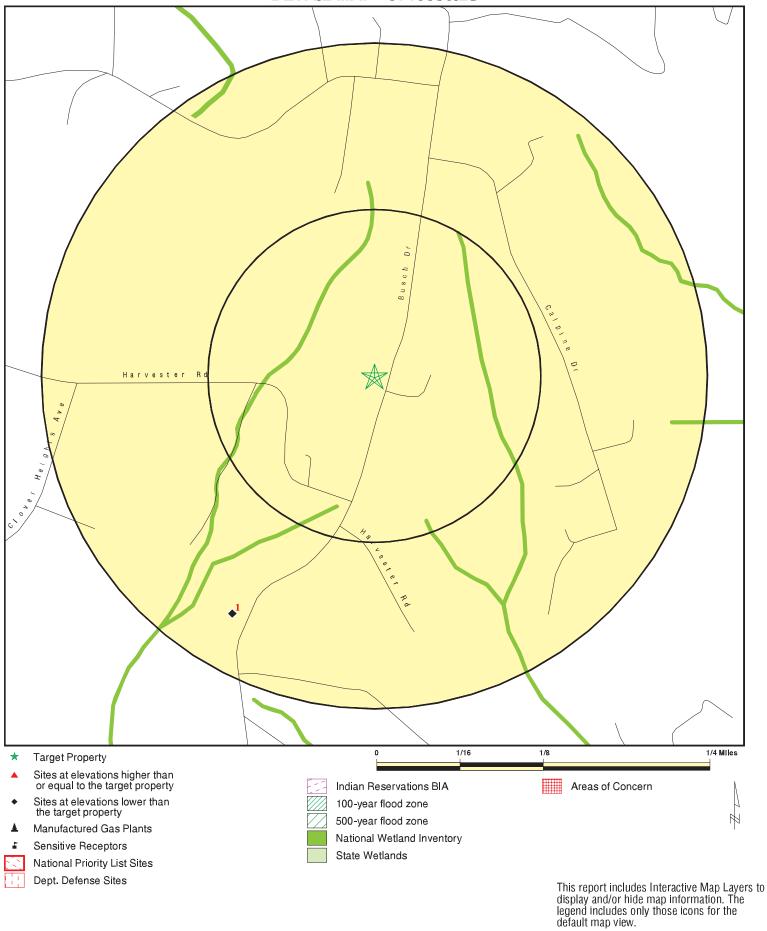
There were no unmapped sites in this report.

OVERVIEW MAP - 5718396.2S



This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

DETAIL MAP - 5718396.2S



Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMEN	TAL RECORDS							
Federal NPL site list								
NPL Proposed NPL NPL LIENS	1.000 1.000 1.000		0 0 0	0 0 0	0 0 0	0 0 0	NR NR NR	0 0 0
Federal Delisted NPL sit	e list							
Delisted NPL	1.000		0	0	0	0	NR	0
Federal CERCLIS list								
FEDERAL FACILITY SEMS	0.500 0.500		0 0	0 0	0 0	NR NR	NR NR	0 0
Federal CERCLIS NFRA	P site list							
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
Federal RCRA CORRAC	TS facilities li	st						
CORRACTS	1.000		0	0	0	0	NR	0
Federal RCRA non-COR	RACTS TSD fa	acilities list						
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Federal RCRA generator	rs list							
RCRA-LQG RCRA-SQG RCRA-CESQG	0.250 0.250 0.250		0 0 0	0 0 0	NR NR NR	NR NR NR	NR NR NR	0 0 0
Federal institutional con engineering controls reg								
LUCIS US ENG CONTROLS US INST CONTROL	0.500 0.500 0.500		0 0 0	0 0 0	0 0 0	NR NR NR	NR NR NR	0 0 0
Federal ERNS list								
ERNS	TP		NR	NR	NR	NR	NR	0
State- and tribal - equiva	alent NPL							
RESPONSE	1.000		0	0	0	0	NR	0
State- and tribal - equiva	alent CERCLIS	5						
ENVIROSTOR	1.000		0	0	0	1	NR	1
State and tribal landfill a solid waste disposal site								
SWF/LF	0.500		0	0	0	NR	NR	0
State and tribal leaking	storage tank l	ists						
LUST	0.500		0	0	0	NR	NR	0

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
INDIAN LUST CPS-SLIC	0.500 0.500		0	0 0	0 0	NR NR	NR NR	0 0
State and tribal registere	ed storage tar	nk lists						
FEMA UST UST AST INDIAN UST	0.250 0.250 0.250 0.250		0 0 0 0	0 0 0 0	NR NR NR NR	NR NR NR NR	NR NR NR NR	0 0 0 0
State and tribal voluntary	y cleanup site	es						
INDIAN VCP VCP	0.500 0.500		0 0	0 0	0 0	NR NR	NR NR	0 0
State and tribal Brownfie	elds sites							
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMEN	TAL RECORD	<u>s</u>						
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / S Waste Disposal Sites	Solid							
WMUDS/SWAT SWRCY HAULERS INDIAN ODI DEBRIS REGION 9 ODI IHS OPEN DUMPS	0.500 0.500 TP 0.500 0.500 0.500 0.500		0 0 NR 0 0 0	0 0 NR 0 0 0	0 0 NR 0 0 0	NR NR NR NR NR NR	NR NR NR NR NR NR	0 0 0 0 0 0
Local Lists of Hazardous Contaminated Sites	s waste /							
AOCONCERN US HIST CDL HIST Cal-Sites SCH CDL Toxic Pits CERS HAZ WASTE US CDL PFAS	1.000 TP 1.000 0.250 TP 1.000 0.250 TP 0.500		0 NR 0 0 NR 0 0 NR	0 NR 0 0 NR 0 0 NR	0 NR 0 NR NR 0 NR 0	0 NR 0 NR NR 0 NR NR	NR NR NR NR NR NR NR	0 0 0 0 0 0 0
Local Lists of Registered	d Storage Tar	nks						
SWEEPS UST HIST UST CA FID UST CERS TANKS	0.250 0.250 0.250 0.250		0 0 0 0	0 0 0 0	NR NR NR NR	NR NR NR NR	NR NR NR NR	0 0 0 0
Local Land Records								
LIENS	TP		NR	NR	NR	NR	NR	0

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
LIENS 2 DEED	TP 0.500		NR 0	NR 0	NR 0	NR NR	NR NR	0 0
Records of Emergency F	Release Repo	rts						
HMIRS CHMIRS LDS MCS SPILLS 90	TP TP TP TP TP		NR NR NR NR NR	NR NR NR NR NR	NR NR NR NR NR	NR NR NR NR NR	NR NR NR NR NR	0 0 0 0
Other Ascertainable Rec	ords							
RCRA NonGen / NLR FUDS DOD SCRD DRYCLEANERS US FIN ASSUR EPA WATCH LIST 2020 COR ACTION TSCA TRIS SSTS ROD RMP RAATS PRP PADS ICIS FTTS MLTS COAL ASH DOE COAL ASH EPA PCB TRANSFORMER RADINFO HIST FTTS DOT OPS CONSENT INDIAN RESERV FUSRAP UMTRA LEAD SMELTERS US AIRS US MINES ABANDONED MINES FINDS DOCKET HWC ECHO	0.250 1.000 1.000 0.500 TP TP 0.250 TP TP TP 1.000 TP		0 0 0 0 0 RR 0 RR R O RR RR RR RR O RR RR RR O O O O	1 0 0 0 RR 0 RR N 0 RR RR RR RR O RR RR O O O O O RR O O RR RR	$N \circ \circ \circ NRRRRR \circ NRRRRR \circ NRRRR \circ NRRRRR \circ NRRRRR \circ NRRRRRRRR$	N O O N N N N N N N N N N N N N N N N N	N N N N N N N N N N N N N N N N N N N	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
UXO FUELS PROGRAM CA BOND EXP. PLAN Cortese CUPA Listings	1.000 0.250 1.000 0.500 0.250		0 0 0 0 0	0 0 0 0 0	0 NR 0 0 NR	0 NR 0 NR NR	NR NR NR NR NR	0 0 0 0 0

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
DRYCLEANERS EMI ENF Financial Assurance HAZNET ICE HIST CORTESE LOS ANGELES CO. HMS HWP HWT MINES MWMP NPDES PEST LIC PROC Notify 65 LA Co. Site Mitigation UIC UIC GEO WASTEWATER PITS WDS WIP MILITARY PRIV SITES PROJECT WDR CIWQS CERS NON-CASE INFO OTHER OIL GAS PROD WATER PONDS SAMPLING POINT WELL STIM PROJ LOS ANGELES CO LF ME	0.250 TP TP TP TP 0.500 TP 1.000 0.250 0.250 0.250 TP TP 0.500 1.000 TP		0 R R R R R O O O O O R R O O O R R R O R O R	ORR R R R O R O O O O R R O O R R O R O	NR RR NR O RORR RR RR O O RR RR O NR RR RR RR RR NR NR NR NR RR RR RR RR			
EDR HIGH RISK HISTORICAL	RECORDS							
EDR Exclusive Records EDR MGP EDR Hist Auto EDR Hist Cleaner	1.000 0.125 0.125		0 0 0	0 NR NR	0 NR NR	0 NR NR	NR NR NR	0 0 0
EDR RECOVERED GOVERNI	MENT ARCHIVE	<u>s</u>						
Exclusive Recovered Gov								_
RGA LF RGA LUST	TP TP		NR NR	NR NR	NR NR	NR NR	NR NR	0 0
- Totals		0	0	1	0	1	0	2

Search

Distance (Miles)

Target Property

< 1/8 1/8 - 1/4

1/4 - 1/2

1/2 - 1

> 1

Total Plotted

NOTES:

Database

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

Direction Distance

Elevation Site Database(s) EPA ID Number

KATHERINE MARINARO RCRA NonGen / NLR 1024779479
SW 5911 BUSCH DR CAC002999435

SSW 5911 BUSCH DR 1/8-1/4 MALIBU, CA 90265

0.208 mi. 1098 ft.

Relative: RCRA NonGen / NLR:

Lower Date form received by agency: 02/04/2019

Actual: Facility name: KATHERINE MARINARO
242 ft. Facility address: 5911 BUSCH DR
MALIBU, CA 90265

EPA ID: CAC002999435

Contact: KATHERINE MARINARO

Contact address: 5911 BUSCH DR

MALIBU, CA 90265

Contact country: Not reported Contact telephone: 310-924-0904

Contact email: CAROLYN.KBEINC@GMAIL.COM

EPA Region: 09

Classification: Non-Generator

Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name: KATHERINE MARINARO

Owner/operator address: 5911 BUSCH DR

MALIBU, CA 90265

Owner/operator country: Not reported Owner/operator telephone: 310-924-0904 Owner/operator email: Not reported Owner/operator fax: Not reported Owner/operator extension: Not reported Legal status: Other Owner/Operator Type: Owner Owner/Op start date: Not reported Owner/Op end date: Not reported

Owner/operator name: KATHERINE MARINARO
Owner/operator address: 5911 BUSCH DR

MALIBU, CA 90265

Owner/operator country: Not reported 310-924-0904 Owner/operator telephone: Owner/operator email: Not reported Owner/operator fax: Not reported Owner/operator extension: Not reported Legal status: Other Operator Owner/Operator Type: Owner/Op start date: Not reported Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No Mixed waste (haz. and radioactive): No Recycler of hazardous waste: No Transporter of hazardous waste: No Treater, storer or disposer of HW: No Underground injection activity: No On-site burner exemption: No Furnace exemption: No **EDR ID Number**

MAP FINDINGS Map ID

Direction Distance

EDR ID Number Elevation Site Database(s) **EPA ID Number**

KATHERINE MARINARO (Continued)

1024779479

Used oil fuel burner: No Used oil processor: No User oil refiner: No Used oil fuel marketer to burner: No Used oil Specification marketer: No Used oil transfer facility: No Used oil transporter: No

No violations found Violation Status:

MALIBU HIGH SCHOOL ENVIROSTOR S101297478 SW **30215 MORNING VIEW DR LUST** N/A

1/2-1 MALIBU, CA 90265 SCH 0.625 mi. **SWEEPS UST** 3298 ft. DFFD

HIST CORTESE Relative: **CERS** Lower

ENVIROSTOR: Actual: 96 ft.

MALIBU HIGH SCHOOL PROJECT Name: 30215 MORNING VIEW DRIVE Address:

City,State,Zip: MALIBU, CA 90265

Facility ID: 19820092

Certified O&M - Land Use Restrictions Only Status:

Status Date: 05/09/2016 Site Code: 304164 School Cleanup Site Type: Site Type Detailed: School

Acres: 79.99 NO NPL: **SMBRP** Regulatory Agencies: Lead Agency: **SMBRP** Program Manager:

Johnson Abraham Supervisor: Shahir Haddad

Division Branch: Southern California Schools & Brownfields Outreach

Assembly: 50 Senate: 27

Special Program: Voluntary Cleanup Program

Restricted Use: YES

NONE SPECIFIED Site Mgmt Req: Funding: School District Latitude: 34.02339 Longitude: -118.8249 APN: NONE SPECIFIED

Past Use: * EDUCATIONAL SERVICES

Benzene Chlordane DDE DDT Lead Polychlorinated biphenyls (PCBs PCBs Potential COC:

(unspeciated mixture, high risk, e.g. Aroclor 1254 No Contaminants

found

Confirmed COC: Benzene Chlordane DDE DDT Lead PCBs (unspeciated mixture, high risk,

e.g. Aroclor 1254 30018-NO

Potential Description: NMA, SOIL, SV Alias Name: CABARILLO ES Alias Type: Alternate Name Alias Name: JUAN CABARILLO ES Alias Type: Alternate Name

Alias Name: MALIBU HIGH SCHOOL PROJECT

Alias Type: Alternate Name

SANTA MONICA-MALIBU UNIFIED SCHOOL DIST. Alias Name:

Alias Type: Alternate Name

Direction Distance

Elevation Site Database(s) EPA ID Number

MALIBU HIGH SCHOOL (Continued)

S101297478

EDR ID Number

Alias Name: SANTA MONICA-MALIBU USD-MALIBU HIGH/CDE

Alias Type: Alternate Name

Alias Name: 301648

Alias Type: Project Code (Site Code)

Alias Name: 304164

Alias Type: Project Code (Site Code)

Alias Name: 19820092

Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: PROJECT WIDE Completed Sub Area Name: Not reported

Completed Document Type: Site Inspections/Visit (Non LUR)

Completed Date: 05/01/2000 Comments: Not reported

Completed Area Name: PROJECT WIDE Completed Sub Area Name: Not reported

Completed Document Type: School Cleanup Agreement

Completed Date: 11/21/2014 Comments: Not reported

Completed Area Name: PROJECT WIDE Completed Sub Area Name: Not reported

Completed Document Type: Voluntary Cleanup Agreement

Completed Date: 11/06/2014 Comments: Not reported

Completed Area Name: PROJECT WIDE Completed Sub Area Name: Not reported

Completed Document Type: Voluntary Cleanup Agreement

Completed Date: 03/12/2014 Comments: Not reported

Completed Area Name: PROJECT WIDE Completed Sub Area Name: Not reported

Completed Document Type: Amendment - Order/Agreement

Completed Date: 08/22/2014

Comments: SMMUSD VIA Amendment signed 8/22/2014

Completed Area Name: PROJECT WIDE Completed Sub Area Name: Not reported

Completed Document Type: CEQA - Notice of Exemption

Completed Date: 11/15/2014
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction

Completed Date: 03/29/2016

Comments: On 3/29/2016, the Santa Monica Malibu Unified School District

(SMMUSD)recorded the Land Use Covenant LUC)for the 0.66 acre Bus Barn Area (Property) with the Los Angeles County Recorder's Office. The

Preliminary Environmental Assessment (PEA) confirmed the presence of volatile organic compounds (VOCs)in soil vapor remain at the Property above levels acceptable for unrestricted (residential)land use. A Human Health Screening Evaluation was performed for the Property

which concluded that no significant risks due to exposure to

Direction Distance Elevation

on Site Database(s) EPA ID Number

MALIBU HIGH SCHOOL (Continued)

S101297478

EDR ID Number

chemicals in soil vapor would be expected for the current or future school students and teachers/staff. However, re-evaluation of risk associated with soil vapor would be required if the land use at the Property is re-zoned for future residential use.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Certification
Completed Date: 05/09/2016

Comments: On 5/09/2016, DTSC signed the Site Certification letter for 79.33

acres at the total 80 acre property. A Land Use Covenant (deed restriction) was filed for the Site's 0.66 acre Bus Barn Area on 3/29/2016. The Land Use Covenant was filed to prevent the Bus Barn Area being used for future unrestricted use (i.e., residential use). DTSC determined the remaining 79.33 acres at the Site are suitable

for unrestricted use.

Completed Area Name: PROJECT WIDE Completed Sub Area Name: Not reported

Completed Document Type: Annual Oversight Cost Estimate

Completed Date: 09/18/2018

Comments: FY 1819 Estimate: \$2,769

Completed Area Name: PROJECT WIDE Completed Sub Area Name: Not reported

Completed Document Type: Annual Oversight Cost Estimate

Completed Date: 09/01/2017

Comments: Annual cost estimate letter sent 9/1/17.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase 1
Completed Date: 05/09/2000

Comments: Phase I - Pursuant to an agreement between the Department of Toxic

Substances Control (DTSC) and the California Department of Education, DTSC's Site Mitigation Program conducted a review of a Phase I Environmental Assessment prepared for the Malibu High School Site

property.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 10/01/2008

Comments: DTSC comment on NOP for EIR

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 07/01/2011

Comments: July 2011 EIR approved by SMUSD

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Community Profile
Completed Date: 04/04/2014
Comments: Not reported

Map ID MAP FINDINGS
Direction

Distance

Elevation Site Database(s) EPA ID Number

MALIBU HIGH SCHOOL (Continued)

S101297478

EDR ID Number

Completed Area Name: PROJECT WIDE Completed Sub Area Name: Not reported

Completed Document Type: Preliminary Endangerment Assessment Workplan

Completed Date: 06/30/2014 Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 08/13/2014
Comments: Not reported

Completed Area Name: PROJECT WIDE Completed Sub Area Name: Not reported

Completed Document Type: Preliminary Endangerment Assessment Report

Completed Date: 06/29/2015 Comments: Not reported

Completed Area Name: PROJECT WIDE Completed Sub Area Name: Not reported

Completed Document Type: Preliminary Endangerment Assessment Workplan

Completed Date: 10/14/2014
Comments: Not reported

Completed Area Name: PROJECT WIDE Completed Sub Area Name: Not reported

Completed Document Type: Removal Action Workplan

Completed Date: 12/15/2014
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Community Profile
12/15/2014

Comments: Final Community Profile

Completed Area Name: PROJECT WIDE Completed Sub Area Name: Not reported

Completed Document Type: Removal Action Completion Report

Completed Date: 03/26/2015 Comments: Not reported

Completed Area Name: PROJECT WIDE Completed Sub Area Name: Not reported

Completed Document Type: Preliminary Endangerment Assessment Report

Completed Date: 11/23/2015

Comments: DTSC approved the Final Revised PEA and Site-wide Human Health Risk

Screening Evaluation on 11/23/2015. The approval letter stated the approximately 0.66 acre Bus Barn Area (also known as Are of Interest

9) is not suitable for unrestricted (residential use) and will

require land a covenant. DTSC determined the remainder of the Site, including the Malibu High School Building Area G is suitable for unrestricted use. DTSC will issue a certification for the Site

property after the SMMUSD has filed the land use restriction with the

Los Angeles County Recorder's Office.

Completed Area Name: PROJECT WIDE

Direction Distance

Elevation Site Database(s) EPA ID Number

MALIBU HIGH SCHOOL (Continued)

S101297478

EDR ID Number

Completed Sub Area Name: Not reported

Completed Document Type: Land Use Restriction Monitoring Report

Completed Date: 05/24/2018

Comments: DTSC approved the Report.

Completed Area Name: PROJECT WIDE Completed Sub Area Name: Not reported

Completed Document Type: Land Use Restriction Monitoring Report

Completed Date: 02/15/2019
Comments: Not reported

Future Area Name: PROJECT WIDE Future Sub Area Name: Not reported

Future Document Type: 5 Year Review Reports

Future Due Date: 2021

Schedule Area Name: Not reported Schedule Sub Area Name: Not reported Schedule Document Type: Not reported Schedule Due Date: Not reported Schedule Revised Date: Not reported

LUST:

Name: MALIBU HIGH SCHOOL Address: 30215 MORNING VIEW DR

City, State, Zip: MALIBU, CA 90265

Lead Agency: LOS ANGELES RWQCB (REGION 4)

Case Type: LUST Cleanup Site

Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0603704051

Global Id: T0603704051 Latitude: 34.0242177 Longitude: -118.8280918

Status: Completed - Case Closed

Status Date: 09/11/1996 Case Worker: YR RB Case Number: I-13216

Local Agency: LOS ANGELES COUNTY

File Location: Not reported Local Case Number: Not reported

Potential Media Affect: Aquifer used for drinking water supply Potential Contaminants of Concern: Other Solvent or Non-Petroleum Hydrocarbon

Site History: Not reported

LUST:

Global Id: T0603704051

Contact Type: Local Agency Caseworker

Contact Name: JOHN AWUJO

Organization Name: LOS ANGELES COUNTY
Address: 900 S FREMONT AVE

City: ALHAMBRA

Email: jawujo@dpw.lacounty.gov

Phone Number: 6264583507

Global Id: T0603704051

Contact Type: Regional Board Caseworker

Contact Name: YUE RONG

Organization Name: LOS ANGELES RWQCB (REGION 4)

Address: 320 W. 4TH ST., SUITE 200

Direction Distance

Elevation Site Database(s) EPA ID Number

MALIBU HIGH SCHOOL (Continued)

S101297478

EDR ID Number

City: Los Angeles

Email: yrong@waterboards.ca.gov

Phone Number: Not reported

LUST:

 Global Id:
 T0603704051

 Action Type:
 Other

 Date:
 08/26/1992

 Action:
 Leak Discovery

 Global Id:
 T0603704051

 Action Type:
 Other

 Date:
 02/18/1993

 Action:
 Leak Reported

LUST:

Global Id: T0603704051

Status: Completed - Case Closed

Status Date: 09/11/1996

Global Id: T0603704051

Status: Open - Case Begin Date

Status Date: 08/26/1992

Global Id: T0603704051

Status: Open - Site Assessment

Status Date: 02/18/1993

LUST REG 4:

Region: 4
Regional Board: 04

County: Los Angeles
Facility Id: I-13216
Status: Case Closed
Substance: Hydrocarbons
Substance Quantity: Not reported
Local Case No: Not reported
Case Type: Groundwater

Abatement Method Used at the Site: Not reported

Global ID: T0603704051
W Global ID: Not reported
Staff: UNK
Local Agency: 19000

Cross Street: PACIFIC COAST HWY

Enforcement Type: Not reported Date Leak Discovered: 8/26/1992

Date Leak First Reported: 2/18/1993

Date Leak Record Entered: 2/12/1993
Date Confirmation Began: Not reported
Date Leak Stopped: Not reported

Date Case Last Changed on Database: 11/6/1996
Date the Case was Closed: 9/11/1996

How Leak Discovered: Not reported How Leak Stopped: Not reported Cause of Leak: Not reported

Direction Distance

Elevation Site Database(s) EPA ID Number

MALIBU HIGH SCHOOL (Continued)

S101297478

EDR ID Number

Leak Source: Not reported
Operator: Not reported
Water System: Not reported
Well Name: Not reported

Approx. Dist To Production Well (ft): 24678.062549386516025460773732

Source of Cleanup Funding: Not reported Preliminary Site Assessment Workplan Submitted: 2/18/1993 Preliminary Site Assessment Began: Not reported Pollution Characterization Began: Not reported Remediation Plan Submitted: Not reported Remedial Action Underway: Not reported Not reported Post Remedial Action Monitoring Began: **Enforcement Action Date:** Not reported Historical Max MTBE Date: Not reported Hist Max MTBE Conc in Groundwater: Not reported Hist Max MTBE Conc in Soil: Not reported Significant Interim Remedial Action Taken: Not reported

GW Qualifier: Not reported Soil Qualifier: Not reported Organization: Not reported Owner Contact: Not reported

Responsible Party: SANTA MONICA-MALIBU USD

RP Address: 1651 16TH ST., SANTA MONICA CA 90404

Program: LUST 34.0242177 / -1 Lat/Long: Not reported Local Agency Staff: Beneficial Use: Not reported Priority: Not reported Cleanup Fund Id: Not reported Suspended: Not reported Assigned Name: Not reported

Summary: SITE FILE RWB ASSESSMENT BY JDP ON 5/31/96

SCH:

Name: MALIBU HIGH SCHOOL PROJECT Address: 30215 MORNING VIEW DRIVE

City,State,Zip: MALIBU, CA 90265

Facility ID: 19820092
Site Type: School Cleanup

Site Type Detail: School

Site Mgmt. Req.: NONE SPECIFIED

Acres: 79.99
National Priorities List: NO
Cleanup Oversight Agencies: SMBRP
Lead Agency: SMBRP

Lead Agency Description: DTSC - Site Cleanup Program

Project Manager: Johnson Abraham Supervisor: Shahir Haddad

Division Branch: Southern California Schools & Brownfields Outreach

 Site Code:
 304164

 Assembly:
 50

 Senate:
 27

Special Program Status: Voluntary Cleanup Program

Status: Certified O&M - Land Use Restrictions Only

Status Date: 05/09/2016 Restricted Use: YES

MAP FINDINGS Map ID

Direction Distance

Elevation Site Database(s) **EPA ID Number**

MALIBU HIGH SCHOOL (Continued)

S101297478

EDR ID Number

Funding: School District 34.02339 Latitude: -118.8249 Longitude:

APN: NONE SPECIFIED

Past Use: * EDUCATIONAL SERVICES

Benzene, Chlordane, DDE, DDT, Lead, Polychlorinated biphenyls (PCBs, Potential COC:

PCBs (unspeciated mixture, high risk, e.g. Aroclor 1254, No

Contaminants found

Confirmed COC: Benzene, Chlordane, DDE, DDT, Lead, PCBs (unspeciated mixture, high

risk, e.g. Aroclor 1254, 30018-NO

NMA, SOIL, SV Potential Description: **CABARILLO ES** Alias Name: Alias Type: Alternate Name Alias Name: JUAN CABARILLO ES Alias Type: Alternate Name

Alias Name: MALIBU HIGH SCHOOL PROJECT

Alias Type: Alternate Name

SANTA MONICA-MALIBU UNIFIED SCHOOL DIST. Alias Name:

Alias Type: Alternate Name

SANTA MONICA-MALIBU USD-MALIBU HIGH/CDE Alias Name:

Alias Type: Alternate Name

Alias Name: 301648

Project Code (Site Code) Alias Type:

Alias Name: 304164

Alias Type: Project Code (Site Code)

Alias Name: 19820092

Alias Type: **Envirostor ID Number**

Completed Info:

Completed Area Name: PROJECT WIDE Not reported Completed Sub Area Name:

Completed Document Type: Site Inspections/Visit (Non LUR)

Completed Date: 05/01/2000 Comments: Not reported

PROJECT WIDE Completed Area Name: Completed Sub Area Name: Not reported

Completed Document Type: School Cleanup Agreement

Completed Date: 11/21/2014 Comments: Not reported

PROJECT WIDE Completed Area Name: Completed Sub Area Name: Not reported

Completed Document Type: Voluntary Cleanup Agreement

Completed Date: 11/06/2014 Comments: Not reported

Completed Area Name: PROJECT WIDE Completed Sub Area Name: Not reported

Completed Document Type: Voluntary Cleanup Agreement

Completed Date: 03/12/2014 Comments: Not reported

PROJECT WIDE Completed Area Name: Completed Sub Area Name: Not reported

Completed Document Type: Amendment - Order/Agreement

Completed Date: 08/22/2014

SMMUSD VIA Amendment signed 8/22/2014 Comments:

Map ID MAP FINDINGS
Direction

Distance

Elevation Site Database(s) EPA ID Number

MALIBU HIGH SCHOOL (Continued)

S101297478

EDR ID Number

Completed Area Name: PROJECT WIDE Completed Sub Area Name: Not reported

Completed Document Type: CEQA - Notice of Exemption

Completed Date: 11/15/2014
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction
Completed Date: 03/29/2016

Comments: On 3/29/2016, the Santa Monica Malibu Unified School District

(SMMUSD)recorded the Land Use Covenant LUC)for the 0.66 acre Bus Barn

Area (Property) with the Los Angeles County Recorder's Office. The Preliminary Environmental Assessment (PEA) confirmed the presence of volatile organic compounds (VOCs)in soil vapor remain at the Property above levels acceptable for unrestricted (residential)land use. A Human Health Screening Evaluation was performed for the Property

which concluded that no significant risks due to exposure to chemicals in soil vapor would be expected for the current or future school students and teachers/staff. However, re-evaluation of risk associated with soil vapor would be required if the land use at the

Property is re-zoned for future residential use.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Certification
Completed Date: 05/09/2016

Comments: On 5/09/2016, DTSC signed the Site Certification letter for 79.33

acres at the total 80 acre property. A Land Use Covenant (deed restriction) was filed for the Site's 0.66 acre Bus Barn Area on 3/29/2016. The Land Use Covenant was filed to prevent the Bus Barn Area being used for future unrestricted use (i.e., residential use). DTSC determined the remaining 79.33 acres at the Site are suitable

for unrestricted use.

Completed Area Name: PROJECT WIDE Completed Sub Area Name: Not reported

Completed Document Type: Annual Oversight Cost Estimate

Completed Date: 09/18/2018

Comments: FY 1819 Estimate: \$2,769

Completed Area Name: PROJECT WIDE Completed Sub Area Name: Not reported

Completed Document Type: Annual Oversight Cost Estimate

Completed Date: 09/01/2017

Comments: Annual cost estimate letter sent 9/1/17.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase 1
Completed Date: 05/09/2000

Comments: Phase I - Pursuant to an agreement between the Department of Toxic

Substances Control (DTSC) and the California Department of Education, DTSC's Site Mitigation Program conducted a review of a Phase I Environmental Assessment prepared for the Malibu High School Site

property.

Map ID MAP FINDINGS
Direction

Distance

Elevation Site Database(s) EPA ID Number

MALIBU HIGH SCHOOL (Continued)

S101297478

EDR ID Number

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 10/01/2008

Comments: DTSC comment on NOP for EIR

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 07/01/2011

Comments: July 2011 EIR approved by SMUSD

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Community Profile
04/04/2014
Comments: Not reported

Completed Area Name: PROJECT WIDE Completed Sub Area Name: Not reported

Completed Document Type: Preliminary Endangerment Assessment Workplan

Completed Date: 06/30/2014
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 08/13/2014
Comments: Not reported

Completed Area Name: PROJECT WIDE Completed Sub Area Name: Not reported

Completed Document Type: Preliminary Endangerment Assessment Report

Completed Date: 06/29/2015 Comments: Not reported

Completed Area Name: PROJECT WIDE Completed Sub Area Name: Not reported

Completed Document Type: Preliminary Endangerment Assessment Workplan

Completed Date: 10/14/2014
Comments: Not reported

Completed Area Name: PROJECT WIDE Completed Sub Area Name: Not reported

Completed Document Type: Removal Action Workplan

Completed Date: 12/15/2014
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Community Profile
Completed Date: 12/15/2014

Comments: Final Community Profile

Completed Area Name: PROJECT WIDE Completed Sub Area Name: Not reported

Completed Document Type: Removal Action Completion Report

Direction Distance

Elevation Site Database(s) EPA ID Number

MALIBU HIGH SCHOOL (Continued)

S101297478

EDR ID Number

Completed Date: 03/26/2015 Comments: Not reported

Completed Area Name: PROJECT WIDE Completed Sub Area Name: Not reported

Completed Document Type: Preliminary Endangerment Assessment Report

Completed Date: 11/23/2015

Comments: DTSC approved the Final Revised PEA and Site-wide Human Health Risk

Screening Evaluation on 11/23/2015. The approval letter stated the approximately 0.66 acre Bus Barn Area (also known as Are of Interest

9) is not suitable for unrestricted (residential use) and will

require land a covenant. DTSC determined the remainder of the Site, including the Malibu High School Building Area G is suitable for unrestricted use. DTSC will issue a certification for the Site

property after the SMMUSD has filed the land use restriction with the

Los Angeles County Recorder's Office.

Completed Area Name: PROJECT WIDE Completed Sub Area Name: Not reported

Completed Document Type: Land Use Restriction Monitoring Report

Completed Date: 05/24/2018

Comments: DTSC approved the Report.

Completed Area Name: PROJECT WIDE Completed Sub Area Name: Not reported

Completed Document Type: Land Use Restriction Monitoring Report

Completed Date: 02/15/2019
Comments: Not reported

Future Area Name: PROJECT WIDE Future Sub Area Name: Not reported

Future Document Type: 5 Year Review Reports

Future Due Date: 2021

Schedule Area Name:
Schedule Sub Area Name:
Schedule Document Type:
Schedule Due Date:
Schedule Revised Date:
Not reported
Not reported
Not reported
Not reported
Not reported

SWEEPS UST:

Name: SANTA MONICA MALIBU UNI SCH D

Address: 30215 MORNINGVIEW DR

City: MALIBU
Status: Active
Comp Number: 13216
Number: 9

Board Of Equalization: 44-010099
Referral Date: 03-15-91
Action Date: 03-15-91
Created Date: 06-30-89
Owner Tank Id: Not reported

SWRCB Tank ld: 19-000-013216-000001

Tank Status: A

Capacity: Not reported Active Date: 06-30-89 Tank Use: UNKNOWN

STG: W

MAP FINDINGS Map ID

Direction Distance

Elevation Site Database(s) **EPA ID Number**

MALIBU HIGH SCHOOL (Continued)

S101297478

EDR ID Number

Content: Not reported

Number Of Tanks:

Name: SANTA MONICA MALIBU UNI SCH D

Address: 30215 MORNINGVIEW DR

City: **MALIBU** Status: Active 13216 Comp Number: Number:

Board Of Equalization: 44-010099 Referral Date: 03-15-91 Action Date: 03-15-91 Created Date: 06-30-89 Owner Tank Id: Not reported

SWRCB Tank Id: 19-000-013216-000002

Tank Status:

Not reported Capacity: Active Date: 06-30-89 UNKNOWN Tank Use:

W STG:

Content: Not reported Number Of Tanks: Not reported

DEED:

MALIBU HIGH SCHOOL PROJECT Name: 30215 MORNING VIEW DRIVE Address:

MALIBU, CA 90265 City, State, Zip:

Envirostor ID: 19820092 PROJECT WIDE Area: Sub Area: Not reported Site Type: SCHOOL CLEANUP

Status: CERTIFIED O&M - LAND USE RESTRICTIONS ONLY

Agency: Not reported Covenant Uploaded: Not reported

Deed Date(s): 03/29/2016

Envirostor Land Use Restrictions File Name:

HIST CORTESE:

MALIBU HIGH SCHOOL edr_fname: 30215 MORNING VIEW edr_fadd1:

City,State,Zip: MALIBU, CA Region: CORTESE Facility County Code: 19 Reg By: **LTNKA** I-13216 Reg Id:

CERS:

Name: MALIBU HIGH SCHOOL 30215 MORNING VIEW DR Address:

City,State,Zip: MALIBU, CA 90265

Site ID: 242824 CERS ID: T0603704051

CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:

Affiliation Type Desc: Local Agency Caseworker

MAP FINDINGS Map ID

Direction Distance

EDR ID Number Elevation Site Database(s) **EPA ID Number**

MALIBU HIGH SCHOOL (Continued)

S101297478

JOHN AWUJO - LOS ANGELES COUNTY Entity Name:

Entity Title: Not reported

Affiliation Address: 900 S FREMONT AVE

Affiliation City: ALHAMBRA

Affiliation State: CA

Affiliation Country: Not reported Affiliation Zip: Not reported Affiliation Phone: 6264583507

Affiliation Type Desc: Regional Board Caseworker

Entity Name: YUE RONG - LOS ANGELES RWQCB (REGION 4)

Entity Title: Not reported

Affiliation Address: 320 W. 4TH ST., SUITE 200

Affiliation City: Los Angeles

Affiliation State:

Affiliation Country: Not reported Affiliation Zip: Not reported Affiliation Phone: Not reported

Name: MALIBU HIGH SCHOOL P 30215 MORNING VIEW DRIVE Address:

City, State, Zip: MALIBU. CA 90265

Site ID: 339638 CERS ID: 19820092 School Cleanup CERS Description:

Affiliation:

Affiliation Type Desc: Supervisor SHAHIR HADDAD Entity Name: Entity Title: Not reported Affiliation Address: Not reported Affiliation City: Not reported Affiliation State: Not reported Not reported Affiliation Country: Affiliation Zip: Not reported Affiliation Phone: Not reported

Affiliation Type Desc: Lead Project Manager JOHNSON ABRAHAM Entity Name:

Entity Title: Not reported Affiliation Address: Not reported Affiliation City: **CYPRESS** Affiliation State:

Affiliation Country: Not reported Affiliation Zip: Not reported Affiliation Phone: Not reported Count: 0 records. ORPHAN SUMMARY

City EDR ID Site Name Site Address Zip Database(s)

NO SITES FOUND

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 04/11/2019 Date Data Arrived at EDR: 04/18/2019

Date Made Active in Reports: 05/14/2019

Number of Days to Update: 26

Source: EPA Telephone: N/A

Last EDR Contact: 07/02/2019

Next Scheduled EDR Contact: 10/14/2019 Data Release Frequency: Quarterly

NPL Site Boundaries

Sources

EPA's Environmental Photographic Interpretation Center (EPIC)

Telephone: 202-564-7333

EPA Region 1 EPA Region 6

Telephone 617-918-1143 Telephone: 214-655-6659

EPA Region 3 EPA Region 7

Telephone 215-814-5418 Telephone: 913-551-7247

EPA Region 4 EPA Region 8

Telephone 404-562-8033 Telephone: 303-312-6774

EPA Region 5 EPA Region 9

Telephone 312-886-6686 Telephone: 415-947-4246

EPA Region 10

Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 04/11/2019 Date Data Arrived at EDR: 04/18/2019 Date Made Active in Reports: 05/14/2019

Number of Days to Update: 26

Source: EPA Telephone: N/A

Last EDR Contact: 07/02/2019

Next Scheduled EDR Contact: 10/14/2019 Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991 Date Data Arrived at EDR: 02/02/1994 Date Made Active in Reports: 03/30/1994

Number of Days to Update: 56

Source: EPA

Telephone: 202-564-4267 Last EDR Contact: 08/15/2011

Next Scheduled EDR Contact: 11/28/2011 Data Release Frequency: No Update Planned

Federal Delisted NPL site list

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 04/11/2019 Date Data Arrived at EDR: 04/18/2019 Date Made Active in Reports: 05/14/2019

Number of Days to Update: 26

Source: EPA Telephone: N/A

Last EDR Contact: 07/02/2019

Next Scheduled EDR Contact: 10/14/2019 Data Release Frequency: Quarterly

Federal CERCLIS list

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 04/03/2019 Date Data Arrived at EDR: 04/05/2019 Date Made Active in Reports: 05/14/2019

Number of Days to Update: 39

Source: Environmental Protection Agency Telephone: 703-603-8704

Last EDR Contact: 07/03/2019

Next Scheduled EDR Contact: 10/14/2019 Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 04/11/2019 Date Data Arrived at EDR: 04/18/2019 Date Made Active in Reports: 05/23/2019

Number of Days to Update: 35

Source: EPA Telephone: 800-424-9346

Last EDR Contact: 07/02/2019

Next Scheduled EDR Contact: 10/14/2019
Data Release Frequency: Quarterly

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 04/11/2019 Date Data Arrived at EDR: 04/18/2019 Date Made Active in Reports: 05/23/2019

Number of Days to Update: 35

Source: EPA

Telephone: 800-424-9346 Last EDR Contact: 07/02/2019

Next Scheduled EDR Contact: 10/14/2019 Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 03/25/2019 Date Data Arrived at EDR: 03/27/2019 Date Made Active in Reports: 04/17/2019

Number of Days to Update: 21

Source: EPA

Telephone: 800-424-9346 Last EDR Contact: 06/26/2019

Next Scheduled EDR Contact: 10/07/2019 Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 03/25/2019 Date Data Arrived at EDR: 03/27/2019 Date Made Active in Reports: 04/17/2019

Number of Days to Update: 21

Source: Environmental Protection Agency

Telephone: (415) 495-8895 Last EDR Contact: 06/26/2019

Next Scheduled EDR Contact: 10/07/2019
Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/25/2019 Date Data Arrived at EDR: 03/27/2019 Date Made Active in Reports: 04/17/2019

Number of Days to Update: 21

Source: Environmental Protection Agency Telephone: (415) 495-8895

Last EDR Contact: 06/26/2019

Next Scheduled EDR Contact: 10/07/2019 Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 03/25/2019 Date Data Arrived at EDR: 03/27/2019 Date Made Active in Reports: 04/17/2019

Number of Days to Update: 21

Source: Environmental Protection Agency

Telephone: (415) 495-8895 Last EDR Contact: 06/26/2019

Next Scheduled EDR Contact: 10/07/2019
Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/25/2019 Date Data Arrived at EDR: 03/27/2019 Date Made Active in Reports: 04/17/2019

Number of Days to Update: 21

Source: Environmental Protection Agency

Telephone: (415) 495-8895 Last EDR Contact: 06/26/2019

Next Scheduled EDR Contact: 10/07/2019 Data Release Frequency: Quarterly

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 02/22/2019 Date Data Arrived at EDR: 03/07/2019 Date Made Active in Reports: 04/17/2019

Number of Days to Update: 41

Source: Department of the Navy Telephone: 843-820-7326 Last EDR Contact: 05/10/2019

Next Scheduled EDR Contact: 08/26/2019 Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 01/31/2019 Date Data Arrived at EDR: 02/04/2019 Date Made Active in Reports: 03/08/2019

Number of Days to Update: 32

Source: Environmental Protection Agency

Telephone: 703-603-0695 Last EDR Contact: 05/29/2019

Next Scheduled EDR Contact: 09/09/2019 Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 01/31/2019 Date Data Arrived at EDR: 02/04/2019 Date Made Active in Reports: 03/08/2019

Number of Days to Update: 32

Source: Environmental Protection Agency

Telephone: 703-603-0695 Last EDR Contact: 05/29/2019

Next Scheduled EDR Contact: 09/09/2019

Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous

substances.

Date of Government Version: 03/25/2019 Date Data Arrived at EDR: 03/26/2019 Date Made Active in Reports: 05/01/2019

Number of Days to Update: 36

Source: National Response Center, United States Coast Guard

Telephone: 202-267-2180 Last EDR Contact: 06/26/2019

Next Scheduled EDR Contact: 10/07/2019 Data Release Frequency: Quarterly

State- and tribal - equivalent NPL

RESPONSE: State Response Sites

Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity.

These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 04/29/2019 Date Data Arrived at EDR: 04/30/2019 Date Made Active in Reports: 06/27/2019

Number of Days to Update: 58

Source: Department of Toxic Substances Control

Telephone: 916-323-3400 Last EDR Contact: 04/30/2019

Next Scheduled EDR Contact: 08/12/2019 Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

ENVIROSTOR: EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

Date of Government Version: 04/29/2019 Date Data Arrived at EDR: 04/30/2019 Date Made Active in Reports: 06/27/2019

Number of Days to Update: 58

Source: Department of Toxic Substances Control

Telephone: 916-323-3400 Last EDR Contact: 04/30/2019

Next Scheduled EDR Contact: 08/12/2019 Data Release Frequency: Quarterly

State and tribal landfill and/or solid waste disposal site lists

SWF/LF (SWIS): Solid Waste Information System

Active, Closed and Inactive Landfills. SWF/LF records typically contain an inventory of solid waste disposal facilities or landfills. These may be active or i nactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 02/11/2019 Date Data Arrived at EDR: 02/12/2019 Date Made Active in Reports: 03/05/2019

Number of Days to Update: 21

Source: Department of Resources Recycling and Recovery

Telephone: 916-341-6320 Last EDR Contact: 05/14/2019

Next Scheduled EDR Contact: 08/26/2019 Data Release Frequency: Quarterly

State and tribal leaking storage tank lists

LUST REG 4: Underground Storage Tank Leak List

Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004 Date Data Arrived at EDR: 09/07/2004 Date Made Active in Reports: 10/12/2004

Number of Days to Update: 35

Source: California Regional Water Quality Control Board Los Angeles Region (4)

Telephone: 213-576-6710 Last EDR Contact: 09/06/2011

Next Scheduled EDR Contact: 12/19/2011 Data Release Frequency: No Update Planned

LUST REG 3: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003 Date Data Arrived at EDR: 05/19/2003 Date Made Active in Reports: 06/02/2003

Number of Days to Update: 14

Source: California Regional Water Quality Control Board Central Coast Region (3)

Telephone: 805-542-4786 Last EDR Contact: 07/18/2011

Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

LUST REG 2: Fuel Leak List

Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

Date of Government Version: 09/30/2004 Date Data Arrived at EDR: 10/20/2004 Date Made Active in Reports: 11/19/2004

Number of Days to Update: 30

Source: California Regional Water Quality Control Board San Francisco Bay Region (2)

Telephone: 510-622-2433 Last EDR Contact: 09/19/2011

Next Scheduled EDR Contact: 01/02/2012 Data Release Frequency: No Update Planned

LUST REG 1: Active Toxic Site Investigation

Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/2001 Date Data Arrived at EDR: 02/28/2001 Date Made Active in Reports: 03/29/2001

Number of Days to Update: 29

Source: California Regional Water Quality Control Board North Coast (1)

Telephone: 707-570-3769 Last EDR Contact: 08/01/2011

Next Scheduled EDR Contact: 11/14/2011 Data Release Frequency: No Update Planned

LUST REG 5: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

Date of Government Version: 07/01/2008 Date Data Arrived at EDR: 07/22/2008 Date Made Active in Reports: 07/31/2008

Number of Days to Update: 9

Source: California Regional Water Quality Control Board Central Valley Region (5)

Telephone: 916-464-4834 Last EDR Contact: 07/01/2011

Next Scheduled EDR Contact: 10/17/2011 Data Release Frequency: No Update Planned

LUST REG 6V: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino counties.

Date of Government Version: 06/07/2005 Date Data Arrived at EDR: 06/07/2005 Date Made Active in Reports: 06/29/2005

Number of Days to Update: 22

Source: California Regional Water Quality Control Board Victorville Branch Office (6)

Telephone: 760-241-7365 Last EDR Contact: 09/12/2011

Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 8: Leaking Underground Storage Tanks

California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005 Date Data Arrived at EDR: 02/15/2005 Date Made Active in Reports: 03/28/2005

Number of Days to Update: 41

Source: California Regional Water Quality Control Board Santa Ana Region (8)

Telephone: 909-782-4496 Last EDR Contact: 08/15/2011

Next Scheduled EDR Contact: 11/28/2011 Data Release Frequency: No Update Planned

LUST REG 7: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

Date of Government Version: 02/26/2004 Date Data Arrived at EDR: 02/26/2004 Date Made Active in Reports: 03/24/2004

Number of Days to Update: 27

Source: California Regional Water Quality Control Board Colorado River Basin Region (7)

Telephone: 760-776-8943 Last EDR Contact: 08/01/2011

Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST REG 6L: Leaking Underground Storage Tank Case Listing

For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/2003 Date Data Arrived at EDR: 09/10/2003 Date Made Active in Reports: 10/07/2003

Number of Days to Update: 27

Source: California Regional Water Quality Control Board Lahontan Region (6)

Telephone: 530-542-5572 Last EDR Contact: 09/12/2011

Next Scheduled EDR Contact: 12/26/2011 Data Release Frequency: No Update Planned

LUST REG 9: Leaking Underground Storage Tank Report

Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001 Date Data Arrived at EDR: 04/23/2001 Date Made Active in Reports: 05/21/2001

Number of Days to Update: 28

Source: California Regional Water Quality Control Board San Diego Region (9)

Telephone: 858-637-5595 Last EDR Contact: 09/26/2011

Next Scheduled EDR Contact: 01/09/2012 Data Release Frequency: No Update Planned

LUST: Leaking Underground Fuel Tank Report (GEOTRACKER)

Leaking Underground Storage Tank (LUST) Sites included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 12/10/2018
Date Data Arrived at EDR: 12/11/2018
Date Made Active in Reports: 01/15/2019

Number of Days to Update: 35

Source: State Water Resources Control Board

Telephone: see region list Last EDR Contact: 06/11/2019

Next Scheduled EDR Contact: 09/23/2019
Data Release Frequency: Quarterly

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 10/10/2018 Date Data Arrived at EDR: 03/08/2019 Date Made Active in Reports: 05/01/2019

Number of Days to Update: 54

Source: Environmental Protection Agency

Telephone: 415-972-3372 Last EDR Contact: 04/26/2019

Next Scheduled EDR Contact: 08/05/2019 Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 09/24/2018 Date Data Arrived at EDR: 03/12/2019 Date Made Active in Reports: 05/01/2019

Number of Days to Update: 50

Source: EPA Region 4 Telephone: 404-562-8677 Last EDR Contact: 04/26/2019

Next Scheduled EDR Contact: 08/05/2019 Data Release Frequency: Varies

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 10/17/2018 Date Data Arrived at EDR: 03/07/2019 Date Made Active in Reports: 05/01/2019

Number of Days to Update: 55

Source: EPA Region 10 Telephone: 206-553-2857 Last EDR Contact: 04/26/2019

Next Scheduled EDR Contact: 08/05/2019 Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 11/01/2018 Date Data Arrived at EDR: 03/07/2019 Date Made Active in Reports: 05/01/2019

Number of Days to Update: 55

Source: EPA Region 6 Telephone: 214-665-6597 Last EDR Contact: 04/26/2019

Next Scheduled EDR Contact: 08/05/2019 Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 02/19/2019 Date Data Arrived at EDR: 03/07/2019 Date Made Active in Reports: 05/01/2019

Number of Days to Update: 55

Source: EPA Region 7 Telephone: 913-551-7003 Last EDR Contact: 04/26/2019

Next Scheduled EDR Contact: 08/05/2019 Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 10/16/2018 Date Data Arrived at EDR: 03/07/2019 Date Made Active in Reports: 05/01/2019

Number of Days to Update: 55

Source: EPA Region 8 Telephone: 303-312-6271 Last EDR Contact: 04/26/2019

Next Scheduled EDR Contact: 08/05/2019 Data Release Frequency: Varies

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land

Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 10/12/2018 Date Data Arrived at EDR: 03/07/2019 Date Made Active in Reports: 05/01/2019

Number of Days to Update: 55

Source: EPA, Region 5 Telephone: 312-886-7439 Last EDR Contact: 04/26/2019

Next Scheduled EDR Contact: 08/05/2019 Data Release Frequency: Varies

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 10/13/2018 Date Data Arrived at EDR: 03/07/2019 Date Made Active in Reports: 05/01/2019

Number of Days to Update: 55

Source: EPA Region 1 Telephone: 617-918-1313 Last EDR Contact: 04/26/2019

Next Scheduled EDR Contact: 08/05/2019 Data Release Frequency: Varies

CPS-SLIC: Statewide SLIC Cases (GEOTRACKER)

Cleanup Program Sites (CPS; also known as Site Cleanups [SC] and formerly known as Spills, Leaks, Investigations, and Cleanups [SLIC] sites) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 12/10/2018 Date Data Arrived at EDR: 12/11/2018 Date Made Active in Reports: 01/15/2019

Number of Days to Update: 35

Source: State Water Resources Control Board

Telephone: 866-480-1028 Last EDR Contact: 06/11/2019

Next Scheduled EDR Contact: 09/23/2019 Data Release Frequency: Varies

SLIC REG 1: Active Toxic Site Investigations

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality

from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003 Date Data Arrived at EDR: 04/07/2003 Date Made Active in Reports: 04/25/2003

Number of Days to Update: 18

Source: California Regional Water Quality Control Board, North Coast Region (1)

Telephone: 707-576-2220 Last EDR Contact: 08/01/2011

Next Scheduled EDR Contact: 11/14/2011 Data Release Frequency: No Update Planned

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality

from spills, leaks, and similar discharges.

Date of Government Version: 09/30/2004 Date Data Arrived at EDR: 10/20/2004 Date Made Active in Reports: 11/19/2004

Number of Days to Update: 30

Source: Regional Water Quality Control Board San Francisco Bay Region (2)

Telephone: 510-286-0457 Last EDR Contact: 09/19/2011

Next Scheduled EDR Contact: 01/02/2012 Data Release Frequency: No Update Planned

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality

from spills, leaks, and similar discharges.

Date of Government Version: 05/18/2006 Date Data Arrived at EDR: 05/18/2006 Date Made Active in Reports: 06/15/2006

Number of Days to Update: 28

Source: California Regional Water Quality Control Board Central Coast Region (3)

Telephone: 805-549-3147 Last EDR Contact: 07/18/2011

Next Scheduled EDR Contact: 10/31/2011 Data Release Frequency: No Update Planned

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality

from spills, leaks, and similar discharges.

Date of Government Version: 11/17/2004 Date Data Arrived at EDR: 11/18/2004 Date Made Active in Reports: 01/04/2005

Number of Days to Update: 47

Source: Region Water Quality Control Board Los Angeles Region (4)

Telephone: 213-576-6600 Last EDR Contact: 07/01/2011

Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality

from spills, leaks, and similar discharges.

Date of Government Version: 04/01/2005 Date Data Arrived at EDR: 04/05/2005 Date Made Active in Reports: 04/21/2005

Number of Days to Update: 16

Source: Regional Water Quality Control Board Central Valley Region (5)

Telephone: 916-464-3291 Last EDR Contact: 09/12/2011

Next Scheduled EDR Contact: 12/26/2011 Data Release Frequency: No Update Planned

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality

from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005 Date Data Arrived at EDR: 05/25/2005 Date Made Active in Reports: 06/16/2005

Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch

Telephone: 619-241-6583 Last EDR Contact: 08/15/2011

Next Scheduled EDR Contact: 11/28/2011 Data Release Frequency: No Update Planned

SLIC REG 6L: SLIC Sites

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality

from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004 Date Data Arrived at EDR: 09/07/2004 Date Made Active in Reports: 10/12/2004

Number of Days to Update: 35

Source: California Regional Water Quality Control Board, Lahontan Region

Telephone: 530-542-5574 Last EDR Contact: 08/15/2011

Next Scheduled EDR Contact: 11/28/2011 Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality

from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004 Date Data Arrived at EDR: 11/29/2004 Date Made Active in Reports: 01/04/2005

Number of Days to Update: 36

Source: California Regional Quality Control Board, Colorado River Basin Region

Telephone: 760-346-7491 Last EDR Contact: 08/01/2011

Next Scheduled EDR Contact: 11/14/2011 Data Release Frequency: No Update Planned

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality

from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2008 Date Data Arrived at EDR: 04/03/2008 Date Made Active in Reports: 04/14/2008

Number of Days to Update: 11

Source: California Region Water Quality Control Board Santa Ana Region (8)

Telephone: 951-782-3298 Last EDR Contact: 09/12/2011

Next Scheduled EDR Contact: 12/26/2011 Data Release Frequency: No Update Planned

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality

from spills, leaks, and similar discharges.

Date of Government Version: 09/10/2007 Date Data Arrived at EDR: 09/11/2007 Date Made Active in Reports: 09/28/2007

Number of Days to Update: 17

Source: California Regional Water Quality Control Board San Diego Region (9)

Telephone: 858-467-2980 Last EDR Contact: 08/08/2011

Next Scheduled EDR Contact: 11/21/2011 Data Release Frequency: No Update Planned

State and tribal registered storage tank lists

FEMA UST: Underground Storage Tank Listing

A listing of all FEMA owned underground storage tanks.

Date of Government Version: 05/15/2017 Date Data Arrived at EDR: 05/30/2017 Date Made Active in Reports: 10/13/2017

Number of Days to Update: 136

Source: FEMA

Telephone: 202-646-5797 Last EDR Contact: 07/10/2019

Next Scheduled EDR Contact: 10/21/2019 Data Release Frequency: Varies

UST CLOSURE: Proposed Closure of Underground Storage Tank (UST) Cases

UST cases that are being considered for closure by either the State Water Resources Control Board or the Executive Director have been posted for a 60-day public comment period. UST Case Closures being proposed for consideration by the State Water Resources Control Board. These are primarily UST cases that meet closure criteria under the decisional framework in State Water Board Resolution No. 92-49 and other Board orders. UST Case Closures proposed for consideration by the Executive Director pursuant to State Water Board Resolution No. 2012-0061. These are cases that meet the criteria of the Low-Threat UST Case Closure Policy. UST Case Closure Review Denials and Approved Orders.

Date of Government Version: 03/11/2019 Date Data Arrived at EDR: 03/13/2019 Date Made Active in Reports: 04/03/2019

Number of Days to Update: 21

Source: State Water Resources Control Board

Telephone: 916-327-7844 Last EDR Contact: 06/12/2019

Next Scheduled EDR Contact: 09/23/2019 Data Release Frequency: Varies

UST: Active UST Facilities

Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 12/10/2018 Date Data Arrived at EDR: 12/11/2018 Date Made Active in Reports: 01/15/2019

Number of Days to Update: 35

Source: SWRCB Telephone: 916-341-5851 Last EDR Contact: 06/11/2019

Next Scheduled EDR Contact: 09/23/2019 Data Release Frequency: Semi-Annually

MILITARY UST SITES: Military UST Sites (GEOTRACKER)

Military ust sites

Date of Government Version: 12/10/2018 Date Data Arrived at EDR: 12/11/2018 Date Made Active in Reports: 01/15/2019

Number of Days to Update: 35

Source: State Water Resources Control Board

Telephone: 866-480-1028 Last EDR Contact: 06/11/2019

Next Scheduled EDR Contact: 09/23/2019 Data Release Frequency: Varies

AST: Aboveground Petroleum Storage Tank Facilities

A listing of aboveground storage tank petroleum storage tank locations.

Date of Government Version: 07/06/2016 Date Data Arrived at EDR: 07/12/2016 Date Made Active in Reports: 09/19/2016

Number of Days to Update: 69

Source: California Environmental Protection Agency

Telephone: 916-327-5092 Last EDR Contact: 06/17/2019

Next Scheduled EDR Contact: 09/30/2019

Data Release Frequency: Varies

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 10/03/2018 Date Data Arrived at EDR: 03/07/2019 Date Made Active in Reports: 05/01/2019

Number of Days to Update: 55

Source: EPA, Region 1 Telephone: 617-918-1313 Last EDR Contact: 04/26/2019

Next Scheduled EDR Contact: 08/05/2019 Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 09/24/2018 Date Data Arrived at EDR: 03/12/2019 Date Made Active in Reports: 05/01/2019

Number of Days to Update: 50

Source: EPA Region 4 Telephone: 404-562-9424 Last EDR Contact: 04/26/2019

Next Scheduled EDR Contact: 08/05/2019 Data Release Frequency: Varies

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 10/12/2018 Date Data Arrived at EDR: 03/07/2019 Date Made Active in Reports: 05/01/2019

Number of Days to Update: 55

Source: EPA Region 5 Telephone: 312-886-6136 Last EDR Contact: 04/26/2019

Next Scheduled EDR Contact: 08/05/2019 Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 11/01/2018 Date Data Arrived at EDR: 03/07/2019 Date Made Active in Reports: 05/01/2019

Number of Days to Update: 55

Source: EPA Region 6 Telephone: 214-665-7591 Last EDR Contact: 04/26/2019

Next Scheduled EDR Contact: 08/05/2019 Data Release Frequency: Varies

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 11/07/2018 Date Data Arrived at EDR: 03/07/2019 Date Made Active in Reports: 05/01/2019

Number of Days to Update: 55

Source: EPA Region 7 Telephone: 913-551-7003 Last EDR Contact: 04/26/2019

Next Scheduled EDR Contact: 08/05/2019 Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 10/16/2018 Date Data Arrived at EDR: 03/07/2019 Date Made Active in Reports: 05/01/2019

Number of Days to Update: 55

Source: EPA Region 8 Telephone: 303-312-6137 Last EDR Contact: 04/26/2019

Next Scheduled EDR Contact: 08/05/2019 Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 10/10/2018 Date Data Arrived at EDR: 03/08/2019 Date Made Active in Reports: 05/01/2019

Number of Days to Update: 54

Source: EPA Region 9 Telephone: 415-972-3368 Last EDR Contact: 04/26/2019

Next Scheduled EDR Contact: 08/05/2019 Data Release Frequency: Varies

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 10/17/2018 Date Data Arrived at EDR: 03/07/2019 Date Made Active in Reports: 05/01/2019

Number of Days to Update: 55

Source: EPA Region 10 Telephone: 206-553-2857 Last EDR Contact: 04/26/2019

Next Scheduled EDR Contact: 08/05/2019 Data Release Frequency: Varies

State and tribal voluntary cleanup sites

INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015 Date Data Arrived at EDR: 09/29/2015 Date Made Active in Reports: 02/18/2016

Number of Days to Update: 142

Source: EPA, Region 1 Telephone: 617-918-1102 Last EDR Contact: 06/20/2019

Next Scheduled EDR Contact: 10/07/2019 Data Release Frequency: Varies

VCP: Voluntary Cleanup Program Properties

Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 04/29/2019 Date Data Arrived at EDR: 04/30/2019 Date Made Active in Reports: 06/27/2019

Number of Days to Update: 58

Source: Department of Toxic Substances Control

Telephone: 916-323-3400 Last EDR Contact: 04/30/2019

Next Scheduled EDR Contact: 08/12/2019 Data Release Frequency: Quarterly

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008 Date Data Arrived at EDR: 04/22/2008 Date Made Active in Reports: 05/19/2008

Number of Days to Update: 27

Source: EPA, Region 7 Telephone: 913-551-7365 Last EDR Contact: 04/20/2009

Next Scheduled EDR Contact: 07/20/2009

Data Release Frequency: Varies

State and tribal Brownfields sites

BROWNFIELDS: Considered Brownfieds Sites Listing

A listing of sites the SWRCB considers to be Brownfields since these are sites have come to them through the MOA Process.

Date of Government Version: 03/25/2019 Date Data Arrived at EDR: 03/26/2019 Date Made Active in Reports: 04/29/2019

Number of Days to Update: 34

Source: State Water Resources Control Board

Telephone: 916-323-7905 Last EDR Contact: 06/25/2019

Next Scheduled EDR Contact: 10/07/2019 Data Release Frequency: Quarterly

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 12/17/2018 Date Data Arrived at EDR: 12/18/2018 Date Made Active in Reports: 01/11/2019

Number of Days to Update: 24

Source: Environmental Protection Agency

Telephone: 202-566-2777 Last EDR Contact: 06/04/2019

Next Scheduled EDR Contact: 09/30/2019 Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT: Waste Management Unit Database

Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

Date of Government Version: 04/01/2000 Date Data Arrived at EDR: 04/10/2000 Date Made Active in Reports: 05/10/2000

Number of Days to Update: 30

Source: State Water Resources Control Board

Telephone: 916-227-4448 Last EDR Contact: 04/25/2019

Next Scheduled EDR Contact: 08/12/2019
Data Release Frequency: No Update Planned

SWRCY: Recycler Database

A listing of recycling facilities in California.

Date of Government Version: 03/11/2019 Date Data Arrived at EDR: 03/13/2019 Date Made Active in Reports: 04/30/2019

Number of Days to Update: 48

Source: Department of Conservation

Telephone: 916-323-3836 Last EDR Contact: 06/12/2019

Next Scheduled EDR Contact: 09/23/2019 Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing A listing of registered waste tire haulers.

Date of Government Version: 03/26/2019 Date Data Arrived at EDR: 03/27/2019 Date Made Active in Reports: 04/30/2019

Number of Days to Update: 34

Source: Integrated Waste Management Board

Telephone: 916-341-6422 Last EDR Contact: 05/09/2019

Next Scheduled EDR Contact: 08/26/2019 Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998 Date Data Arrived at EDR: 12/03/2007 Date Made Active in Reports: 01/24/2008

Number of Days to Update: 52

Source: Environmental Protection Agency

Telephone: 703-308-8245 Last EDR Contact: 04/26/2019

Next Scheduled EDR Contact: 08/12/2019 Data Release Frequency: Varies

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985 Date Data Arrived at EDR: 08/09/2004 Date Made Active in Reports: 09/17/2004

Number of Days to Update: 39

Source: Environmental Protection Agency

Telephone: 800-424-9346 Last EDR Contact: 06/09/2004 Next Scheduled EDR Contact: N/A

Data Release Frequency: No Update Planned

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009 Date Data Arrived at EDR: 05/07/2009 Date Made Active in Reports: 09/21/2009

Number of Days to Update: 137

Source: EPA, Region 9 Telephone: 415-947-4219 Last EDR Contact: 04/22/2019

Next Scheduled EDR Contact: 08/05/2019 Data Release Frequency: No Update Planned

IHS OPEN DUMPS: Open Dumps on Indian Land

A listing of all open dumps located on Indian Land in the United States

Date of Government Version: 04/01/2014 Date Data Arrived at EDR: 08/06/2014 Date Made Active in Reports: 01/29/2015

Number of Days to Update: 176

Source: Department of Health & Human Serivces, Indian Health Service

Telephone: 301-443-1452 Last EDR Contact: 04/23/2019

Next Scheduled EDR Contact: 08/12/2019 Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 02/24/2019 Date Data Arrived at EDR: 02/26/2019 Date Made Active in Reports: 04/17/2019

Number of Days to Update: 50

Source: Drug Enforcement Administration

Telephone: 202-307-1000 Last EDR Contact: 05/24/2019

Next Scheduled EDR Contact: 09/09/2019 Data Release Frequency: No Update Planned

HIST CAL-SITES: Calsites Database

The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

Date of Government Version: 08/08/2005 Date Data Arrived at EDR: 08/03/2006 Date Made Active in Reports: 08/24/2006

Number of Days to Update: 21

Source: Department of Toxic Substance Control

Telephone: 916-323-3400 Last EDR Contact: 02/23/2009

Next Scheduled EDR Contact: 05/25/2009 Data Release Frequency: No Update Planned

SCH: School Property Evaluation Program

This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 04/29/2019 Date Data Arrived at EDR: 04/30/2019 Date Made Active in Reports: 06/27/2019

Number of Days to Update: 58

Source: Department of Toxic Substances Control

Telephone: 916-323-3400 Last EDR Contact: 04/30/2019

Next Scheduled EDR Contact: 08/12/2019 Data Release Frequency: Quarterly

CDL: Clandestine Drug Labs

A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

Date of Government Version: 12/31/2017 Date Data Arrived at EDR: 06/12/2018 Date Made Active in Reports: 08/06/2018

Number of Days to Update: 55

Source: Department of Toxic Substances Control

Telephone: 916-255-6504 Last EDR Contact: 07/08/2019

Next Scheduled EDR Contact: 10/21/2019 Data Release Frequency: Varies

TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995 Date Data Arrived at EDR: 08/30/1995 Date Made Active in Reports: 09/26/1995

Number of Days to Update: 27

Source: State Water Resources Control Board

Telephone: 916-227-4364 Last EDR Contact: 01/26/2009

Next Scheduled EDR Contact: 04/27/2009 Data Release Frequency: No Update Planned

CERS HAZ WASTE: CERS HAZ WASTE

List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Hazardous Chemical Management, Hazardous Waste Onsite Treatment, Household Hazardous Waste Collection, Hazardous Waste Generator, and RCRA LQ HW Generator programs.

Date of Government Version: 04/09/2019
Date Data Arrived at EDR: 04/11/2019
Date Made Active in Reports: 05/08/2019

Number of Days to Update: 27

Source: CalEPA Telephone: 916-323-2514 Last EDR Contact: 04/11/2019

Next Scheduled EDR Contact: 08/05/2019 Data Release Frequency: Quarterly

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 02/24/2019 Date Data Arrived at EDR: 02/26/2019 Date Made Active in Reports: 04/17/2019

Number of Days to Update: 50

Source: Drug Enforcement Administration

Telephone: 202-307-1000 Last EDR Contact: 05/24/2019

Next Scheduled EDR Contact: 09/09/2019 Data Release Frequency: Quarterly

PFAS: PFAS Contamination Site Location Listing

A listing of PFAS contaminated sites included in the GeoTracker database.

Date of Government Version: 02/21/2019 Date Data Arrived at EDR: 02/22/2019 Date Made Active in Reports: 04/15/2019

Number of Days to Update: 52

Source: State Water Resources Control Board

Telephone: 866-480-1028 Last EDR Contact: 06/28/2019

Next Scheduled EDR Contact: 09/23/2019 Data Release Frequency: Varies

Local Lists of Registered Storage Tanks

SWEEPS UST: SWEEPS UST Listing

Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

Date of Government Version: 06/01/1994 Date Data Arrived at EDR: 07/07/2005 Date Made Active in Reports: 08/11/2005

Number of Days to Update: 35

Source: State Water Resources Control Board

Telephone: N/A

Last EDR Contact: 06/03/2005 Next Scheduled EDR Contact: N/A

Data Release Frequency: No Update Planned

UST MENDOCINO: Mendocino County UST Database

A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 12/04/2018 Date Data Arrived at EDR: 12/06/2018 Date Made Active in Reports: 12/14/2018

Number of Days to Update: 8

Source: Department of Public Health Telephone: 707-463-4466

Telephone: 707-463-4466 Last EDR Contact: 05/24/2019

Next Scheduled EDR Contact: 09/09/2019 Data Release Frequency: Annually

HIST UST: Hazardous Substance Storage Container Database

The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990 Date Data Arrived at EDR: 01/25/1991 Date Made Active in Reports: 02/12/1991

Number of Days to Update: 18

Source: State Water Resources Control Board

Telephone: 916-341-5851 Last EDR Contact: 07/26/2001 Next Scheduled EDR Contact: N/A

Data Release Frequency: No Update Planned

SAN FRANCISCO AST: Aboveground Storage Tank Site Listing

Aboveground storage tank sites

Date of Government Version: 09/11/2018 Date Data Arrived at EDR: 09/12/2018 Date Made Active in Reports: 10/11/2018

Number of Days to Update: 29

Source: San Francisco County Department of Public Health

Telephone: 415-252-3896 Last EDR Contact: 05/02/2019

Next Scheduled EDR Contact: 08/19/2019 Data Release Frequency: Varies

CA FID UST: Facility Inventory Database

The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994 Date Data Arrived at EDR: 09/05/1995 Date Made Active in Reports: 09/29/1995

Number of Days to Update: 24

Source: California Environmental Protection Agency

Telephone: 916-341-5851 Last EDR Contact: 12/28/1998 Next Scheduled EDR Contact: N/A

Data Release Frequency: No Update Planned

CERS TANKS: California Environmental Reporting System (CERS) Tanks

List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Aboveground Petroleum Storage and Underground Storage Tank regulatory programs.

Date of Government Version: 04/09/2019 Date Data Arrived at EDR: 04/11/2019 Date Made Active in Reports: 05/08/2019

Number of Days to Update: 27

Source: California Environmental Protection Agency

Telephone: 916-323-2514 Last EDR Contact: 04/11/2019

Next Scheduled EDR Contact: 08/05/2019 Data Release Frequency: Quarterly

Local Land Records

LIENS: Environmental Liens Listing

A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 02/28/2019 Date Data Arrived at EDR: 03/01/2019 Date Made Active in Reports: 04/02/2019

Number of Days to Update: 32

Source: Department of Toxic Substances Control

Telephone: 916-323-3400 Last EDR Contact: 06/03/2019

Next Scheduled EDR Contact: 09/16/2019 Data Release Frequency: Varies

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 04/11/2019 Date Data Arrived at EDR: 04/18/2019 Date Made Active in Reports: 05/23/2019

Number of Days to Update: 35

Source: Environmental Protection Agency

Telephone: 202-564-6023 Last EDR Contact: 07/02/2019

Next Scheduled EDR Contact: 10/14/2019 Data Release Frequency: Semi-Annually

DEED: Deed Restriction Listing

Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Date of Government Version: 03/04/2019 Date Data Arrived at EDR: 03/05/2019 Date Made Active in Reports: 04/01/2019

Number of Days to Update: 27

Source: DTSC and SWRCB Telephone: 916-323-3400 Last EDR Contact: 06/04/2019

Next Scheduled EDR Contact: 09/16/2019 Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 03/25/2019 Date Data Arrived at EDR: 03/26/2019 Date Made Active in Reports: 05/14/2019

Number of Days to Update: 49

Source: U.S. Department of Transportation

Telephone: 202-366-4555 Last EDR Contact: 06/26/2019

Next Scheduled EDR Contact: 10/07/2019 Data Release Frequency: Quarterly

CHMIRS: California Hazardous Material Incident Report System

California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 10/24/2018 Date Data Arrived at EDR: 01/24/2019 Date Made Active in Reports: 03/05/2019

Number of Days to Update: 40

Source: Office of Emergency Services

Telephone: 916-845-8400 Last EDR Contact: 06/24/2019

Next Scheduled EDR Contact: 08/05/2019 Data Release Frequency: Semi-Annually

LDS: Land Disposal Sites Listing (GEOTRACKER)

Land Disposal sites (Landfills) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 12/10/2018 Date Data Arrived at EDR: 12/11/2018 Date Made Active in Reports: 01/15/2019

Number of Days to Update: 35

Source: State Water Qualilty Control Board

Telephone: 866-480-1028 Last EDR Contact: 06/11/2019

Next Scheduled EDR Contact: 09/23/2019 Data Release Frequency: Quarterly

MCS: Military Cleanup Sites Listing (GEOTRACKER)

Military sites (consisting of: Military UST sites; Military Privatized sites; and Military Cleanup sites [formerly known as DoD non UST]) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 12/10/2018 Date Data Arrived at EDR: 12/11/2018 Date Made Active in Reports: 01/15/2019

Number of Days to Update: 35

Source: State Water Resources Control Board

Telephone: 866-480-1028 Last EDR Contact: 06/11/2019

Next Scheduled EDR Contact: 09/23/2019 Data Release Frequency: Quarterly

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 06/06/2012 Date Data Arrived at EDR: 01/03/2013 Date Made Active in Reports: 02/22/2013

Number of Days to Update: 50

Source: FirstSearch Telephone: N/A

Last EDR Contact: 01/03/2013 Next Scheduled EDR Contact: N/A

Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 03/25/2019 Date Data Arrived at EDR: 03/27/2019 Date Made Active in Reports: 04/17/2019

Number of Days to Update: 21

Source: Environmental Protection Agency

Telephone: (415) 495-8895 Last EDR Contact: 06/26/2019

Next Scheduled EDR Contact: 10/07/2019 Data Release Frequency: Quarterly

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 03/07/2019 Date Data Arrived at EDR: 04/03/2019 Date Made Active in Reports: 05/23/2019

Number of Days to Update: 50

Source: U.S. Army Corps of Engineers

Telephone: 202-528-4285 Last EDR Contact: 05/21/2019

Next Scheduled EDR Contact: 09/02/2019 Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005 Date Data Arrived at EDR: 11/10/2006 Date Made Active in Reports: 01/11/2007

Number of Days to Update: 62

Source: USGS

Telephone: 888-275-8747 Last EDR Contact: 07/09/2019

Next Scheduled EDR Contact: 10/21/2019 Data Release Frequency: Semi-Annually

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005 Date Data Arrived at EDR: 02/06/2006 Date Made Active in Reports: 01/11/2007

Number of Days to Update: 339

Source: U.S. Geological Survey Telephone: 888-275-8747 Last EDR Contact: 07/10/2019

Next Scheduled EDR Contact: 10/21/2019

Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 01/01/2017 Date Data Arrived at EDR: 02/03/2017 Date Made Active in Reports: 04/07/2017

Number of Days to Update: 63

Source: Environmental Protection Agency

Telephone: 615-532-8599 Last EDR Contact: 05/13/2019

Next Scheduled EDR Contact: 08/26/2019 Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 03/25/2019 Date Data Arrived at EDR: 03/26/2019 Date Made Active in Reports: 05/07/2019

Number of Days to Update: 42

Source: Environmental Protection Agency

Telephone: 202-566-1917 Last EDR Contact: 06/26/2019

Next Scheduled EDR Contact: 10/07/2019 Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013 Date Data Arrived at EDR: 03/21/2014 Date Made Active in Reports: 06/17/2014

Number of Days to Update: 88

Source: Environmental Protection Agency

Telephone: 617-520-3000 Last EDR Contact: 05/06/2019

Next Scheduled EDR Contact: 08/19/2019 Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 09/30/2017 Date Data Arrived at EDR: 05/08/2018 Date Made Active in Reports: 07/20/2018

Number of Days to Update: 73

Source: Environmental Protection Agency

Telephone: 703-308-4044 Last EDR Contact: 05/10/2019

Next Scheduled EDR Contact: 08/19/2019

Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 06/21/2017
Date Made Active in Reports: 01/05/2018

Number of Days to Update: 198

Source: EPA

Telephone: 202-260-5521 Last EDR Contact: 06/18/2019

Next Scheduled EDR Contact: 09/30/2019 Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2016 Date Data Arrived at EDR: 01/10/2018 Date Made Active in Reports: 01/12/2018

Number of Days to Update: 2

Source: EPA

Telephone: 202-566-0250 Last EDR Contact: 05/24/2019

Next Scheduled EDR Contact: 09/02/2019 Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009 Date Data Arrived at EDR: 12/10/2010 Date Made Active in Reports: 02/25/2011

Number of Days to Update: 77

Source: EPA Telephone: 202-564-4203 Last EDR Contact: 04/24/2019

Next Scheduled EDR Contact: 08/05/2019 Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 04/11/2019 Date Data Arrived at EDR: 04/18/2019 Date Made Active in Reports: 05/23/2019

Number of Days to Update: 35

Source: EPA

Telephone: 703-416-0223 Last EDR Contact: 07/01/2019

Next Scheduled EDR Contact: 09/16/2019 Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 04/25/2019 Date Data Arrived at EDR: 05/02/2019 Date Made Active in Reports: 05/23/2019

Number of Days to Update: 21

Source: Environmental Protection Agency Telephone: 202-564-8600

Last EDR Contact: 04/22/2019

Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995 Date Data Arrived at EDR: 07/03/1995 Date Made Active in Reports: 08/07/1995

Number of Days to Update: 35

Source: EPA

Telephone: 202-564-4104 Last EDR Contact: 06/02/2008

Next Scheduled EDR Contact: 09/01/2008 Data Release Frequency: No Update Planned

PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

Date of Government Version: 04/11/2019 Date Data Arrived at EDR: 04/18/2019 Date Made Active in Reports: 05/23/2019

Number of Days to Update: 35

Source: EPA

Telephone: 202-564-6023 Last EDR Contact: 07/01/2019

Next Scheduled EDR Contact: 08/19/2019 Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 03/20/2019 Date Data Arrived at EDR: 04/10/2019 Date Made Active in Reports: 05/14/2019

Number of Days to Update: 34

Source: EPA

Telephone: 202-566-0500 Last EDR Contact: 07/12/2019

Next Scheduled EDR Contact: 10/21/2019 Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016 Date Data Arrived at EDR: 11/23/2016 Date Made Active in Reports: 02/10/2017

Number of Days to Update: 79

Source: Environmental Protection Agency

Telephone: 202-564-2501 Last EDR Contact: 07/03/2019

Next Scheduled EDR Contact: 10/21/2019 Data Release Frequency: Quarterly

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act) FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA,

TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

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Date of Government Version: 04/09/2009 Date Data Arrived at EDR: 04/16/2009 Date Made Active in Reports: 05/11/2009

Number of Days to Update: 25

Source: EPA/Office of Prevention, Pesticides and Toxic Substances

Telephone: 202-566-1667 Last EDR Contact: 08/18/2017

Next Scheduled EDR Contact: 12/04/2017 Data Release Frequency: No Update Planned

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act) A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009 Date Data Arrived at EDR: 04/16/2009 Date Made Active in Reports: 05/11/2009

Number of Days to Update: 25

Source: EPA

Telephone: 202-566-1667 Last EDR Contact: 08/18/2017

Next Scheduled EDR Contact: 12/04/2017 Data Release Frequency: No Update Planned

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 08/30/2016 Date Data Arrived at EDR: 09/08/2016 Date Made Active in Reports: 10/21/2016

Number of Days to Update: 43

Source: Nuclear Regulatory Commission Telephone: 301-415-7169

Last EDR Contact: 04/22/2019

Next Scheduled EDR Contact: 08/05/2019 Data Release Frequency: Quarterly

COAL ASH DOE: Steam-Electric Plant Operation Data
A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005 Date Data Arrived at EDR: 08/07/2009 Date Made Active in Reports: 10/22/2009

Number of Days to Update: 76

Source: Department of Energy Telephone: 202-586-8719 Last EDR Contact: 06/07/2019

Next Scheduled EDR Contact: 09/16/2019 Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List

A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 07/01/2014 Date Data Arrived at EDR: 09/10/2014 Date Made Active in Reports: 10/20/2014

Number of Days to Update: 40

Source: Environmental Protection Agency

Telephone: N/A

Last EDR Contact: 06/07/2019

Next Scheduled EDR Contact: 09/16/2019 Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database

The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 05/24/2017 Date Data Arrived at EDR: 11/30/2017 Date Made Active in Reports: 12/15/2017

Number of Days to Update: 15

Source: Environmental Protection Agency

Telephone: 202-566-0517 Last EDR Contact: 04/26/2019

Next Scheduled EDR Contact: 08/05/2019

Data Release Frequency: Varies

RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 04/02/2019 Date Data Arrived at EDR: 04/02/2019 Date Made Active in Reports: 05/14/2019

Number of Days to Update: 42

Source: Environmental Protection Agency

Telephone: 202-343-9775 Last EDR Contact: 07/01/2019

Next Scheduled EDR Contact: 10/14/2019 Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006 Date Data Arrived at EDR: 03/01/2007 Date Made Active in Reports: 04/10/2007

Number of Days to Update: 40

Source: Environmental Protection Agency

Telephone: 202-564-2501 Last EDR Contact: 12/17/2007

Next Scheduled EDR Contact: 03/17/2008

Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006 Date Data Arrived at EDR: 03/01/2007 Date Made Active in Reports: 04/10/2007

Number of Days to Update: 40

Source: Environmental Protection Agency

Telephone: 202-564-2501 Last EDR Contact: 12/17/2008

Next Scheduled EDR Contact: 03/17/2008 Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 12/03/2018 Date Data Arrived at EDR: 01/29/2019 Date Made Active in Reports: 03/21/2019

Number of Days to Update: 51

Source: Department of Transporation, Office of Pipeline Safety

Telephone: 202-366-4595 Last EDR Contact: 04/30/2019

Next Scheduled EDR Contact: 08/12/2019 Data Release Frequency: Quarterly

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 03/31/2019 Date Data Arrived at EDR: 04/23/2019 Date Made Active in Reports: 05/23/2019

Number of Days to Update: 30

Source: Department of Justice, Consent Decree Library

Telephone: Varies

Last EDR Contact: 07/08/2019

Next Scheduled EDR Contact: 10/21/2019

Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2015 Date Data Arrived at EDR: 02/22/2017 Date Made Active in Reports: 09/28/2017

Number of Days to Update: 218

Source: EPA/NTIS Telephone: 800-424-9346 Last EDR Contact: 06/26/2019

Next Scheduled EDR Contact: 10/07/2019 Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014 Date Data Arrived at EDR: 07/14/2015 Date Made Active in Reports: 01/10/2017

Number of Days to Update: 546

Source: USGS

Telephone: 202-208-3710 Last EDR Contact: 07/10/2019

Next Scheduled EDR Contact: 10/21/2019 Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 08/08/2017 Date Data Arrived at EDR: 09/11/2018 Date Made Active in Reports: 09/14/2018

Number of Days to Update: 3

Source: Department of Energy Telephone: 202-586-3559 Last EDR Contact: 05/02/2019

Next Scheduled EDR Contact: 08/19/2019 Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 06/23/2017 Date Data Arrived at EDR: 10/11/2017 Date Made Active in Reports: 11/03/2017

Number of Days to Update: 23

Source: Department of Energy Telephone: 505-845-0011 Last EDR Contact: 05/24/2019

Next Scheduled EDR Contact: 09/02/2019 Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 04/11/2019 Date Data Arrived at EDR: 04/18/2019 Date Made Active in Reports: 05/14/2019

Number of Days to Update: 26

Source: Environmental Protection Agency

Telephone: 703-603-8787 Last EDR Contact: 07/01/2019

Next Scheduled EDR Contact: 10/14/2019 Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001 Date Data Arrived at EDR: 10/27/2010 Date Made Active in Reports: 12/02/2010

Number of Days to Update: 36

Source: American Journal of Public Health

Telephone: 703-305-6451 Last EDR Contact: 12/02/2009 Next Scheduled EDR Contact: N/A

Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/12/2016 Date Data Arrived at EDR: 10/26/2016 Date Made Active in Reports: 02/03/2017

Number of Days to Update: 100

Source: EPA

Telephone: 202-564-2496 Last EDR Contact: 09/26/2017

Next Scheduled EDR Contact: 01/08/2018 Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data A listing of minor source facilities.

Date of Government Version: 10/12/2016 Date Data Arrived at EDR: 10/26/2016 Date Made Active in Reports: 02/03/2017

Number of Days to Update: 100

Source: EPA

Telephone: 202-564-2496 Last EDR Contact: 09/26/2017

Next Scheduled EDR Contact: 01/08/2018 Data Release Frequency: Annually

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 11/27/2018 Date Data Arrived at EDR: 02/27/2019 Date Made Active in Reports: 04/01/2019

Number of Days to Update: 33

Source: Department of Labor, Mine Safety and Health Administration

Telephone: 303-231-5959 Last EDR Contact: 05/29/2019

Next Scheduled EDR Contact: 09/09/2019 Data Release Frequency: Semi-Annually

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 12/05/2005 Date Data Arrived at EDR: 02/29/2008 Date Made Active in Reports: 04/18/2008

Number of Days to Update: 49

Source: USGS

Telephone: 703-648-7709 Last EDR Contact: 05/31/2019

Next Scheduled EDR Contact: 09/09/2019 Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011 Date Data Arrived at EDR: 06/08/2011 Date Made Active in Reports: 09/13/2011

Number of Days to Update: 97

Source: USGS

Telephone: 703-648-7709 Last EDR Contact: 05/31/2019

Next Scheduled EDR Contact: 09/09/2019 Data Release Frequency: Varies

ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 03/27/2019 Date Data Arrived at EDR: 03/28/2019 Date Made Active in Reports: 05/01/2019

Number of Days to Update: 34

Source: Department of Interior Telephone: 202-208-2609 Last EDR Contact: 06/19/2019

Next Scheduled EDR Contact: 09/23/2019 Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 02/15/2019 Date Data Arrived at EDR: 03/05/2019 Date Made Active in Reports: 03/15/2019

Number of Days to Update: 10

Source: EPA

Telephone: (415) 947-8000 Last EDR Contact: 06/05/2019

Next Scheduled EDR Contact: 09/16/2019 Data Release Frequency: Quarterly

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 12/31/2017 Date Data Arrived at EDR: 01/17/2019 Date Made Active in Reports: 04/01/2019

Number of Days to Update: 74

Source: Department of Defense Telephone: 703-704-1564 Last EDR Contact: 07/15/2019

Next Scheduled EDR Contact: 10/28/2019 Data Release Frequency: Varies

ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 04/07/2019 Date Data Arrived at EDR: 04/09/2019 Date Made Active in Reports: 05/23/2019

Number of Days to Update: 44

Source: Environmental Protection Agency

Telephone: 202-564-2280 Last EDR Contact: 07/09/2019

Next Scheduled EDR Contact: 10/21/2019 Data Release Frequency: Quarterly

DOCKET HWC: Hazardous Waste Compliance Docket Listing

A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 05/31/2018 Date Data Arrived at EDR: 07/26/2018 Date Made Active in Reports: 10/05/2018

Number of Days to Update: 71

Source: Environmental Protection Agency

Telephone: 202-564-0527 Last EDR Contact: 05/24/2019

Next Scheduled EDR Contact: 09/09/2019 Data Release Frequency: Varies

FUELS PROGRAM: EPA Fuels Program Registered Listing

This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels

Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 02/19/2019 Date Data Arrived at EDR: 02/21/2019 Date Made Active in Reports: 04/01/2019

Number of Days to Update: 39

Source: EPA

Telephone: 800-385-6164 Last EDR Contact: 05/21/2019

Next Scheduled EDR Contact: 09/02/2019 Data Release Frequency: Quarterly

CA BOND EXP. PLAN: Bond Expenditure Plan

Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of

Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989 Date Data Arrived at EDR: 07/27/1994 Date Made Active in Reports: 08/02/1994

Number of Days to Update: 6

Source: Department of Health Services

Telephone: 916-255-2118 Last EDR Contact: 05/31/1994 Next Scheduled EDR Contact: N/A

Data Release Frequency: No Update Planned

CORTESE: "Cortese" Hazardous Waste & Substances Sites List

The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste

Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

Date of Government Version: 03/25/2019 Date Data Arrived at EDR: 03/26/2019 Date Made Active in Reports: 05/01/2019

Number of Days to Update: 36

Source: CAL EPA/Office of Emergency Information

Telephone: 916-323-3400 Last EDR Contact: 06/25/2019

Next Scheduled EDR Contact: 10/07/2019 Data Release Frequency: Quarterly

CUPA SAN FRANCISCO CO: CUPA Facility Listing

Cupa facilities

Date of Government Version: 04/18/2019 Date Data Arrived at EDR: 04/19/2019 Date Made Active in Reports: 04/30/2019

Number of Days to Update: 11

Source: San Francisco County Department of Environmental Health

Telephone: 415-252-3896 Last EDR Contact: 04/18/2019

Next Scheduled EDR Contact: 08/19/2019 Data Release Frequency: Varies

CUPA LIVERMORE-PLEASANTON: CUPA Facility Listing

list of facilities associated with the various CUPA programs in Livermore-Pleasanton

Date of Government Version: 01/23/2019 Date Data Arrived at EDR: 02/26/2019 Date Made Active in Reports: 04/01/2019

Number of Days to Update: 34

Source: Livermore-Pleasanton Fire Department

Telephone: 925-454-2361 Last EDR Contact: 05/14/2019

Next Scheduled EDR Contact: 08/26/2019 Data Release Frequency: Varies

DRYCLEAN AVAQMD: Antelope Valley Air Quality Management District Drycleaner Listing A listing of dry cleaners in the Antelope Valley Air Quality Management District.

Date of Government Version: 02/27/2019 Date Data Arrived at EDR: 02/28/2019 Date Made Active in Reports: 04/01/2019

Number of Days to Update: 32

Source: Antelope Valley Air Quality Management District

Telephone: 661-723-8070 Last EDR Contact: 06/03/2019

Next Scheduled EDR Contact: 09/16/2019 Data Release Frequency: Varies

DRYCLEAN SOUTH COAST: South Coast Air Quality Management District Drycleaner Listing

A listing of dry cleaners in the South Coast Air Quality Management District

Date of Government Version: 03/19/2019 Date Data Arrived at EDR: 03/22/2019 Date Made Active in Reports: 04/09/2019

Number of Days to Update: 18

Source: South Coast Air Quality Management District

Telephone: 909-396-3211 Last EDR Contact: 05/23/2019

Next Scheduled EDR Contact: 09/09/2019

Data Release Frequency: Varies

DRYCLEANERS: Cleaner Facilities

A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 03/01/2019 Date Data Arrived at EDR: 04/25/2019 Date Made Active in Reports: 05/30/2019

Number of Days to Update: 35

Source: Department of Toxic Substance Control

Telephone: 916-327-4498 Last EDR Contact: 06/03/2019

Next Scheduled EDR Contact: 09/16/2019 Data Release Frequency: Annually

EMI: Emissions Inventory Data

Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2017 Date Data Arrived at EDR: 06/20/2018 Date Made Active in Reports: 08/06/2018

Number of Days to Update: 47

Source: California Air Resources Board

Telephone: 916-322-2990 Last EDR Contact: 06/24/2019

Next Scheduled EDR Contact: 09/30/2019 Data Release Frequency: Varies

ENF: Enforcement Action Listing

A listing of Water Board Enforcement Actions. Formal is everything except Oral/Verbal Communication, Notice of Violation, Expedited Payment Letter, and Staff Enforcement Letter.

Date of Government Version: 11/01/2018 Date Data Arrived at EDR: 11/02/2018 Date Made Active in Reports: 12/13/2018

Number of Days to Update: 41

Source: State Water Resoruces Control Board

Telephone: 916-445-9379 Last EDR Contact: 05/14/2019

Next Scheduled EDR Contact: 08/26/2019 Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing

Financial Assurance information

Date of Government Version: 04/22/2019 Date Data Arrived at EDR: 04/23/2019 Date Made Active in Reports: 06/26/2019

Number of Days to Update: 64

Source: Department of Toxic Substances Control

Telephone: 916-255-3628 Last EDR Contact: 04/22/2019

Next Scheduled EDR Contact: 08/05/2019

Data Release Frequency: Varies

Financial Assurance 2: Financial Assurance Information Listing

A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 02/15/2019 Date Data Arrived at EDR: 02/19/2019 Date Made Active in Reports: 03/05/2019

Number of Days to Update: 14

Source: California Integrated Waste Management Board

Telephone: 916-341-6066 Last EDR Contact: 05/09/2019

Next Scheduled EDR Contact: 08/26/2019 Data Release Frequency: Varies

HAZNET: Facility and Manifest Data

Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method. This database begins with calendar year 1993.

Date of Government Version: 12/31/2017 Date Data Arrived at EDR: 04/09/2019 Date Made Active in Reports: 05/29/2019

Number of Days to Update: 50

Source: California Environmental Protection Agency

Telephone: 916-255-1136 Last EDR Contact: 07/12/2019

Next Scheduled EDR Contact: 10/21/2019 Data Release Frequency: Annually

ICE: ICE

Contains data pertaining to the Permitted Facilities with Inspections / Enforcements sites tracked in Envirostor.

Date of Government Version: 02/19/2019 Date Data Arrived at EDR: 02/20/2019 Date Made Active in Reports: 03/05/2019

Number of Days to Update: 13

Source: Department of Toxic Subsances Control

Telephone: 877-786-9427 Last EDR Contact: 05/21/2019

Next Scheduled EDR Contact: 09/02/2019 Data Release Frequency: Quarterly

HIST CORTESE: Hazardous Waste & Substance Site List

The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

Date of Government Version: 04/01/2001 Date Data Arrived at EDR: 01/22/2009 Date Made Active in Reports: 04/08/2009

Number of Days to Update: 76

Source: Department of Toxic Substances Control

Telephone: 916-323-3400 Last EDR Contact: 01/22/2009 Next Scheduled EDR Contact: N/A

Data Release Frequency: No Update Planned

HWP: EnviroStor Permitted Facilities Listing

Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

Date of Government Version: 02/19/2019 Date Data Arrived at EDR: 02/20/2019 Date Made Active in Reports: 03/05/2019

Number of Days to Update: 13

Source: Department of Toxic Substances Control

Telephone: 916-323-3400 Last EDR Contact: 05/21/2019

Next Scheduled EDR Contact: 09/02/2019 Data Release Frequency: Quarterly

HWT: Registered Hazardous Waste Transporter Database

A listing of hazardous waste transporters. In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by DTSC. A hazardous waste transporter registration is valid for one year and is assigned a unique registration number.

Date of Government Version: 04/08/2019 Date Data Arrived at EDR: 04/09/2019 Date Made Active in Reports: 05/30/2019

Number of Days to Update: 51

Source: Department of Toxic Substances Control

Telephone: 916-440-7145 Last EDR Contact: 07/09/2019

Next Scheduled EDR Contact: 10/21/2019
Data Release Frequency: Quarterly

MINES: Mines Site Location Listing

A listing of mine site locations from the Office of Mine Reclamation.

Date of Government Version: 12/10/2018 Date Data Arrived at EDR: 12/12/2018 Date Made Active in Reports: 01/15/2019

Number of Days to Update: 34

Source: Department of Conservation Telephone: 916-322-1080

Last EDR Contact: 06/11/2019

Next Scheduled EDR Contact: 09/23/2019 Data Release Frequency: Quarterly

MWMP: Medical Waste Management Program Listing

The Medical Waste Management Program (MWMP) ensures the proper handling and disposal of medical waste by permitting and inspecting medical waste Offsite Treatment Facilities (PDF) and Transfer Stations (PDF) throughout the

state. MWMP also oversees all Medical Waste Transporters.

Date of Government Version: 02/20/2019 Date Data Arrived at EDR: 03/05/2019 Date Made Active in Reports: 04/02/2019

Number of Days to Update: 28

Source: Department of Public Health

Telephone: 916-558-1784 Last EDR Contact: 06/04/2019

Next Scheduled EDR Contact: 09/16/2019 Data Release Frequency: Varies

NPDES: NPDES Permits Listing

A listing of NPDES permits, including stormwater.

Date of Government Version: 02/11/2019 Date Data Arrived at EDR: 02/12/2019 Date Made Active in Reports: 03/07/2019

Number of Days to Update: 23

Source: State Water Resources Control Board

Telephone: 916-445-9379 Last EDR Contact: 05/14/2019

Next Scheduled EDR Contact: 08/26/2019 Data Release Frequency: Quarterly

PEST LIC: Pesticide Regulation Licenses Listing

A listing of licenses and certificates issued by the Department of Pesticide Regulation. The DPR issues licenses and/or certificates to: Persons and businesses that apply or sell pesticides; Pest control dealers and brokers; Persons who advise on agricultural pesticide applications.

Date of Government Version: 03/04/2019 Date Data Arrived at EDR: 03/05/2019 Date Made Active in Reports: 04/05/2019

Number of Days to Update: 31

Source: Department of Pesticide Regulation

Telephone: 916-445-4038 Last EDR Contact: 06/04/2019

Next Scheduled EDR Contact: 09/16/2019
Data Release Frequency: Quarterly

PROC: Certified Processors Database A listing of certified processors.

> Date of Government Version: 03/11/2019 Date Data Arrived at EDR: 03/13/2019 Date Made Active in Reports: 04/29/2019

Number of Days to Update: 47

Source: Department of Conservation

Telephone: 916-323-3836 Last EDR Contact: 06/12/2019

Next Scheduled EDR Contact: 09/23/2019 Data Release Frequency: Quarterly

NOTIFY 65: Proposition 65 Records

Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

Date of Government Version: 03/18/2019 Date Data Arrived at EDR: 03/19/2019 Date Made Active in Reports: 04/29/2019

Number of Days to Update: 41

Source: State Water Resources Control Board

Telephone: 916-445-3846 Last EDR Contact: 06/17/2019

Next Scheduled EDR Contact: 09/30/2019
Data Release Frequency: No Update Planned

UIC: UIC Listing

A listing of wells identified as underground injection wells, in the California Oil and Gas Wells database.

Date of Government Version: 04/27/2018 Date Data Arrived at EDR: 06/13/2018 Date Made Active in Reports: 07/17/2018

Number of Days to Update: 34

Source: Deaprtment of Conservation

Telephone: 916-445-2408 Last EDR Contact: 06/11/2019

Next Scheduled EDR Contact: 09/23/2019 Data Release Frequency: Varies

UIC GEO: Underground Injection Control Sites (GEOTRACKER)

Underground control injection sites

Date of Government Version: 12/10/2018 Date Data Arrived at EDR: 12/11/2018 Date Made Active in Reports: 01/15/2019

Number of Days to Update: 35

Source: State Water Resource Control Board

Telephone: 866-480-1028 Last EDR Contact: 06/11/2019

Next Scheduled EDR Contact: 09/23/2019 Data Release Frequency: Varies

WASTEWATER PITS: Oil Wastewater Pits Listing

Water officials discovered that oil producers have been dumping chemical-laden wastewater into hundreds of unlined pits that are operating without proper permits. Inspections completed by the Central Valley Regional Water Quality Control Board revealed the existence of previously unidentified waste sites. The water boards review found that more than one-third of the region's active disposal pits are operating without permission.

Date of Government Version: 05/08/2018 Date Data Arrived at EDR: 07/11/2018 Date Made Active in Reports: 09/13/2018

Number of Days to Update: 64

Source: RWQCB, Central Valley Region

Telephone: 559-445-5577 Last EDR Contact: 07/12/2019

Next Scheduled EDR Contact: 10/21/2019

Data Release Frequency: Varies

WDS: Waste Discharge System

Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007 Date Data Arrived at EDR: 06/20/2007 Date Made Active in Reports: 06/29/2007

Number of Days to Update: 9

Source: State Water Resources Control Board

Telephone: 916-341-5227 Last EDR Contact: 05/16/2019

Next Scheduled EDR Contact: 09/02/2019 Data Release Frequency: No Update Planned

WIP: Well Investigation Program Case List

Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 07/03/2009 Date Data Arrived at EDR: 07/21/2009 Date Made Active in Reports: 08/03/2009

Number of Days to Update: 13

Source: Los Angeles Water Quality Control Board

Telephone: 213-576-6726 Last EDR Contact: 06/19/2019

Next Scheduled EDR Contact: 10/07/2019 Data Release Frequency: No Update Planned

MILITARY PRIV SITES: Military Privatized Sites (GEOTRACKER)

Military privatized sites

Date of Government Version: 12/10/2018 Date Data Arrived at EDR: 12/11/2018 Date Made Active in Reports: 01/15/2019

Number of Days to Update: 35

Source: State Water Resources Control Board

Telephone: 866-480-1028 Last EDR Contact: 06/11/2019

Next Scheduled EDR Contact: 09/23/2019

Data Release Frequency: Varies

PROJECT: Project Sites (GEOTRACKER)

Projects sites

Date of Government Version: 12/10/2018 Date Data Arrived at EDR: 12/11/2018 Date Made Active in Reports: 01/15/2019

Number of Days to Update: 35

Source: State Water Resources Control Board

Telephone: 866-480-1028 Last EDR Contact: 06/11/2019

Next Scheduled EDR Contact: 09/23/2019 Data Release Frequency: Varies

WDR: Waste Discharge Requirements Listing

In general, the Waste Discharge Requirements (WDRs) Program (sometimes also referred to as the "Non Chapter 15 (Non 15) Program") regulates point discharges that are exempt pursuant to Subsection 20090 of Title 27 and not subject to the Federal Water Pollution Control Act. Exemptions from Title 27 may be granted for nine categories of discharges (e.g., sewage, wastewater, etc.) that meet, and continue to meet, the preconditions listed for each specific exemption. The scope of the WDRs Program also includes the discharge of wastes classified as inert, pursuant to section 20230 of Title 27.

Date of Government Version: 03/11/2019 Date Data Arrived at EDR: 03/13/2019 Date Made Active in Reports: 04/29/2019

Number of Days to Update: 47

Source: State Water Resources Control Board

Telephone: 916-341-5810 Last EDR Contact: 06/12/2019

Next Scheduled EDR Contact: 09/23/2019 Data Release Frequency: Quarterly

CIWQS: California Integrated Water Quality System

The California Integrated Water Quality System (CIWQS) is a computer system used by the State and Regional Water Quality Control Boards to track information about places of environmental interest, manage permits and other orders, track inspections, and manage violations and enforcement activities.

Date of Government Version: 03/05/2019 Date Data Arrived at EDR: 03/05/2019 Date Made Active in Reports: 04/02/2019

Number of Days to Update: 28

Source: State Water Resources Control Board

Telephone: 866-794-4977 Last EDR Contact: 06/04/2019

Next Scheduled EDR Contact: 09/16/2019

Data Release Frequency: Varies

CERS: CalEPA Regulated Site Portal Data

The CalEPA Regulated Site Portal database combines data about environmentally regulated sites and facilities in California into a single database. It combines data from a variety of state and federal databases, and provides an overview of regulated activities across the spectrum of environmental programs for any given location in California. These activities include hazardous materials and waste, state and federal cleanups, impacted ground and surface waters, and toxic materials

Date of Government Version: 04/09/2019 Date Data Arrived at EDR: 04/11/2019 Date Made Active in Reports: 05/08/2019

Number of Days to Update: 27

Source: California Environmental Protection Agency

Telephone: 916-323-2514 Last EDR Contact: 04/11/2019

Next Scheduled EDR Contact: 08/05/2019 Data Release Frequency: Varies

NON-CASE INFO: Non-Case Information Sites (GEOTRACKER)

Non-Case Information sites

Date of Government Version: 12/10/2018 Date Data Arrived at EDR: 12/11/2018 Date Made Active in Reports: 01/15/2019

Number of Days to Update: 35

Source: State Water Resources Control Board

Telephone: 866-480-1028 Last EDR Contact: 06/11/2019

Next Scheduled EDR Contact: 09/23/2019 Data Release Frequency: Varies

OTHER OIL GAS: Other Oil & Gas Projects Sites (GEOTRACKER)

Other Oil & Gas Projects sites

Date of Government Version: 12/10/2018 Date Data Arrived at EDR: 12/11/2018 Date Made Active in Reports: 01/15/2019

Number of Days to Update: 35

Source: State Water Resources Control Board

Telephone: 866-480-1028 Last EDR Contact: 06/11/2019

Next Scheduled EDR Contact: 09/23/2019 Data Release Frequency: Varies

PROD WATER PONDS: Produced Water Ponds Sites (GEOTRACKER)

Produced water ponds sites

Date of Government Version: 12/10/2018 Date Data Arrived at EDR: 12/11/2018 Date Made Active in Reports: 01/15/2019

Number of Days to Update: 35

Source: State Water Resources Control Board

Telephone: 866-480-1028 Last EDR Contact: 06/11/2019

Next Scheduled EDR Contact: 09/23/2019

Data Release Frequency: Varies

SAMPLING POINT: Sampling Point? Public Sites (GEOTRACKER)

Sampling point - public sites

Date of Government Version: 12/10/2018 Date Data Arrived at EDR: 12/11/2018 Date Made Active in Reports: 01/15/2019

Number of Days to Update: 35

Source: State Water Resources Control Board

Telephone: 866-480-1028 Last EDR Contact: 06/11/2019

Next Scheduled EDR Contact: 09/23/2019 Data Release Frequency: Varies

WELL STIM PROJ: Well Stimulation Project (GEOTRACKER)

Includes areas of groundwater monitoring plans, a depiction of the monitoring network, and the facilities, boundaries, and subsurface characteristics of the oilfield and the features (oil and gas wells, produced water ponds, UIC

wells, water supply wells, etc?) being monitored

Date of Government Version: 12/10/2018 Date Data Arrived at EDR: 12/11/2018 Date Made Active in Reports: 01/15/2019

Number of Days to Update: 35

Source: State Water Resources Control Board

Telephone: 866-480-1028 Last EDR Contact: 06/11/2019

Next Scheduled EDR Contact: 09/23/2019

Data Release Frequency: Varies

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A Date Data Arrived at EDR: N/A Date Made Active in Reports: N/A

Number of Days to Update: N/A

Source: EDR, Inc. Telephone: N/A Last EDR Contact: N/A

Next Scheduled EDR Contact: N/A

Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historical Auto Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A Date Data Arrived at EDR: N/A Date Made Active in Reports: N/A

Number of Days to Update: N/A

Source: EDR, Inc. Telephone: N/A Last EDR Contact: N/A

Next Scheduled EDR Contact: N/A Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historical Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A Source: EDR, Inc. Date Data Arrived at EDR: N/A Telephone: N/A Date Made Active in Reports: N/A Last EDR Contact: N/A

Next Scheduled EDR Contact: N/A Number of Days to Update: N/A Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Resources Recycling and Recovery in California.

Date of Government Version: N/A Date Data Arrived at EDR: 07/01/2013 Date Made Active in Reports: 01/13/2014

Number of Days to Update: 196

Source: Department of Resources Recycling and Recovery

Telephone: N/A

Last EDR Contact: 06/01/2012 Next Scheduled EDR Contact: N/A Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the State Water Resources Control Board in California.

Date of Government Version: N/A Date Data Arrived at EDR: 07/01/2013 Date Made Active in Reports: 12/30/2013

Number of Days to Update: 182

Source: State Water Resources Control Board

Telephone: N/A

Last EDR Contact: 06/01/2012 Next Scheduled EDR Contact: N/A Data Release Frequency: Varies

COUNTY RECORDS

ALAMEDA COUNTY:

CS ALAMEDA: Contaminated Sites

A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 01/09/2019 Date Data Arrived at EDR: 01/11/2019 Date Made Active in Reports: 03/05/2019

Number of Days to Update: 53

Source: Alameda County Environmental Health Services

Telephone: 510-567-6700 Last EDR Contact: 07/08/2019

Next Scheduled EDR Contact: 10/21/2019 Data Release Frequency: Semi-Annually

UST ALAMEDA: Underground Tanks

Underground storage tank sites located in Alameda county.

Date of Government Version: 04/10/2019 Date Data Arrived at EDR: 04/11/2019 Date Made Active in Reports: 06/20/2019

Number of Days to Update: 70

Source: Alameda County Environmental Health Services

Telephone: 510-567-6700 Last EDR Contact: 07/08/2019

Next Scheduled EDR Contact: 04/24/2047 Data Release Frequency: Semi-Annually

AMADOR COUNTY:

CUPA AMADOR: CUPA Facility List

Cupa Facility List

Date of Government Version: 01/07/2019 Date Data Arrived at EDR: 01/08/2019 Date Made Active in Reports: 03/07/2019

Number of Days to Update: 58

Source: Amador County Environmental Health

Telephone: 209-223-6439 Last EDR Contact: 06/17/2019

Next Scheduled EDR Contact: 09/16/2019

Data Release Frequency: Varies

BUTTE COUNTY:

CUPA BUTTE: CUPA Facility Listing

Cupa facility list.

Date of Government Version: 04/21/2017 Date Data Arrived at EDR: 04/25/2017 Date Made Active in Reports: 08/09/2017

Number of Days to Update: 106

Source: Public Health Department Telephone: 530-538-7149 Last EDR Contact: 07/08/2019

Next Scheduled EDR Contact: 10/21/2019
Data Release Frequency: No Update Planned

CALVERAS COUNTY:

CUPA CALVERAS: CUPA Facility Listing

Cupa Facility Listing

Date of Government Version: 05/01/2019 Date Data Arrived at EDR: 05/02/2019 Date Made Active in Reports: 05/29/2019

Number of Days to Update: 27

Source: Calveras County Environmental Health

Telephone: 209-754-6399 Last EDR Contact: 06/24/2019

Next Scheduled EDR Contact: 10/07/2019 Data Release Frequency: Quarterly

COLUSA COUNTY:

CUPA COLUSA: CUPA Facility List

Cupa facility list.

Date of Government Version: 02/27/2019 Date Data Arrived at EDR: 02/28/2019 Date Made Active in Reports: 04/01/2019

Number of Days to Update: 32

Source: Health & Human Services Telephone: 530-458-0396 Last EDR Contact: 05/16/2019

Next Scheduled EDR Contact: 08/19/2019 Data Release Frequency: Semi-Annually

CONTRA COSTA COUNTY:

SL CONTRA COSTA: Site List

List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 02/14/2019 Date Data Arrived at EDR: 02/19/2019 Date Made Active in Reports: 03/08/2019

Number of Days to Update: 17

Source: Contra Costa Health Services Department

Telephone: 925-646-2286 Last EDR Contact: 04/29/2019

Next Scheduled EDR Contact: 08/12/2019 Data Release Frequency: Semi-Annually

DEL NORTE COUNTY:

CUPA DEL NORTE: CUPA Facility List

Cupa Facility list

Date of Government Version: 02/20/2019 Date Data Arrived at EDR: 05/01/2019 Date Made Active in Reports: 05/30/2019

Number of Days to Update: 29

Source: Del Norte County Environmental Health Division

Telephone: 707-465-0426 Last EDR Contact: 04/25/2019

Next Scheduled EDR Contact: 08/12/2019 Data Release Frequency: Varies

EL DORADO COUNTY:

CUPA EL DORADO: CUPA Facility List

CUPA facility list.

Date of Government Version: 02/27/2019 Date Data Arrived at EDR: 02/28/2019 Date Made Active in Reports: 04/01/2019

Number of Days to Update: 32

Source: El Dorado County Environmental Management Department

Telephone: 530-621-6623 Last EDR Contact: 04/29/2019

Next Scheduled EDR Contact: 08/12/2019

Data Release Frequency: Varies

FRESNO COUNTY:

CUPA FRESNO: CUPA Resources List

Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 04/10/2019 Date Data Arrived at EDR: 04/11/2019 Date Made Active in Reports: 04/30/2019

Number of Days to Update: 19

Source: Dept. of Community Health Telephone: 559-445-3271 Last EDR Contact: 06/26/2019

Next Scheduled EDR Contact: 10/14/2019 Data Release Frequency: Semi-Annually

GLENN COUNTY:

CUPA GLENN: CUPA Facility List

Cupa facility list

Date of Government Version: 01/22/2018 Date Data Arrived at EDR: 01/24/2018 Date Made Active in Reports: 03/14/2018

Number of Days to Update: 49

Source: Glenn County Air Pollution Control District

Telephone: 830-934-6500 Last EDR Contact: 04/22/2019

Next Scheduled EDR Contact: 08/05/2019

Data Release Frequency: Varies

HUMBOLDT COUNTY:

CUPA HUMBOLDT: CUPA Facility List

CUPA facility list.

Date of Government Version: 12/11/2018 Date Data Arrived at EDR: 12/13/2018 Date Made Active in Reports: 01/15/2019

Number of Days to Update: 33

Source: Humboldt County Environmental Health

Telephone: N/A

Last EDR Contact: 05/20/2019

Next Scheduled EDR Contact: 09/02/2019 Data Release Frequency: Semi-Annually

IMPERIAL COUNTY:

CUPA IMPERIAL: CUPA Facility List

Cupa facility list.

Date of Government Version: 04/24/2019 Date Data Arrived at EDR: 04/25/2019 Date Made Active in Reports: 06/27/2019

Number of Days to Update: 63

Source: San Diego Border Field Office

Telephone: 760-339-2777 Last EDR Contact: 04/22/2019

Next Scheduled EDR Contact: 08/05/2019 Data Release Frequency: Varies

INYO COUNTY:

CUPA INYO: CUPA Facility List

Cupa facility list.

Date of Government Version: 04/02/2018 Date Data Arrived at EDR: 04/03/2018 Date Made Active in Reports: 06/14/2018

Number of Days to Update: 72

Source: Inyo County Environmental Health Services

Telephone: 760-878-0238 Last EDR Contact: 05/16/2019

Next Scheduled EDR Contact: 09/02/2019

Data Release Frequency: Varies

KERN COUNTY:

UST KERN: Underground Storage Tank Sites & Tank Listing

Kern County Sites and Tanks Listing.

Date of Government Version: 01/28/2019 Date Data Arrived at EDR: 02/07/2019 Date Made Active in Reports: 03/08/2019

Number of Days to Update: 29

Source: Kern County Environment Health Services Department

Telephone: 661-862-8700 Last EDR Contact: 05/02/2019

Next Scheduled EDR Contact: 08/19/2019 Data Release Frequency: Quarterly

KINGS COUNTY:

CUPA KINGS: CUPA Facility List

A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 05/16/2019 Date Data Arrived at EDR: 05/17/2019 Date Made Active in Reports: 05/30/2019

Number of Days to Update: 13

Source: Kings County Department of Public Health

Telephone: 559-584-1411 Last EDR Contact: 05/16/2019

Next Scheduled EDR Contact: 09/02/2019 Data Release Frequency: Varies

LAKE COUNTY:

CUPA LAKE: CUPA Facility List

Cupa facility list

Date of Government Version: 02/08/2019 Date Data Arrived at EDR: 02/12/2019 Date Made Active in Reports: 03/12/2019

Number of Days to Update: 28

Source: Lake County Environmental Health

Telephone: 707-263-1164 Last EDR Contact: 07/15/2019

Next Scheduled EDR Contact: 10/28/2019 Data Release Frequency: Varies

LASSEN COUNTY:

CUPA LASSEN: CUPA Facility List

Cupa facility list

Date of Government Version: 01/17/2019 Date Data Arrived at EDR: 01/18/2019 Date Made Active in Reports: 03/05/2019

Number of Days to Update: 46

Source: Lassen County Environmental Health

Telephone: 530-251-8528 Last EDR Contact: 04/22/2019

Next Scheduled EDR Contact: 08/05/2019 Data Release Frequency: Varies

LOS ANGELES COUNTY:

AOCONCERN: Key Areas of Concerns in Los Angeles County

San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office. Date of Government Version: 3/30/2009 Exide Site area is a cleanup plan of lead-impacted soil surrounding the former

Exide Facility as designated by the DTSC. Date of Government Version: 7/17/2017

Date of Government Version: 03/30/2009 Date Data Arrived at EDR: 03/31/2009 Date Made Active in Reports: 10/23/2009

Number of Days to Update: 206

Source: N/A Telephone: N/A

Last EDR Contact: 06/17/2019

Next Scheduled EDR Contact: 09/30/2019 Data Release Frequency: No Update Planned

HMS LOS ANGELES: HMS: Street Number List

Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 12/19/2018 Date Data Arrived at EDR: 01/10/2019 Date Made Active in Reports: 03/07/2019

Number of Days to Update: 56

Source: Department of Public Works

Telephone: 626-458-3517 Last EDR Contact: 07/08/2019

Next Scheduled EDR Contact: 10/21/2019 Data Release Frequency: Semi-Annually

LF LOS ANGELES: List of Solid Waste Facilities Solid Waste Facilities in Los Angeles County.

> Date of Government Version: 04/15/2019 Date Data Arrived at EDR: 04/16/2019 Date Made Active in Reports: 06/21/2019

Number of Days to Update: 66

Source: La County Department of Public Works

Telephone: 818-458-5185 Last EDR Contact: 04/16/2019

Next Scheduled EDR Contact: 07/29/2019

Data Release Frequency: Varies

LF LOS ANGELES CITY: City of Los Angeles Landfills

Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 01/01/2019 Date Data Arrived at EDR: 01/15/2019 Date Made Active in Reports: 03/07/2019

Number of Days to Update: 51

Source: Engineering & Construction Division

Telephone: 213-473-7869 Last EDR Contact: 07/12/2019

Next Scheduled EDR Contact: 10/28/2019 Data Release Frequency: Varies

LOS ANGELES AST: Active & Inactive AST Inventory

A listing of active & inactive above ground petroleum storage tank site locations, located in the City of Los Angeles.

Date of Government Version: 01/01/2019 Date Data Arrived at EDR: 04/05/2019 Date Made Active in Reports: 05/29/2019

Number of Days to Update: 54

Source: Los Angeles Fire Department

Telephone: 213-978-3800 Last EDR Contact: 06/25/2019

Next Scheduled EDR Contact: 10/07/2019

Data Release Frequency: Varies

LOS ANGELES CO LF METHANE: Methane Producing Landfills

This data was created on April 30, 2012 to represent known disposal sites in Los Angeles County that may produce and emanate methane gas. The shapefile contains disposal sites within Los Angeles County that once accepted degradable refuse material. Information used to create this data was extracted from a landfill survey performed by County Engineers (Major Waste System Map, 1973) as well as historical records from CalRecycle, Regional Water Quality Control Board, and Los Angeles County Department of Public Health

Date of Government Version: 04/30/2012 Date Data Arrived at EDR: 04/17/2019 Date Made Active in Reports: 05/29/2019

Number of Days to Update: 42

Source: Los Angeles County Department of Public Works

Telephone: 626-458-6973 Last EDR Contact: 04/17/2019

Next Scheduled EDR Contact: 07/29/2019
Data Release Frequency: No Update Planned

LOS ANGELES HM: Active & Inactive Hazardous Materials Inventory

A listing of active & inactive hazardous materials facility locations, located in the City of Los Angeles.

Date of Government Version: 01/01/2019 Date Data Arrived at EDR: 04/05/2019 Date Made Active in Reports: 05/29/2019

Number of Days to Update: 54

Source: Los Angeles Fire Department

Telephone: 213-978-3800 Last EDR Contact: 06/25/2019

Next Scheduled EDR Contact: 10/07/2019 Data Release Frequency: Varies

LOS ANGELES UST: Active & Inactive UST Inventory

A listing of active & inactive underground storage tank site locations and underground storage tank historical sites, located in the City of Los Angeles.

Date of Government Version: 01/01/2019 Date Data Arrived at EDR: 04/05/2019 Date Made Active in Reports: 05/29/2019

Number of Days to Update: 54

Source: Los Angeles Fire Department

Telephone: 213-978-3800 Last EDR Contact: 06/25/2019

Next Scheduled EDR Contact: 10/07/2019 Data Release Frequency: Varies

SITE MIT LOS ANGELES: Site Mitigation List

Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 04/08/2019 Date Data Arrived at EDR: 04/16/2019 Date Made Active in Reports: 06/21/2019

Number of Days to Update: 66

Source: Community Health Services Telephone: 323-890-7806 Last EDR Contact: 04/16/2019

Next Scheduled EDR Contact: 07/29/2019
Data Release Frequency: Annually

UST EL SEGUNDO: City of El Segundo Underground Storage Tank Underground storage tank sites located in El Segundo city.

Date of Government Version: 01/21/2017 Date Data Arrived at EDR: 04/19/2017 Date Made Active in Reports: 05/10/2017

Number of Days to Update: 21

Source: City of El Segundo Fire Department

Telephone: 310-524-2236 Last EDR Contact: 07/12/2019

Next Scheduled EDR Contact: 10/28/2019 Data Release Frequency: No Update Planned

UST LONG BEACH: City of Long Beach Underground Storage Tank Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 04/22/2019 Date Data Arrived at EDR: 04/23/2019 Date Made Active in Reports: 06/27/2019

Number of Days to Update: 65

Source: City of Long Beach Fire Department Telephone: 562-570-2563

Last EDR Contact: 04/22/2019

Next Scheduled EDR Contact: 08/05/2019

Data Release Frequency: Varies

UST TORRANCE: City of Torrance Underground Storage Tank
Underground storage tank sites located in the city of Torrance.

Date of Government Version: 04/04/2019 Date Data Arrived at EDR: 04/23/2019 Date Made Active in Reports: 06/27/2019

Number of Days to Update: 65

Source: City of Torrance Fire Department

Telephone: 310-618-2973 Last EDR Contact: 04/22/2019

Next Scheduled EDR Contact: 08/05/2019 Data Release Frequency: Semi-Annually

MADERA COUNTY:

CUPA MADERA: CUPA Facility List

A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 02/20/2019 Date Data Arrived at EDR: 02/22/2019 Date Made Active in Reports: 03/07/2019

Number of Days to Update: 13

Source: Madera County Environmental Health

Telephone: 559-675-7823 Last EDR Contact: 05/16/2019

Next Scheduled EDR Contact: 09/02/2019 Data Release Frequency: Varies

MARIN COUNTY:

UST MARIN: Underground Storage Tank Sites Currently permitted USTs in Marin County.

> Date of Government Version: 09/26/2018 Date Data Arrived at EDR: 10/04/2018 Date Made Active in Reports: 11/02/2018

Number of Days to Update: 29

Source: Public Works Department Waste Management

Telephone: 415-473-6647 Last EDR Contact: 06/26/2019

Next Scheduled EDR Contact: 10/14/2019 Data Release Frequency: Semi-Annually

MERCED COUNTY:

CUPA MERCED: CUPA Facility List CUPA facility list.

Date of Government Version: 03/11/2019 Date Data Arrived at EDR: 03/19/2019 Date Made Active in Reports: 05/08/2019

Number of Days to Update: 50

Source: Merced County Environmental Health

Telephone: 209-381-1094 Last EDR Contact: 05/16/2019

Next Scheduled EDR Contact: 09/02/2019 Data Release Frequency: Varies

MONO COUNTY:

CUPA MONO: CUPA Facility List CUPA Facility List

> Date of Government Version: 02/21/2019 Date Data Arrived at EDR: 02/26/2019 Date Made Active in Reports: 04/01/2019

Number of Days to Update: 34

Source: Mono County Health Department

Telephone: 760-932-5580 Last EDR Contact: 05/23/2019

Next Scheduled EDR Contact: 09/09/2019 Data Release Frequency: Varies

MONTEREY COUNTY:

CUPA MONTEREY: CUPA Facility Listing

CUPA Program listing from the Environmental Health Division.

Date of Government Version: 02/05/2019 Date Data Arrived at EDR: 02/07/2019 Date Made Active in Reports: 03/05/2019

Number of Days to Update: 26

Source: Monterey County Health Department

Telephone: 831-796-1297 Last EDR Contact: 06/28/2019

Next Scheduled EDR Contact: 10/14/2019 Data Release Frequency: Varies

NAPA COUNTY:

LUST NAPA: Sites With Reported Contamination

A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 01/09/2017 Date Data Arrived at EDR: 01/11/2017 Date Made Active in Reports: 03/02/2017

Number of Days to Update: 50

Source: Napa County Department of Environmental Management

Telephone: 707-253-4269 Last EDR Contact: 05/24/2019

Next Scheduled EDR Contact: 09/09/2019 Data Release Frequency: No Update Planned

UST NAPA: Closed and Operating Underground Storage Tank Sites

Underground storage tank sites located in Napa county.

Date of Government Version: 02/21/2019 Date Data Arrived at EDR: 02/22/2019 Date Made Active in Reports: 03/08/2019

Number of Days to Update: 14

Source: Napa County Department of Environmental Management

Telephone: 707-253-4269 Last EDR Contact: 05/24/2019

Next Scheduled EDR Contact: 09/09/2019
Data Release Frequency: No Update Planned

NEVADA COUNTY:

CUPA NEVADA: CUPA Facility List

CUPA facility list.

Date of Government Version: 05/20/2019 Date Data Arrived at EDR: 05/21/2019 Date Made Active in Reports: 05/30/2019

Number of Days to Update: 9

Source: Community Development Agency

Telephone: 530-265-1467 Last EDR Contact: 05/13/2019

Next Scheduled EDR Contact: 08/12/2019 Data Release Frequency: Varies

ORANGE COUNTY:

IND_SITE ORANGE: List of Industrial Site Cleanups

Petroleum and non-petroleum spills.

Date of Government Version: 05/01/2019 Date Data Arrived at EDR: 05/09/2019 Date Made Active in Reports: 05/30/2019

Number of Days to Update: 21

Source: Health Care Agency Telephone: 714-834-3446 Last EDR Contact: 05/06/2019

Next Scheduled EDR Contact: 08/19/2019 Data Release Frequency: Annually

LUST ORANGE: List of Underground Storage Tank Cleanups Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 05/01/2019 Date Data Arrived at EDR: 05/09/2019 Date Made Active in Reports: 05/30/2019

Number of Days to Update: 21

Source: Health Care Agency Telephone: 714-834-3446 Last EDR Contact: 05/06/2019

Next Scheduled EDR Contact: 08/19/2019 Data Release Frequency: Quarterly

UST ORANGE: List of Underground Storage Tank Facilities Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 01/02/2019 Date Data Arrived at EDR: 02/05/2019 Date Made Active in Reports: 03/08/2019

Number of Days to Update: 31

Source: Health Care Agency Telephone: 714-834-3446 Last EDR Contact: 05/07/2019

Next Scheduled EDR Contact: 08/19/2019 Data Release Frequency: Quarterly

PLACER COUNTY:

MS PLACER: Master List of Facilities

List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 02/28/2019 Date Data Arrived at EDR: 03/01/2019 Date Made Active in Reports: 04/12/2019

Number of Days to Update: 42

Source: Placer County Health and Human Services

Telephone: 530-745-2363 Last EDR Contact: 06/03/2019

Next Scheduled EDR Contact: 06/17/2019 Data Release Frequency: Semi-Annually

PLUMAS COUNTY:

CUPA PLUMAS: CUPA Facility List

Plumas County CUPA Program facilities.

Date of Government Version: 03/31/2019 Date Data Arrived at EDR: 04/23/2019 Date Made Active in Reports: 06/26/2019

Number of Days to Update: 64

Source: Plumas County Environmental Health

Telephone: 530-283-6355 Last EDR Contact: 04/22/2019

Next Scheduled EDR Contact: 08/05/2019

Data Release Frequency: Varies

RIVERSIDE COUNTY:

LUST RIVERSIDE: Listing of Underground Tank Cleanup Sites

Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 04/11/2019 Date Data Arrived at EDR: 04/12/2019 Date Made Active in Reports: 04/30/2019

Number of Days to Update: 18

Source: Department of Environmental Health

Telephone: 951-358-5055 Last EDR Contact: 06/17/2019

Next Scheduled EDR Contact: 09/30/2019 Data Release Frequency: Quarterly

UST RIVERSIDE: Underground Storage Tank Tank List

Underground storage tank sites located in Riverside county.

Date of Government Version: 04/11/2019 Date Data Arrived at EDR: 04/12/2019 Date Made Active in Reports: 06/20/2019

Number of Days to Update: 69

Source: Department of Environmental Health

Telephone: 951-358-5055 Last EDR Contact: 06/17/2019

Next Scheduled EDR Contact: 09/30/2019 Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

CS SACRAMENTO: Toxic Site Clean-Up List

List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 02/05/2019 Date Data Arrived at EDR: 04/02/2019 Date Made Active in Reports: 06/18/2019

Number of Days to Update: 77

Source: Sacramento County Environmental Management

Telephone: 916-875-8406 Last EDR Contact: 06/28/2019

Next Scheduled EDR Contact: 10/14/2019 Data Release Frequency: Quarterly

ML SACRAMENTO: Master Hazardous Materials Facility List

Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 02/06/2019 Date Data Arrived at EDR: 04/02/2019 Date Made Active in Reports: 06/20/2019

Number of Days to Update: 79

Source: Sacramento County Environmental Management

Telephone: 916-875-8406 Last EDR Contact: 06/28/2019

Next Scheduled EDR Contact: 10/14/2019 Data Release Frequency: Quarterly

SAN BENITO COUNTY:

CUPA SAN BENITO: CUPA Facility List

Cupa facility list

Date of Government Version: 03/11/2019 Date Data Arrived at EDR: 03/13/2019 Date Made Active in Reports: 04/30/2019

Number of Days to Update: 48

Source: San Benito County Environmental Health

Telephone: N/A

Last EDR Contact: 05/02/2019

Next Scheduled EDR Contact: 08/19/2019

Data Release Frequency: Varies

SAN BERNARDINO COUNTY:

PERMITS SAN BERNARDINO: Hazardous Material Permits

This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 02/27/2019 Date Data Arrived at EDR: 02/28/2019 Date Made Active in Reports: 04/02/2019

Number of Days to Update: 33

Source: San Bernardino County Fire Department Hazardous Materials Division

Telephone: 909-387-3041 Last EDR Contact: 05/06/2019

Next Scheduled EDR Contact: 08/19/2019
Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

HMMD SAN DIEGO: Hazardous Materials Management Division Database

The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 03/04/2019 Date Data Arrived at EDR: 03/05/2019 Date Made Active in Reports: 04/02/2019

Number of Days to Update: 28

Source: Hazardous Materials Management Division

Telephone: 619-338-2268 Last EDR Contact: 06/04/2019

Next Scheduled EDR Contact: 09/16/2019 Data Release Frequency: Quarterly

LF SAN DIEGO: Solid Waste Facilities

San Diego County Solid Waste Facilities.

Date of Government Version: 04/18/2018 Date Data Arrived at EDR: 04/24/2018 Date Made Active in Reports: 06/19/2018

Number of Days to Update: 56

Source: Department of Health Services

Telephone: 619-338-2209 Last EDR Contact: 04/22/2019

Next Scheduled EDR Contact: 08/05/2019 Data Release Frequency: Varies

SAN DIEGO CO LOP: Local Oversight Program Listing

A listing of all LOP release sites that are or were under the County of San Diego's jurisdiction. Included are closed or transferred cases, open cases, and cases that did not have a case type indicated. The cases without a case type are mostly complaints; however, some of them could be LOP cases.

Date of Government Version: 04/24/2019 Date Data Arrived at EDR: 04/25/2019 Date Made Active in Reports: 06/27/2019

Number of Days to Update: 63

Source: Department of Environmental Health

Telephone: 858-505-6874 Last EDR Contact: 04/22/2019

Next Scheduled EDR Contact: 08/05/2019 Data Release Frequency: Varies

SAN DIEGO CO SAM: Environmental Case Listing

The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

Date of Government Version: 03/23/2010 Date Data Arrived at EDR: 06/15/2010 Date Made Active in Reports: 07/09/2010

Number of Days to Update: 24

Source: San Diego County Department of Environmental Health

Telephone: 619-338-2371 Last EDR Contact: 06/03/2019

Next Scheduled EDR Contact: 09/16/2019 Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

LUST SAN FRANCISCO: Local Oversite Facilities

A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 09/19/2008 Date Data Arrived at EDR: 09/19/2008 Date Made Active in Reports: 09/29/2008

Number of Days to Update: 10

Source: Department Of Public Health San Francisco County

Telephone: 415-252-3920 Last EDR Contact: 05/02/2019

Next Scheduled EDR Contact: 08/19/2019
Data Release Frequency: No Update Planned

UST SAN FRANCISCO: Underground Storage Tank Information

Underground storage tank sites located in San Francisco county.

Date of Government Version: 11/05/2018 Date Data Arrived at EDR: 11/06/2018 Date Made Active in Reports: 12/14/2018

Number of Days to Update: 38

Source: Department of Public Health

Telephone: 415-252-3920 Last EDR Contact: 05/02/2019

Next Scheduled EDR Contact: 08/19/2019 Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

UST SAN JOAQUIN: San Joaquin Co. UST

A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 06/22/2018 Date Data Arrived at EDR: 06/26/2018 Date Made Active in Reports: 07/11/2018

Number of Days to Update: 15

Source: Environmental Health Department

Telephone: N/A

Last EDR Contact: 06/17/2019

Next Scheduled EDR Contact: 09/30/2019 Data Release Frequency: Semi-Annually

SAN LUIS OBISPO COUNTY:

CUPA SAN LUIS OBISPO: CUPA Facility List

Cupa Facility List.

Date of Government Version: 02/13/2019 Date Data Arrived at EDR: 02/15/2019 Date Made Active in Reports: 03/14/2019

Number of Days to Update: 27

Source: San Luis Obispo County Public Health Department

Telephone: 805-781-5596 Last EDR Contact: 05/16/2019

Next Scheduled EDR Contact: 09/02/2019 Data Release Frequency: Varies

SAN MATEO COUNTY:

BI SAN MATEO: Business Inventory

List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 03/04/2019 Date Data Arrived at EDR: 03/13/2019 Date Made Active in Reports: 04/29/2019

Number of Days to Update: 47

Source: San Mateo County Environmental Health Services Division

Telephone: 650-363-1921 Last EDR Contact: 06/12/2019

Next Scheduled EDR Contact: 09/23/2019 Data Release Frequency: Annually

LUST SAN MATEO: Fuel Leak List

A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 03/29/2019 Date Data Arrived at EDR: 03/29/2019 Date Made Active in Reports: 05/29/2019

Number of Days to Update: 61

Source: San Mateo County Environmental Health Services Division

Telephone: 650-363-1921 Last EDR Contact: 06/10/2019

Next Scheduled EDR Contact: 09/23/2019 Data Release Frequency: Semi-Annually

SANTA BARBARA COUNTY:

CUPA SANTA BARBARA: CUPA Facility Listing

CUPA Program Listing from the Environmental Health Services division.

Date of Government Version: 09/08/2011 Date Data Arrived at EDR: 09/09/2011 Date Made Active in Reports: 10/07/2011

Number of Days to Update: 28

Source: Santa Barbara County Public Health Department

Telephone: 805-686-8167 Last EDR Contact: 05/16/2019

Next Scheduled EDR Contact: 09/02/2019
Data Release Frequency: No Update Planned

SANTA CLARA COUNTY:

CUPA SANTA CLARA: Cupa Facility List

Cupa facility list

Date of Government Version: 02/13/2019 Date Data Arrived at EDR: 02/19/2019 Date Made Active in Reports: 03/06/2019

Number of Days to Update: 15

Source: Department of Environmental Health

Telephone: 408-918-1973 Last EDR Contact: 05/16/2019

Next Scheduled EDR Contact: 09/02/2019 Data Release Frequency: Varies

HIST LUST SANTA CLARA: HIST LUST - Fuel Leak Site Activity Report

A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county.

Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005 Date Data Arrived at EDR: 03/30/2005 Date Made Active in Reports: 04/21/2005

Number of Days to Update: 22

Source: Santa Clara Valley Water District

Telephone: 408-265-2600 Last EDR Contact: 03/23/2009

Next Scheduled EDR Contact: 06/22/2009 Data Release Frequency: No Update Planned

LUST SANTA CLARA: LOP Listing

A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 03/03/2014 Date Data Arrived at EDR: 03/05/2014 Date Made Active in Reports: 03/18/2014

Number of Days to Update: 13

Source: Department of Environmental Health

Telephone: 408-918-3417 Last EDR Contact: 05/24/2019

Next Scheduled EDR Contact: 09/09/2019 Data Release Frequency: No Update Planned

SAN JOSE HAZMAT: Hazardous Material Facilities

Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 01/30/2019 Date Data Arrived at EDR: 02/01/2019 Date Made Active in Reports: 03/07/2019

Number of Days to Update: 34

Source: City of San Jose Fire Department

Telephone: 408-535-7694 Last EDR Contact: 05/16/2019

Next Scheduled EDR Contact: 08/19/2019 Data Release Frequency: Annually

SANTA CRUZ COUNTY:

CUPA SANTA CRUZ: CUPA Facility List

CUPA facility listing.

Date of Government Version: 01/21/2017 Date Data Arrived at EDR: 02/22/2017 Date Made Active in Reports: 05/23/2017

Number of Days to Update: 90

Source: Santa Cruz County Environmental Health

Telephone: 831-464-2761 Last EDR Contact: 05/16/2019

Next Scheduled EDR Contact: 09/02/2019 Data Release Frequency: Varies

SHASTA COUNTY:

CUPA SHASTA: CUPA Facility List

Cupa Facility List.

Date of Government Version: 06/15/2017 Date Data Arrived at EDR: 06/19/2017 Date Made Active in Reports: 08/09/2017

Number of Days to Update: 51

Source: Shasta County Department of Resource Management

Telephone: 530-225-5789 Last EDR Contact: 05/16/2019

Next Scheduled EDR Contact: 09/02/2019 Data Release Frequency: Varies

SOLANO COUNTY:

LUST SOLANO: Leaking Underground Storage Tanks

A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 03/05/2019 Date Data Arrived at EDR: 03/07/2019 Date Made Active in Reports: 04/29/2019

Number of Days to Update: 53

Source: Solano County Department of Environmental Management

Telephone: 707-784-6770 Last EDR Contact: 06/03/2019

Next Scheduled EDR Contact: 09/16/2019 Data Release Frequency: Quarterly

UST SOLANO: Underground Storage Tanks

Underground storage tank sites located in Solano county.

Date of Government Version: 03/05/2019 Date Data Arrived at EDR: 03/07/2019 Date Made Active in Reports: 04/03/2019

Number of Days to Update: 27

Source: Solano County Department of Environmental Management

Telephone: 707-784-6770 Last EDR Contact: 06/03/2019

Next Scheduled EDR Contact: 09/16/2019 Data Release Frequency: Quarterly

SONOMA COUNTY:

CUPA SONOMA: Cupa Facility List

Cupa Facility list

Date of Government Version: 03/18/2019 Date Data Arrived at EDR: 03/26/2019 Date Made Active in Reports: 05/01/2019

Number of Days to Update: 36

Source: County of Sonoma Fire & Emergency Services Department

Telephone: 707-565-1174 Last EDR Contact: 06/19/2019

Next Scheduled EDR Contact: 10/07/2019 Data Release Frequency: Varies

LUST SONOMA: Leaking Underground Storage Tank Sites

A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 04/03/2019 Date Data Arrived at EDR: 04/11/2019 Date Made Active in Reports: 04/30/2019

Number of Days to Update: 19

Source: Department of Health Services

Telephone: 707-565-6565 Last EDR Contact: 06/19/2019

Next Scheduled EDR Contact: 10/07/2019 Data Release Frequency: Quarterly

STANISLAUS COUNTY:

CUPA STANISLAUS: CUPA Facility List

Cupa facility list

Date of Government Version: 12/11/2018 Date Data Arrived at EDR: 12/13/2018 Date Made Active in Reports: 01/15/2019

Number of Days to Update: 33

Source: Stanislaus County Department of Ennvironmental Protection

Telephone: 209-525-6751 Last EDR Contact: 07/15/2019

Next Scheduled EDR Contact: 10/28/2019 Data Release Frequency: Varies

SUTTER COUNTY:

UST SUTTER: Underground Storage Tanks

Underground storage tank sites located in Sutter county.

Date of Government Version: 02/28/2019 Date Data Arrived at EDR: 03/01/2019 Date Made Active in Reports: 04/03/2019

Number of Days to Update: 33

Source: Sutter County Environmental Health Services

Telephone: 530-822-7500 Last EDR Contact: 06/03/2019

Next Scheduled EDR Contact: 09/16/2019 Data Release Frequency: Semi-Annually

TEHAMA COUNTY:

CUPA TEHAMA: CUPA Facility List

Cupa facilities

Date of Government Version: 12/13/2018 Date Data Arrived at EDR: 12/18/2018 Date Made Active in Reports: 01/15/2019

Number of Days to Update: 28

Source: Tehama County Department of Environmental Health

Telephone: 530-527-8020 Last EDR Contact: 05/16/2019

Next Scheduled EDR Contact: 08/19/2019 Data Release Frequency: Varies

TRINITY COUNTY:

CUPA TRINITY: CUPA Facility List

Cupa facility list

Date of Government Version: 04/24/2019 Date Data Arrived at EDR: 04/25/2019 Date Made Active in Reports: 06/28/2019

Number of Days to Update: 64

Source: Department of Toxic Substances Control

Telephone: 760-352-0381 Last EDR Contact: 04/22/2019

Next Scheduled EDR Contact: 08/05/2019

Data Release Frequency: Varies

TULARE COUNTY:

CUPA TULARE: CUPA Facility List Cupa program facilities

Date of Government Version: 12/26/2018 Date Data Arrived at EDR: 12/27/2018 Date Made Active in Reports: 01/15/2019

Number of Days to Update: 19

Source: Tulare County Environmental Health Services Division

Telephone: 559-624-7400

Last EDR Contact: 05/06/2019

Next Scheduled EDR Contact: 08/19/2019

Data Release Frequency: Varies

TUOLUMNE COUNTY:

CUPA TUOLUMNE: CUPA Facility List

Cupa facility list

Date of Government Version: 04/23/2018 Date Data Arrived at EDR: 04/25/2018 Date Made Active in Reports: 06/25/2018

Number of Days to Update: 61

Source: Divison of Environmental Health

Telephone: 209-533-5633 Last EDR Contact: 05/02/2019

Next Scheduled EDR Contact: 08/05/2019

Data Release Frequency: Varies

VENTURA COUNTY:

BWT VENTURA: Business Plan, Hazardous Waste Producers, and Operating Underground Tanks

The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste

Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 03/26/2019 Date Data Arrived at EDR: 04/25/2019 Date Made Active in Reports: 06/27/2019

Number of Days to Update: 63

Source: Ventura County Environmental Health Division

Telephone: 805-654-2813 Last EDR Contact: 04/23/2019

Next Scheduled EDR Contact: 08/05/2019 Data Release Frequency: Quarterly

LF VENTURA: Inventory of Illegal Abandoned and Inactive Sites

Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 12/01/2011
Date Data Arrived at EDR: 12/01/2011
Date Made Active in Reports: 01/19/2012

Number of Days to Update: 49

Source: Environmental Health Division

Telephone: 805-654-2813 Last EDR Contact: 06/26/2019

Next Scheduled EDR Contact: 10/14/2019
Data Release Frequency: No Update Planned

LUST VENTURA: Listing of Underground Tank Cleanup Sites

Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/29/2008 Date Data Arrived at EDR: 06/24/2008 Date Made Active in Reports: 07/31/2008

Number of Days to Update: 37

Source: Environmental Health Division

Telephone: 805-654-2813 Last EDR Contact: 05/09/2019

Next Scheduled EDR Contact: 08/26/2019
Data Release Frequency: No Update Planned

MED WASTE VENTURA: Medical Waste Program List

To protect public health and safety and the environment from potential exposure to disease causing agents, the Environmental Health Division Medical Waste Program regulates the generation, handling, storage, treatment and disposal of medical waste throughout the County.

Date of Government Version: 03/26/2019 Date Data Arrived at EDR: 04/25/2019 Date Made Active in Reports: 05/30/2019

Number of Days to Update: 35

Source: Ventura County Resource Management Agency

Telephone: 805-654-2813 Last EDR Contact: 04/23/2019

Next Scheduled EDR Contact: 08/05/2019 Data Release Frequency: Quarterly

UST VENTURA: Underground Tank Closed Sites List

Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 02/26/2019 Date Data Arrived at EDR: 03/13/2019 Date Made Active in Reports: 04/03/2019

Number of Days to Update: 21

Source: Environmental Health Division

Telephone: 805-654-2813 Last EDR Contact: 06/12/2019

Next Scheduled EDR Contact: 09/23/2019 Data Release Frequency: Quarterly

YOLO COUNTY:

UST YOLO: Underground Storage Tank Comprehensive Facility Report Underground storage tank sites located in Yolo county.

Date of Government Version: 03/29/2019 Date Data Arrived at EDR: 04/05/2019 Date Made Active in Reports: 06/20/2019

Number of Days to Update: 76

Source: Yolo County Department of Health

Telephone: 530-666-8646 Last EDR Contact: 06/26/2019

Next Scheduled EDR Contact: 10/14/2019 Data Release Frequency: Annually

YUBA COUNTY:

CUPA YUBA: CUPA Facility List

CUPA facility listing for Yuba County.

Date of Government Version: 02/08/2019 Date Data Arrived at EDR: 02/12/2019 Date Made Active in Reports: 03/06/2019

Number of Days to Update: 22

Source: Yuba County Environmental Health Department

Telephone: 530-749-7523 Last EDR Contact: 04/25/2019

Next Scheduled EDR Contact: 08/12/2019

Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 02/11/2019 Date Data Arrived at EDR: 02/12/2019 Date Made Active in Reports: 03/04/2019

Number of Days to Update: 20

Source: Department of Energy & Environmental Protection

Telephone: 860-424-3375 Last EDR Contact: 05/14/2019

Next Scheduled EDR Contact: 08/26/2019
Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2018 Date Data Arrived at EDR: 04/10/2019 Date Made Active in Reports: 05/16/2019

Number of Days to Update: 36

Source: Department of Environmental Protection

Telephone: N/A

Last EDR Contact: 07/09/2019

Next Scheduled EDR Contact: 10/21/2019 Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD

facility.

Date of Government Version: 01/01/2019 Date Data Arrived at EDR: 05/01/2019 Date Made Active in Reports: 06/21/2019

Number of Days to Update: 51

Source: Department of Environmental Conservation

Telephone: 518-402-8651 Last EDR Contact: 05/01/2019

Next Scheduled EDR Contact: 08/12/2019 Data Release Frequency: Quarterly

PA MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2017 Date Data Arrived at EDR: 10/23/2018 Date Made Active in Reports: 11/27/2018

Number of Days to Update: 35

Source: Department of Environmental Protection

Telephone: 717-783-8990 Last EDR Contact: 07/15/2019

Next Scheduled EDR Contact: 10/28/2019 Data Release Frequency: Annually

RI MANIFEST: Manifest information

Hazardous waste manifest information

Date of Government Version: 12/31/2017 Date Data Arrived at EDR: 02/23/2018 Date Made Active in Reports: 04/09/2018

Number of Days to Update: 45

Source: Department of Environmental Management

Telephone: 401-222-2797 Last EDR Contact: 05/17/2019

Next Scheduled EDR Contact: 09/02/2019 Data Release Frequency: Annually

WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2017 Date Data Arrived at EDR: 06/15/2018 Date Made Active in Reports: 07/09/2018

Number of Days to Update: 24

Source: Department of Natural Resources

Telephone: N/A

Last EDR Contact: 06/10/2019

Next Scheduled EDR Contact: 09/23/2019 Data Release Frequency: Annually

Oil/Gas Pipelines

Source: PennWell Corporation

Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Electric Power Transmission Line Data

Source: PennWell Corporation

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Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:

Source: American Hospital Association, Inc.

Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing

Source: Centers for Medicare & Medicaid Services

Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services,

a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes

Source: National Institutes of Health

Telephone: 301-594-6248

Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on elementary

and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Facilities Source: Department of Social Services

Telephone: 916-657-4041

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.

Source: FEMA

Telephone: 877-336-2627

Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory

Source: Department of Fish and Wildlife

Telephone: 916-445-0411

Current USGS 7.5 Minute Topographic Map Source: U.S. Geological Survey

STREET AND ADDRESS INFORMATION

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APPENDIX F NOISE ANALYSIS

Building Type		Distance
Construction Noise at 50 Feet (dBA Leq)		50
Construction Phase	Minimum Required Equipment in Use 1	
Ground Clearing/Demolition	84	
Excavation	79 75	
Finishing and Site Cleanup	75	
Residential Use to the West of the Project Site		
Average Construction Noise (dBA Leq)		75
Construction Phase	Minimum Required Equipment in Use 1	
Ground Clearing/Demolition	80	
Excavation (Site Preparation)	75	
Foundation Construction	74	
Building Construction	71	
Paving	71	
Residential Use to the North of the Project Site		
Average Construction Noise (dBA Leq)		60
Construction Phase	Minimum Required Equipment in Use 1	
Ground Clearing/Demolition	82	
Excavation (Site Preparation)	77	
Foundation Construction	76	
Building Construction	73 73	
Paving	13	
Residential Uses to the South of the Project Site		
Average Construction Noise (dBA Leq)		60
Construction Phase	Minimum Required Equipment in Use 1	
Ground Clearing/Demolition	82	
Excavation (Site Preparation) Foundation Construction	77 76	
Foundation Construction Building Construction	76 73	
Paving Construction	73	
aving		
Residential Use to the East of the Project Site		100
Average Construction Noise (dBA Leq)	Minimum Boundard Fundament to Use 1	100
Construction Phase	Minimum Required Equipment in Use 1	
Ground Clearing/Demolition Excavation (Site Preparation)	78 73	
Excavation (Site Preparation) Foundation Construction	72	
Building Construction	69	
Paving	69	
Source: Bolt, Beranek and Newman, "Noise from Con-	struction Equipment and Operations, Building	
Equipment, and Home Appliances," prepared for the U		
_quipinoni, unu nome appliances, prepaleu loi lile l	JOET A, DOGGINDER OT, 1971. Dased On dildiysis IUI	

Construction Generated Vibration

Residential Use to the West of the		Closest Distance (feet):	15
Project Site		• /	
	Approximate RMS a 66	Approximate RMS 73.000	
	00	73.000	
Equipment	inch/second	inch/second	
Vibratory roller	0.21	0.452	
Large bulldozer	0.089	0.191	
Small bulldozer	0.003	0.006	
Jackhammer	0.035	0.075	
Loaded trucks	0.076	0.164	
	Criteria	0.900	
Residential Use to the North of the		Closest Distance (feet):	25
Project Site			
	Approximate RMS a	Approximate RMS	
	Velocity at 25 ft,	Velocity Level,	
Equipment	inch/second	inch/second	
Vibratory roller	0.21	0.210	
Caisson Drill	0.089	0.089	
Large bulldozer	0.089	0.089	
Small bulldozer	0.003	0.003	
Loaded trucks	0.076	0.076	
	Criteria	0.900	
Residential Uses to the South of the Project Site		Closest Distance (feet):	25
Froject Site	Approximate RMS a	Approximate RMS	
	Velocity at 25 ft,	Velocity Level,	
Equipment	inch/second	inch/second	
Vibratory roller	0.21	0.210	
Caisson Drill	0.089	0.089	
Large bulldozer	0.089	0.089	
Small bulldozer	0.003	0.003	
Loaded trucks	0.003	0.003	
Loaded lideks	Criteria	0.900	
Residential Use to the East of the	Criteria	*****	25
Project Site		Closest Distance (feet):	25
1 10,001 010	Approximate RMS a	Approximate RMS	
	Velocity at 25 ft,	Velocity Level,	
Equipment	inch/second	inch/second	
Vibratory roller	0.21	0.210	
Caisson Drill	0.089	0.089	
Large bulldozer	0.089	0.089	
Small bulldozer	0.003	0.003	
Loaded trucks	0.076	0.076	
	Criteria	0.900	
 Determined based on use of jackhammers or pneumatic hamme 			
Notes: RMS velocity calculated from vibration level (VdB) using the	ne reference of one microinch/second.		
Source: Based on methodology from the United St	ates Department of Transportation	Federal Transit Administration. Transit Noise and	Vibration Impact
Assessment (2006).	•	,	,