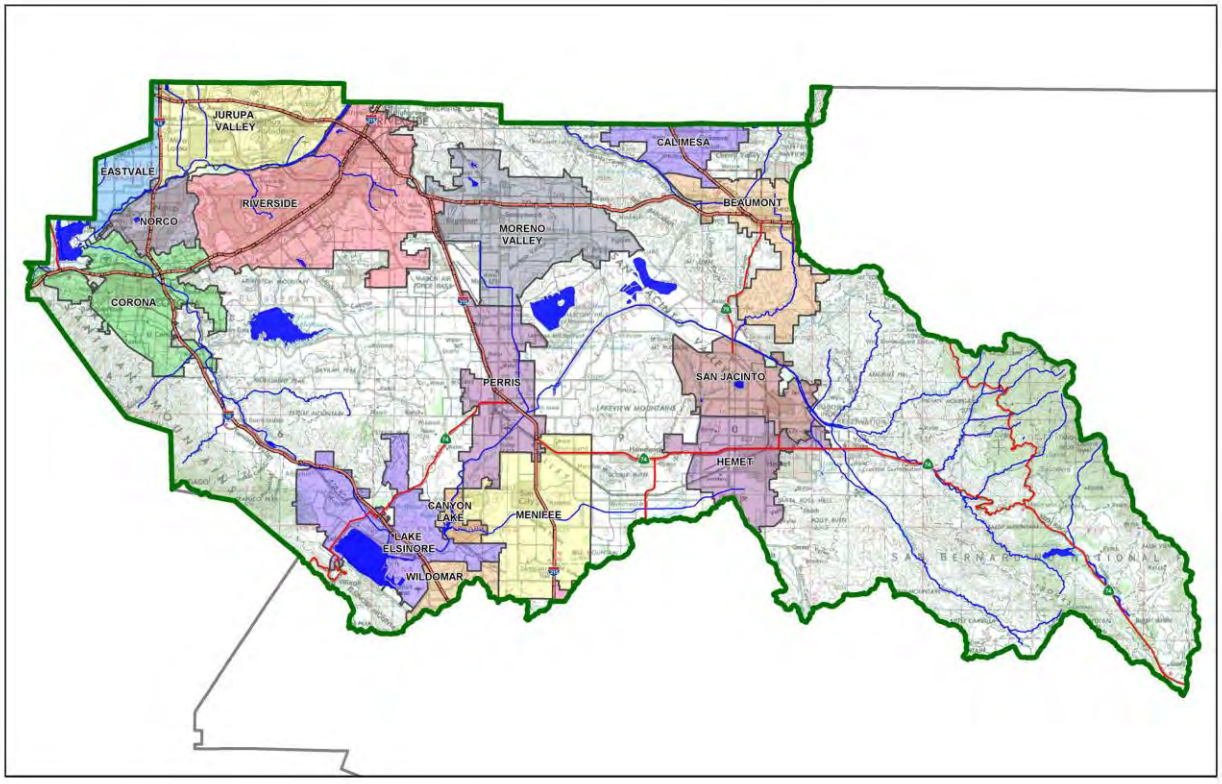
DRAFT

Project Specific Water Quality Management Plan

*A Template for Projects located within the **Santa Ana Watershed** Region of Riverside County*

Project Title: Duke Patterson & Nance

Development No: P21-00005



☒ **Preliminary**
☐ **Final**

Original Date Prepared: April 2021

Revision Date(s): March 2022, October 2021

Prepared for Compliance with
Regional Board Order No. **R8-2010-0033**
Template revised June 30, 2016

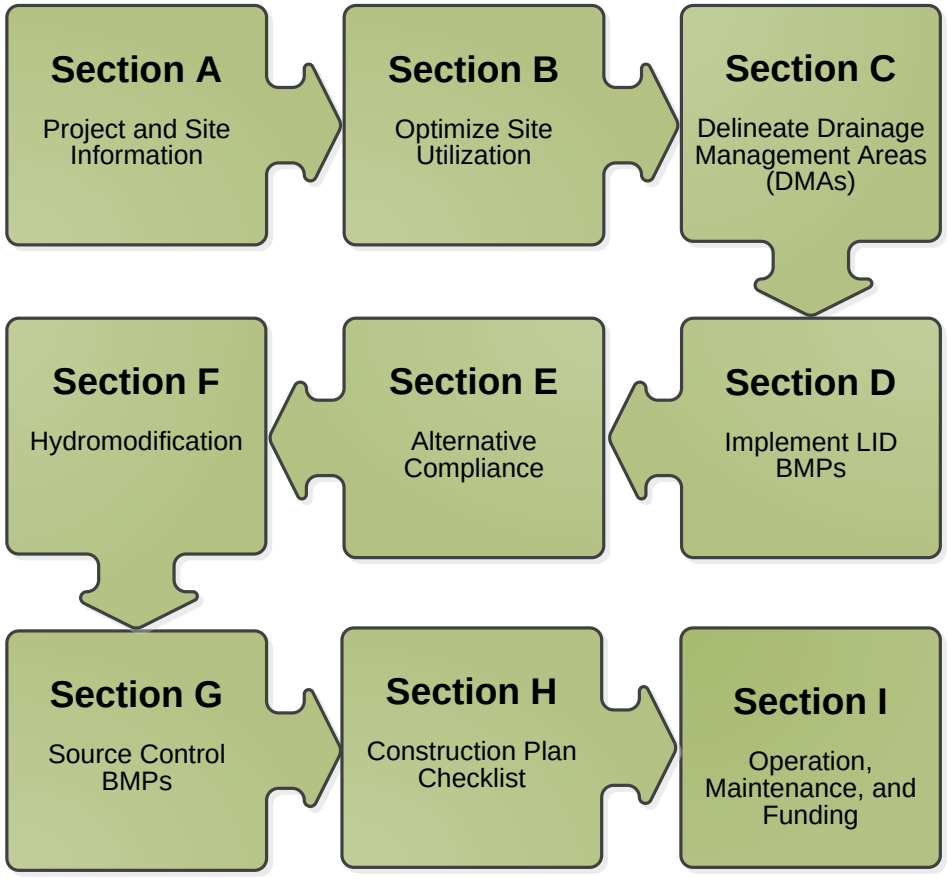
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A Brief Introduction

This Project-Specific WQMP Template for the **Santa Ana Region** has been prepared to help guide you in documenting compliance for your project. Because this document has been designed to specifically document compliance, you will need to utilize the WQMP Guidance Document as your "how-to" manual to help guide you through this process. Both the Template and Guidance Document go hand-in-hand and will help facilitate a well prepared Project-Specific WQMP. Below is a flowchart for the layout of this Template that will provide the steps required to document compliance.



OWNER'S CERTIFICATION

This Project-Specific Water Quality Management Plan (WQMP) has been prepared for Duke Realty Corporation by Albert A. Webb Associates for the Duke Patterson & Nance project (P21-00005).

This WQMP is intended to comply with the requirements of City of Perris for Water Quality Ordinance No. 1194 which includes the requirement for the preparation and implementation of a Project-Specific WQMP.

The undersigned, while owning the property/project described in the preceding paragraph, shall be responsible for the implementation and funding of this WQMP and will ensure that this WQMP is amended as appropriate to reflect up-to-date conditions on the site. In addition, the property owner accepts responsibility for interim operation and maintenance of Stormwater BMPs until such time as this responsibility is formally transferred to a subsequent owner. This WQMP will be reviewed with the facility operator, facility supervisors, employees, tenants, maintenance and service contractors, or any other party (or parties) having responsibility for implementing portions of this WQMP. At least one copy of this WQMP will be maintained at the project site or project office in perpetuity. The undersigned is authorized to certify and to approve implementation of this WQMP. The undersigned is aware that implementation of this WQMP is enforceable under City of Perris Water Quality Ordinance (Municipal Code Section 1194).

"I, the undersigned, certify under penalty of law that the provisions of this WQMP have been reviewed and accepted and that the WQMP will be transferred to future successors in interest."

Owner's Signature	Date
Owner's Printed Name	Owner's Title/Position

PREPARER'S CERTIFICATION

"The selection, sizing and design of stormwater treatment and other stormwater quality and quantity control measures in this plan meet the requirements of Regional Water Quality Control Board Order No. **R8-2010-0033** and any subsequent amendments thereto."

DRAFT

Preparer's Signature	Date
Scott Hildebrandt	Chief Strategy Officer
Preparer's Printed Name	Preparer's Title/Position

Preparer's Licensure:



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Section A: Project and Site Information

PROJECT INFORMATION		
Type of Project:	Commercial/Industrial	
Planning Area:	Mead Valley Area Plan	
Community Name:	Perris Valley Commerce Center (PVCC) Specific Plan	
Development Name:	Duke Patterson & Nance	
PROJECT LOCATION		
Latitude & Longitude (DMS): 33°51'24.61", -117°15'01.13"		
Project Watershed and Sub-Watershed: Santa Ana, San Jacinto Valley		
Gross Acres: 35.6 AC		
APN(s): 314-153-015 to 314-153-040, 314-153-042, 314-153-044, 314-153-046, 314-153-048, 314-160-003 to 314-160-012		
Map Book and Page No.: Thomas Bros. Map: Page 747, Grid D7		
PROJECT CHARACTERISTICS		
Proposed or Potential Land Use(s)		Commercial/Industrial
Proposed or Potential SIC Code(s)		**1541** (General Contractors-Industrial Building) **4225** (General Warehousing & Storage)
Area of Impervious Project Footprint (SF)		1,388,880
Total Area of proposed Impervious Surfaces within the Project Footprint (SF)/or Replacement		1,388,880
Does the project consist of offsite road improvements?		☒ Y ☐ N
Does the project propose to construct unpaved roads?		☐ Y ☒ N
Is the project part of a larger common plan of development (phased project)?		☐ Y ☒ N
EXISTING SITE CHARACTERISTICS		
Total area of existing Impervious Surfaces within the Project limits Footprint (SF)		0
Is the project located within any MSHCP Criteria Cell?		☐ Y ☒ N
If so, identify the Cell number:		N/A
Are there any natural hydrologic features on the project site?		☐ Y ☒ N
Is a Geotechnical Report attached?		☒ Y ☐ N
If no Geotech. Report, list the NRCS soils type(s) present on the site (A, B, C and/or D)		N/A
What is the Water Quality Design Storm Depth for the project?		0.62

A.1 Project Description

The Duke Patterson & Nance Project is located south of Harley Knox Boulevard, north of Nance Street, and situated between Patterson Avenue and Nevada Avenue. The existing land use is mostly vacant and barren with minimal vegetative scrub. There is an existing pervious area in the northwest corner that seems to be an area where container trailers are stored. The trailers will be moved and none of the existing buildings between the northerly property boundary and Harley Knox Boulevard will be demolished. The existing topography slopes approximately 1.0% in a southwest to northeast direction. Existing elevations range from approximately 1499 in the southwest corner to 1486 in the northeast corner (NAVD88). The existing drainage path is characterized by sheet flows that follow the existing topography.

The planned site condition will propose a commercial/ industrial warehouse (approximately 760,000 square-feet) on roughly 35.6 acres. The project proposes truck and auto parking as well as 10% of

landscaped area. All on-site flows generated from the project will be collected by proposed underground chambers located within the easternmost drive aisle. The underground chambers are designed to fully store the water quality volume which will then be pumped into a Contech Bioscape modular wetland for treatment. All high intensity flows will overflow into a high flow bypass within the underground chambers and gravity flow north to an existing Caltrans RCB via Lat-B6.1 in Nevada Avenue. The project will be impacted by offsite flows. The proposed project is within an HCOC exemption area. Proposed land use flowrates will not be required to match existing land use flowrates.

A.2 Maps and Site Plans

When completing your Project-Specific WQMP, include a map of the local vicinity and existing site. In addition, include all grading, drainage, landscape/plant palette and other pertinent construction plans in Appendix 2. At a **minimum**, your WQMP Site Plan should include the following:

- Drainage Management Areas
- Proposed Structural BMPs
- Drainage Path
- Drainage Infrastructure, Inlets, Overflows
- Source Control BMPs
- Buildings, Roof Lines, Downspouts
- Impervious Surfaces
- Standard Labeling
- BMP Locations (Lat/Long)

Use your discretion on whether or not you may need to create multiple sheets or can appropriately accommodate these features on one or two sheets. Keep in mind that the Co-Permittee plan reviewer must be able to easily analyze your project utilizing this template and its associated site plans and maps.

A.3 Identify Receiving Waters

Using Table A.1 below, list in order of upstream to downstream, the receiving waters that the project site is tributary to. Continue to fill each row with the Receiving Water's 303(d) listed impairments (if any), designated beneficial uses, and proximity, if any, to a RARE beneficial use. Include a map of the receiving waters in Appendix 1.

Table A.1 Identification of Receiving Waters

Receiving Waters	EPA Approved 303(d) List Impairments	Designated Beneficial Uses	Proximity to RARE Beneficial Use
Perris Valley Storm Drain Channel	None	None	Not a water body classified as RARE
San Jacinto River (Reach 3) (HU# 802.11)	None	Intermittent: MUN, AGR, GWR, REC1, REC2, WARM, WILD	Not a water body classified as RARE
San Jacinto River (Reach 2) (HU# 802.11)	None	Intermittent: MUN, AGR, GWR, REC1, REC2, WARM, WILD	Not a water body classified as RARE
Canyon Lake (HU# 802.11, 802.12)	Nutrients, Pathogens	MUN, AGR, GWR, REC1, REC2, WARM, WILD	Not a water body classified as RARE
San Jacinto River (Reach 1) (HU# 802.31, 802.32)	None	MUN, AGR, GWR, REC1, REC2, WARM, WILD	Not a water body classified as RARE
Lake Elsinore (HU# 802.31)	PCBs, (Organic Compound), Nutrients, Organic Enrichment (Low DO), Sediment Toxicity, Unknown Toxicity	REC1, REC2, WARM, WILD	Not a water body classified as RARE

A.4 Additional Permits/Approvals required for the Project:

Table A.2 Other Applicable Permits

Agency	Permit Required	
State Department of Fish and Game, 1602 Streambed Alteration Agreement	☐ Y	☒ N
State Water Resources Control Board, Clean Water Act (CWA) Section 401 Water Quality Cert.	☐ Y	☒ N
US Army Corps of Engineers, CWA Section 404 Permit	☐ Y	☒ N
US Fish and Wildlife, Endangered Species Act Section 7 Biological Opinion	☐ Y	☒ N
Statewide Construction General Permit Coverage	☒ Y	☐ N
Statewide Industrial General Permit Coverage **(Dependent on Tenant)**	☒ Y	☐ N
Western Riverside MSHCP Consistency Approval (e.g., JPR, DBESP)	☐ Y	☒ N
Other *(please list in the space below as required)* Grading	☒ Y	☐ N

If yes is answered to any of the questions above, the Co-Permittee may require proof of approval/coverage from those agencies as applicable including documentation of any associated requirements that may affect this Project-Specific WQMP.

Section B: Optimize Site Utilization (LID Principles)

Review of the information collected in Section 'A' will aid in identifying the principal constraints on site design and selection of LID BMPs as well as opportunities to reduce imperviousness and incorporate LID Principles into the site and landscape design. For example, **constraints** might include impermeable soils, high groundwater, groundwater pollution or contaminated soils, steep slopes, geotechnical instability, high-intensity land use, heavy pedestrian or vehicular traffic, utility locations or safety concerns. **Opportunities** might include existing natural areas, low areas, oddly configured or otherwise unbuildable parcels, easements and landscape amenities including open space and buffers (which can double as locations for bioretention BMPs), and differences in elevation (which can provide hydraulic head). Prepare a brief narrative for each of the site optimization strategies described below. This narrative will help you as you proceed with your LID design and explain your design decisions to others.

The 2010 Santa Ana MS4 Permit further requires that LID Retention BMPs (Infiltration Only or Harvest and Use) be used unless it can be shown that those BMPs are infeasible. Therefore, it is important that your narrative identify and justify if there are any constraints that would prevent the use of those categories of LID BMPs. Similarly, you should also note opportunities that exist which will be utilized during project design. Upon completion of identifying Constraints and Opportunities, include these on your WQMP Site plan in Appendix 1.

Consideration of "highest and best use" of the discharge should also be considered. For example, Lake Elsinore is evaporating faster than runoff from natural precipitation can recharge it. Requiring infiltration of 85% of runoff events for projects tributary to Lake Elsinore would only exacerbate current water quality problems associated with Pollutant concentration due to lake water evaporation. In cases where rainfall events have low potential to recharge Lake Elsinore (i.e. no hydraulic connection between groundwater to Lake Elsinore, or other factors), requiring infiltration of Urban Runoff from projects is counterproductive to the overall watershed goals. Project proponents, in these cases, would be allowed to discharge Urban Runoff, provided they used equally effective filtration-based BMPs.

Site Optimization

The following questions are based upon Section 3.2 of the WQMP Guidance Document. Review of the WQMP Guidance Document will help you determine how best to optimize your site and subsequently identify opportunities and/or constraints, and document compliance.

Did you identify and preserve existing drainage patterns? If so, how? If not, why?

The natural drainage patterns have generally been preserved. The proposed site conveys flow to the east into the proposed underground chambers, and then to the north into MDP Lateral B.

Did you identify and protect existing vegetation? If so, how? If not, why?

The existing project site is mostly vacant with little to no vegetative scrub. Dense vegetation areas with established trees do not exist.

Did you identify and preserve natural infiltration capacity? If so, how? If not, why?

Per the attached infiltration and geotechnical reports, the recommended design infiltration rate is 0.2 in/hr. This is below the recommended 1.6 in/hr for infiltration BMPs; therefore infiltration is not feasible for this site.

Did you identify and minimize impervious area? If so, how? If not, why?

Impervious areas were minimized given the proposed site usage and required parameters.

Did you identify and disperse runoff to adjacent pervious areas? If so, how? If not, why?

Runoff will be routed towards the proposed underground chambers. Self-retaining areas will retain a portion of water quality runoff.

Section C: Delineate Drainage Management Areas (DMAs)

Utilizing the procedure in Section 3.3 of the WQMP Guidance Document which discusses the methods of delineating and mapping your project site into individual DMAs, complete Table C.1 below to appropriately categorize the types of classification (e.g., Type A, Type B, etc.) per DMA for your project site. Upon completion of this table, this information will then be used to populate and tabulate the corresponding tables for their respective DMA classifications.

Table C.1 DMA Classifications

DMA Name or ID	Surface Type(s)[1][2]	Area (Sq. Ft.)	DMA Type
L-A	LANDSCAPE	108,920	D
R-A	ROOF	759,600	D
H-A	HARDSCAPE	629,280	D
BMP-A	LANDSCAPE	200	D
SR-A	LANDSCAPE	23,740	B
SELF-TREATING	LANDSCAPE	31,090	A

[1]Reference Table 2-1 in the WQMP Guidance Document to populate this column
[2]If multi-surface provide back-up

Table C.2 Type 'A', Self-Treating Areas

DMA Name or ID	Area (Sq. Ft.)	Stabilization Type	Irrigation Type (if any)
SELF-TREATING	31,090	LANDSCAPE	DRIP

Table C.3 Type 'B', Self-Retaining Areas

Self-Retaining Area				**Type 'C' DMAs that are draining to the Self-Retaining Area**		
DMA Name/ ID	Post-project surface type	Area (square feet) [A]	Storm Depth (inches) [B]	DMA Name / ID	[C] from Table C.4 = [C]	Required Retention Depth (inches) [D]
SR-A	LANDSCAPE	23,740	0.62	-	-	0.62

$$[D] = [B] + \frac{[B] \cdot [C]}{[A]}$$

Table C.4 Type 'C', Areas that Drain to Self-Retaining Areas

DMA					**Receiving Self-Retaining DMA**		
DMA Name/ ID	Area (square feet)	Post-project surface type	Impervious fraction	Product		Area (square feet)	Ratio
	[A]		[B]	[C] = [A] x [B]	DMA name /ID	[D]	[C]/[D]

Table C.5 Type 'D', Areas Draining to BMPs

DMA Name or ID	BMP Name or ID
L-A	BMP-A
R-A	
H-A	

Note: More than one drainage management area can drain to a single LID BMP, however, one drainage management area may not drain to more than one BMP.

Section D: Implement LID BMPs

D.1 Infiltration Applicability

Is there an approved downstream 'Highest and Best Use' for stormwater runoff (see discussion in Chapter 2.4.4 of the WQMP Guidance Document for further details)? ☐ Y ☒ N

If yes has been checked, Infiltration BMPs shall not be used for the site; proceed to section D.3

If no, continue working through this section to implement your LID BMPs. It is recommended that you contact your Co-Permittee to verify whether or not your project discharges to an approved downstream 'Highest and Best Use' feature.

Geotechnical Report

A Geotechnical Report or Phase I Environmental Site Assessment may be required by the Copermittee to confirm present and past site characteristics that may affect the use of Infiltration BMPs. In addition, the Co-Permittee, at their discretion, may not require a geotechnical report for small projects as described in Chapter 2 of the WQMP Guidance Document. If a geotechnical report has been prepared, include it in Appendix 3. In addition, if a Phase I Environmental Site Assessment has been prepared, include it in Appendix 4.

Is this project classified as a small project consistent with the requirements of Chapter 2 of the WQMP Guidance Document? ☐ Y ☒ N

Infiltration Feasibility

Table D.1 below is meant to provide a simple means of assessing which DMAs on your site support Infiltration BMPs and is discussed in the WQMP Guidance Document in Chapter 2.4.5. Check the appropriate box for each question and then list affected DMAs as applicable. If additional space is needed, add a row below the corresponding answer.

Table D.1 Infiltration Feasibility

Does the project site…	YES	NO
…have any DMAs with a seasonal high groundwater mark shallower than 10 feet?		X
If Yes, list affected DMAs:		
…have any DMAs located within 100 feet of a water supply well?		X
If Yes, list affected DMAs:		
…have any areas identified by the geotechnical report as posing a public safety risk where infiltration of stormwater could have a negative impact?		X
If Yes, list affected DMAs:		
…have measured in-situ infiltration rates of less than 1.6 inches / hour?	X	
If Yes, list affected DMAs: **DMA-A: 0.2 in/hr**		
…have significant cut and/or fill conditions that would preclude in-situ testing of infiltration rates at the final infiltration surface?		X
If Yes, list affected DMAs:		
…geotechnical report identify other site-specific factors that would preclude effective and safe infiltration?		X
Describe here:		

If you answered "Yes" to any of the questions above for any DMA, Infiltration BMPs should not be used for those DMAs and you should proceed to the assessment for Harvest and Use below.

D.2 Harvest and Use Assessment

Please check what applies*:*

☐ Reclaimed water will be used for the non-potable water demands for the project.

☐Downstream water rights may be impacted by Harvest and Use as approved by the Regional Board (verify with the Copermittee).

☐The Design Capture Volume will be addressed using Infiltration Only BMPs. In such a case, Harvest and Use BMPs are still encouraged, but it would not be required if the Design Capture Volume will be infiltrated or evapotranspired.

If any of the above boxes have been checked, Harvest and Use BMPs need not be assessed for the site. If none of the above criteria applies, follow the steps below to assess the feasibility of irrigation use, toilet use and other non-potable uses (e.g., industrial use).

Irrigation Use Feasibility

Complete the following steps to determine the feasibility of harvesting stormwater runoff for Irrigation Use BMPs on your site:

Step 1: Identify the total area of irrigated landscape on the site, and the type of landscaping used.

Total Area of Irrigated Landscape: 3.8 acres

Type of Landscaping (Conservation Design or Active Turf): Conservation

Step 2: Identify the planned total of all impervious areas on the proposed project from which runoff might be feasibly captured and stored for irrigation use. Depending on the configuration of buildings and other impervious areas on the site, you may consider the site as a whole, or parts of the site, to evaluate reasonable scenarios for capturing and storing runoff and directing the stored runoff to the potential use(s) identified in Step 1 above.

Total Area of Impervious Surfaces: 31.9 acres

Step 3: Cross reference the Design Storm depth for the project site (see Exhibit A of the WQMP Guidance Document) with the left column of Table 2-3 in Chapter 2 to determine the minimum area of Effective Irrigated Area per Tributary Impervious Area (EIATIA).

Enter your EIATIA factor: 1.05

Step 4: Multiply the unit value obtained from Step 3 by the total of impervious areas from Step 2 to develop the minimum irrigated area that would be required.

Minimum required irrigated area: 33.5 acres

Step 5: Determine if harvesting stormwater runoff for irrigation use is feasible for the project by comparing the total area of irrigated landscape (Step 1) to the minimum required irrigated area (Step 4).

Minimum required irrigated area (Step 4)	Available Irrigated Landscape (Step 1)
33.5 acres	*3.8 acres*

Toilet Use Feasibility

Complete the following steps to determine the feasibility of harvesting stormwater runoff for toilet flushing uses on your site:

Step 1: Identify the projected total number of daily toilet users during the wet season, and account for any periodic shut downs or other lapses in occupancy:

Projected Number of Daily Toilet Users: 300-400

Project Type: Warehousing

Step 2: Identify the planned total of all impervious areas on the proposed project from which runoff might be feasibly captured and stored for toilet use. Depending on the configuration of buildings and other impervious areas on the site, you may consider the site as a whole, or parts of the site, to evaluate reasonable scenarios for capturing and storing runoff and directing the stored runoff to the potential use(s) identified in Step 1 above.

Total Area of Impervious Surfaces: 31.9 acres

Step 3: Enter the Design Storm depth for the project site (see Exhibit A) into the left column of Table 2-2 in Chapter 2 to determine the minimum number or toilet users per tributary impervious acre (TUTIA).

Enter your TUTIA factor: 185

Step 4: Multiply the unit value obtained from Step 3 by the total of impervious areas from Step 2 to develop the minimum number of toilet users that would be required.

Minimum number of toilet users: 5,900

Step 5: Determine if harvesting stormwater runoff for toilet flushing use is feasible for the project by comparing the Number of Daily Toilet Users (Step 1) to the minimum required number of toilet users (Step 4).

Minimum required Toilet Users (Step 4)	**Projected number of toilet users (Step 1)**
5,900	*400*

Other Non-Potable Use Feasibility

Are there other non-potable uses for stormwater runoff on the site (e.g. industrial use)? See Chapter 2 of the Guidance for further information. If yes, describe below. If no, write N/A.

N/A

Step 1: Identify the projected average daily non-potable demand, in gallons per day, during the wet season and accounting for any periodic shut downs or other lapses in occupancy or operation.

Average Daily Demand: N/A

Step 2: Identify the planned total of all impervious areas on the proposed project from which runoff might be feasibly captured and stored for the identified non-potable use. Depending on the configuration of buildings and other impervious areas on the site, you may consider the site as a whole, or parts of the site, to evaluate reasonable scenarios for capturing and storing runoff and directing the stored runoff to the potential use(s) identified in Step 1 above.

Total Area of Impervious Surfaces: N/A

Step 3: Enter the Design Storm depth for the project site (see Exhibit A) into the left column of Table 2-4 in Chapter 2 to determine the minimum demand for non-potable uses per tributary impervious acre.

Enter the factor from Table 2-4: N/A

Step 4: Multiply the unit value obtained from Step 3 by the total of impervious areas from Step 2 to develop the minimum number of gallons per day of non-potable use that would be required.

Minimum required use: N/A

Step 5: Determine if harvesting stormwater runoff for other non-potable use is feasible for the project by comparing the projected average daily use (Step 1) to the minimum required non-potable use (Step 4).

Minimum required non-potable use (Step 4)	**Projected average daily use (Step 1)**
N/A	N/A

If Irrigation, Toilet and Other Use feasibility anticipated demands are less than the applicable minimum values, Harvest and Use BMPs are not required and you should proceed to utilize LID Bioretention and Biotreatment per Section 3.4.2 of the WQMP Guidance Document.

D.3 Bioretention and Biotreatment Assessment

Other LID Bioretention and Biotreatment BMPs as described in Chapter 2.4.7 of the WQMP Guidance Document are feasible on nearly all development sites with sufficient advance planning.

Select one of the following:

☒ LID Bioretention/Biotreatment BMPs will be used for some or all DMAs of the project as noted below in Section D.4 (note the requirements of Section 3.4.2 in the WQMP Guidance Document).

☐ A site-specific analysis demonstrating the technical infeasibility of all LID BMPs has been performed and is included in Appendix 5. If you plan to submit an analysis demonstrating the technical infeasibility of LID BMPs, request a pre-submittal meeting with the Copermittee to discuss this option. Proceed to Section E to document your alternative compliance measures.

D.4 Feasibility Assessment Summaries

From the Infiltration, Harvest and Use, Bioretention and Biotreatment Sections above, complete Table D.2 below to summarize which LID BMPs are technically feasible, and which are not, based upon the established hierarchy.

Table D.2 LID Prioritization Summary Matrix

DMA Name/ID	LID BMP Hierarchy				No LID (Alternative Compliance)
	1. Infiltration	2. Harvest and use	3. Bioretention	4. Biotreatment	
DMA-A	☐	☐	☐	☒	☐
	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐

For those DMAs where LID BMPs are not feasible, provide a brief narrative below summarizing why they are not feasible, include your technical infeasibility criteria in Appendix 5, and proceed to Section E below to document Alternative Compliance measures for those DMAs. Recall that each proposed DMA must pass through the LID BMP hierarchy before alternative compliance measures may be considered.

D.5 LID BMP Sizing

Each LID BMP must be designed to ensure that the Design Capture Volume will be addressed by the selected BMPs. First**,** calculate the Design Capture Volume for each LID BMP using the V_{BMP} worksheet in Appendix F of the LID BMP Design Handbook. Second**,** design the LID BMP to meet the required V_{BMP} using a method approved by the Copermittee. Utilize the worksheets found in the LID BMP Design Handbook or consult with your Copermittee to assist you in correctly sizing your LID BMPs. Complete Table D.3 below to document the Design Capture Volume and the Proposed Volume for each LID BMP. Provide the completed design procedure sheets for each LID BMP in Appendix 6. You may add additional rows to the table below as needed.

Table D.3 DCV Calculations for LID BMPs

DMA Type/ID	DMA Area (square feet)	Post-Project Surface Type	Effective Impervious Fraction, I_f	DMA Runoff Factor	DMA Areas x Runoff Factor	*BMP-A*		
	[A]		[B]	[C]	[A] x [C]			
L-A	*108,920*	*LANDSCAPE*	*0.1*	*0.11*	*12,031.1*			
R-A	*759,600*	*ROOF*	*1.0*	*0.89*	*677,563.2*			
H-A	*629,280*	*HARDSCAPE*	*1.0*	*0.89*	*561,317.8*			
BMP-A	*200*	*LANDSCAPE*	*0.1*	*0.11*	*22.1*			
SR-A	*23,740*	*LANDSCAPE*						
SELF-TREATING	*31,090*	*LANDSCAPE*						
						Design Storm Depth (in)	*Design Capture Volume,* V_{BMP} *(cubic feet)*	*Proposed Volume on Plans (cubic feet)*
	1,552,830				*1,250,934.2*	*0.62*	*64,631.6*	*64,650*

[B], [C] is obtained as described in Section 2.3.1 of the WQMP Guidance Document

[E] is obtained from Exhibit A in the WQMP Guidance Document

[G] is obtained from a design procedure sheet, such as in LID BMP Design Handbook and placed in Appendix 6

Section E: Alternative Compliance (LID Waiver Program)

LID BMPs are expected to be feasible on virtually all projects. Where LID BMPs have been demonstrated to be infeasible as documented in Section D, other Treatment Control BMPs must be used (subject to LID waiver approval by the Copermittee). Check one of the following Boxes:

☒ LID Principles and LID BMPs have been incorporated into the site design to fully address all Drainage Management Areas. No alternative compliance measures are required for this project and thus this Section is not required to be completed.

- *Or* -

☐ The following Drainage Management Areas are unable to be addressed using LID BMPs. A site-specific analysis demonstrating technical infeasibility of LID BMPs has been approved by the Co-Permittee and included in Appendix 5. Additionally, no downstream regional and/or sub-regional LID BMPs exist or are available for use by the project. The following alternative compliance measures on the following pages are being implemented to ensure that any pollutant loads expected to be discharged by not incorporating LID BMPs, are fully mitigated.

E.1 Identify Pollutants of Concern

Utilizing Table A.1 from Section A above which noted your project's receiving waters and their associated EPA approved 303(d) listed impairments, cross reference this information with that of your selected Priority Development Project Category in Table E.1 below. If the identified General Pollutant Categories are the same as those listed for your receiving waters, then these will be your Pollutants of Concern and the appropriate box or boxes will be checked on the last row. The purpose of this is to document compliance and to help you appropriately plan for mitigating your Pollutants of Concern in lieu of implementing LID BMPs.

Table E.1 Potential Pollutants by Land Use Type

Priority Development Project Categories and/or Project Features (check those that apply)	General Pollutant Categories							
	Bacterial Indicators	Metals	Nutrients	Pesticides	Toxic Organic Compounds	Sediments	Trash & Debris	Oil & Grease
☐ Detached Residential Development	P	N	P	P	N	P	P	P
☐ Attached Residential Development	P	N	P	P	N	P	P	P(2)
☒ Commercial/Industrial Development	P(3)	P	P(1)	P(1)	P(5)	P(1)	P	P
☐ Automotive Repair Shops	N	P	N	N	P(4, 5)	N	P	P
☐ Restaurants (>5,000 ft^2)	P	N	N	N	N	N	P	P
☐ Hillside Development (>5,000 ft^2)	P	N	P	P	N	P	P	P
☒ Parking Lots (>5,000 ft^2)	P(6)	P	P(1)	P(1)	P(4)	P(1)	P	P
☐ Retail Gasoline Outlets	N	P	N	N	P	N	P	P
Project Priority Pollutant(s) of Concern	☒	☐	☒	☒	☒	☐	☐	☐

P = Potential

N = Not Potential

(1) A potential Pollutant if non-native landscaping exists or is proposed onsite; otherwise not expected

(2) A potential Pollutant if the project includes uncovered parking areas; otherwise not expected

(3) A potential Pollutant is land use involving animal waste

(4) Specifically petroleum hydrocarbons

(5) Specifically solvents

(6) Bacterial indicators are routinely detected in pavement runoff

E.2 Stormwater Credits

Projects that cannot implement LID BMPs but nevertheless implement smart growth principles are potentially eligible for Stormwater Credits. Utilize Table 3-8 within the WQMP Guidance Document to identify your Project Category and its associated Water Quality Credit. If not applicable, write N/A.

Table E.2 Water Quality Credits

Qualifying Project Categories	Credit Percentage[2]
N/A	
Total Credit Percentage[1]	

[1]Cannot Exceed 50%

[2]Obtain corresponding data from Table 3-8 in the WQMP Guidance Document

E.3 Sizing Criteria

After you appropriately considered Stormwater Credits for your project, utilize Table E.3 below to appropriately size them to the DCV, or Design Flow Rate, as applicable. Please reference Chapter 3.5.2 of the WQMP Guidance Document for further information.

Table E.3 Treatment Control BMP Sizing

DMA Type/ID	**DMA Area (square feet)**	**Post-Project Surface Type**	**Effective Impervious Fraction, I_f**	**DMA Runoff Factor**	**DMA Area x Runoff Factor**		***Enter BMP Name / Identifier Here***		
	[A]		[B]	[C]	[A] x [C]				
N/A						*Design Storm Depth (in)*	*Minimum Design Capture Volume or Design Flow Rate (cubic feet or cfs)*	*Total Storm Water Credit % Reduction*	*Proposed Volume or Flow on Plans (cubic feet or cfs)*
	A_T = Σ[A]				Σ= [D]	[E]	$[F] = \frac{[D]x[E]}{[G]}$	[F] X (1-[H])	[I]

[B], [C] is obtained as described in Section 2.3.1 from the WQMP Guidance Document

[E] is for Flow-Based Treatment Control BMPs [E] = .2, for Volume-Based Control Treatment BMPs, [E] obtained from Exhibit A in the WQMP Guidance Document

[G] is for Flow-Based Treatment Control BMPs [G] = 43,560, for Volume-Based Control Treatment BMPs, [G] = 12

[H] is from the Total Credit Percentage as Calculated from Table E.2 above

[I] as obtained from a design procedure sheet from the BMP manufacturer and should be included in Appendix 6

E.4 Treatment Control BMP Selection

Treatment Control BMPs typically provide proprietary treatment mechanisms to treat potential pollutants in runoff, but do not sustain significant biological processes. Treatment Control BMPs must have a removal efficiency of a medium or high effectiveness as quantified below:

- **High**: equal to or greater than 80% removal efficiency
- **Medium**: between 40% and 80% removal efficiency

Such removal efficiency documentation (e.g., studies, reports, etc.) as further discussed in Chapter 3.5.2 of the WQMP Guidance Document, must be included in Appendix 6. In addition, ensure that proposed Treatment Control BMPs are properly identified on the WQMP Site Plan in Appendix 1.

Table E.4 Treatment Control BMP Selection

Selected Treatment Control BMP Name or ID[1]	Priority Pollutant(s) of Concern to Mitigate[2]	Removal Efficiency Percentage[3]
Contech Filterra Bioscape (BMP-A)	TSS/TOC	66%-85%
	Nutrients	73%

[1] *Treatment Control BMPs must not be constructed within Receiving Waters. In addition, a proposed Treatment Control BMP may be listed more than once if they possess more than one qualifying pollutant removal efficiency.*
[2] *Cross Reference Table E.1 above to populate this column.*
[3] *As documented in a Co-Permittee Approved Study and provided in Appendix 6.*

Section F: Hydromodification

F.1 Hydrologic Conditions of Concern (HCOC) Analysis

Once you have determined that the LID design is adequate to address water quality requirements, you will need to assess if the proposed LID Design may still create a HCOC. Review Chapters 2 and 3 (including Figure 3-7) of the WQMP Guidance Document to determine if your project must mitigate for Hydromodification impacts. If your project meets one of the following criteria which will be indicated by the check boxes below, you do not need to address Hydromodification at this time. However, if the project does not qualify for Exemptions 1, 2 or 3, then additional measures must be added to the design to comply with HCOC criteria. This is discussed in further detail below in Section F.2.

HCOC EXEMPTION 1: The Priority Development Project disturbs less than one acre. The Copermittee has the discretion to require a Project-Specific WQMP to address HCOCs on projects less than one acre on a case by case basis. The disturbed area calculation should include all disturbances associated with larger common plans of development.

Does the project qualify for this HCOC Exemption? ☐ Y ☒ N

If Yes, HCOC criteria do not apply.

HCOC EXEMPTION 2: The volume and time of concentration[1] of storm water runoff for the post-development condition is not significantly different from the pre-development condition for a 2-year return frequency storm (a difference of 5% or less is considered insignificant) using one of the following methods to calculate:

- Riverside County Hydrology Manual
- Technical Release 55 (TR-55): Urban Hydrology for Small Watersheds (NRCS 1986), or derivatives thereof, such as the Santa Barbara Urban Hydrograph Method
- Other methods acceptable to the Co-Permittee

Does the project qualify for this HCOC Exemption? ☐ Y ☒ N

If Yes, report results in Table F.1 below and provide your substantiated hydrologic analysis in Appendix 7.

Table F.1 Hydrologic Conditions of Concern Summary

	2 year – 24 hour		
	Pre-condition	**Post-condition**	**% Difference**
Time of Concentration	N/A		
Volume (Cubic Feet)			

[1] Time of concentration is defined as the time after the beginning of the rainfall when all portions of the drainage basin are contributing to flow at the outlet.

HCOC EXEMPTION 3: All downstream conveyance channels to an adequate sump (for example, Prado Dam, Lake Elsinore, Canyon Lake, Santa Ana River, or other lake, reservoir or naturally erosion resistant feature) that will receive runoff from the project are engineered and regularly maintained to ensure design flow capacity; no sensitive stream habitat areas will be adversely affected; or are not identified on the Co-Permittees Hydromodification Susceptibility Maps.

Does the project qualify for this HCOC Exemption? ☐ Y ☒ N

If Yes, HCOC criteria do not apply and note below which adequate sump applies to this HCOC qualifier:

F.2 HCOC Mitigation

If none of the above HCOC Exemption Criteria are applicable, HCOC criteria is considered mitigated if they meet one of the following conditions:

a. Additional LID BMPS are implemented onsite or offsite to mitigate potential erosion or habitat impacts as a result of HCOCs. This can be conducted by an evaluation of site-specific conditions utilizing accepted professional methodologies published by entities such as the California Stormwater Quality Association (CASQA), the Southern California Coastal Water Research Project (SCCRWP), or other Co-Permittee approved methodologies for site-specific HCOC analysis.

b. The project is developed consistent with an approved Watershed Action Plan that addresses HCOC in Receiving Waters.

c. Mimicking the pre-development hydrograph with the post-development hydrograph, for a 2-year return frequency storm. Generally, the hydrologic conditions of concern are not significant, if the post-development hydrograph is no more than 10% greater than pre-development hydrograph. In cases where excess volume cannot be infiltrated or captured and reused, discharge from the site must be limited to a flow rate no greater than 110% of the pre-development 2-year peak flow.

Be sure to include all pertinent documentation used in your analysis of the items a, b or c in Appendix 7.

The project is located within the HCOC Exemption area as found in the approved Riverside County HCOC Applicability Map dated April 20, 2017. See Appendix 7 for approved HCOC Applicability Map.

Section G: Source Control BMPs

Source control BMPs include permanent, structural features that may be required in your project plans — such as roofs over and berms around trash and recycling areas — and Operational BMPs, such as regular sweeping and "housekeeping", that must be implemented by the site's occupant or user. The MEP standard typically requires both types of BMPs. In general, Operational BMPs cannot be substituted for a feasible and effective permanent BMP. Using the Pollutant Sources/Source Control Checklist in Appendix 8, review the following procedure to specify Source Control BMPs for your site:

1. ***Identify Pollutant Sources*:** Review Column 1 in the Pollutant Sources/Source Control Checklist. Check off the potential sources of Pollutants that apply to your site.

2. ***Note Locations on Project-Specific WQMP Exhibit*:** Note the corresponding requirements listed in Column 2 of the Pollutant Sources/Source Control Checklist. Show the location of each Pollutant source and each permanent Source Control BMP in your Project-Specific WQMP Exhibit located in Appendix 1.

3. ***Prepare a Table and Narrative*:** Check off the corresponding requirements listed in Column 3 in the Pollutant Sources/Source Control Checklist. In the left column of Table G.1 below, list each potential source of runoff Pollutants on your site (from those that you checked in the Pollutant Sources/Source Control Checklist). In the middle column, list the corresponding permanent, Structural Source Control BMPs (from Columns 2 and 3 of the Pollutant Sources/Source Control Checklist) used to prevent Pollutants from entering runoff. **Add additional narrative** in this column that explains any special features, materials or methods of construction that will be used to implement these permanent, Structural Source Control BMPs.

4. ***Identify Operational Source Control BMPs:*** To complete your table, refer once again to the Pollutant Sources/Source Control Checklist. List in the right column of your table the Operational BMPs that should be implemented as long as the anticipated activities continue at the site. Copermittee stormwater ordinances require that applicable Source Control BMPs be implemented; the same BMPs may also be required as a condition of a use permit or other revocable Discretionary Approval for use of the site.

Table G.1 Permanent and Operational Source Control Measures

Potential Sources of Runoff pollutants	Permanent Structural Source Control BMPs	Operational Source Control BMPs
A. On-site storm drain inlets	*Mark all inlets with the works "Only Rain Down the Storm Drain" or similar. Catch Basin Markers may be available from the Riverside County Flood Control and Water Conservation District, call 951-955-1200 to verify.*	*Maintain and periodically repaint or replace inlet markings as needed; at least every 5 years. Inspect annually every summer.* *Provide stormwater pollution prevention information to new site owners, lessees, or operators.* *See applicable operational BMPs in Fact Sheet SC-44, "Drainage System Maintenance," in Appendix 10 (CASQA Stormwater Quality*

	On-site drainage structures, including all storm drain clean outs, area drains, inlets, catch basins, inlet & outlet structures, lift stations, forebays, & water treatment control basins shall be inspected and maintained on a regular basis to ensure their operational adequacy. Inspect and maintain before each rainy season and after the first heavy rain.	*Handbook at www.cabmphandbooks.com* *Include the following in lessee agreements: "Tenants shall not allow anyone to discharge anything to storm drains or to store or deposit materials so as to create a potential discharge to storm drains"* *Maintenance should include removal of trash, debris, & sediment and the repair of any deficiencies or damage that may impact water quality. Maintain at least once in September prior to the rainy season and after storm as needed.*
B. Interior floor drains and elevator shaft sump	*The interior floor drains and elevator shaft sump pumps will be plumbed to sanitary sewer*	*Inspect and maintain drains at least once annually to prevent blockages and overflow.*
C. Landscape/Outdoor Pesticide Use	*The final landscape shall be designed to accomplish all of the following:* *Preserve existing native trees, shrubs and ground cover to the maximum extent possible.* *Design landscape to minimize irrigation and runoff, to promote surface infiltration where appropriate and to minimize the use of fertilizers and pesticides that can contribute to stormwater pollution.* *Where landscaped areas are used to retain or detain stormwater, specify plants that are tolerant of saturated soil conditions.* *Consider using pest-resistant plants, especially adjacent to hardscape.* *To ensure successful establishments, select plants appropriate to site, soils, slopes, climate, sun, wind, rain, land use, air movement, ecological consistency, and plant interactions.* *Pesticide usage should be at a necessary minimum and be consistent with the instructions*	*Maintain landscaping using minimum or no pesticides.* *See applicable operational BMPs in "What you should know for…. Landscape and Gardening" at http://rcflood.org/stormwater and Appendix 10.* *Provide IPM information to new owners, lessees and operators.* *Landscape maintenance should include mowing, weeding, trimming, removal of trash & debris, repair of erosion, re-vegetation, and removal of cut & dead vegetation. It should be completed before rainy season and as needed.* *Irrigation maintenance should include the repair of leaky or broken sprinkler heads, the maintaining of timing apparatus accuracy, and the maintaining of shut off valves in good working order.*

	contained on product labels and with the regulations administered by the State Department of Pesticide Regulation. Pesticides should be used at an absolute minimum or not at all in the retention/infiltration basin. If used, it should not be applied in close proximity to the rainy season.	
D. Refuse Trash Storage areas	*Trash container storage areas shall be paved with an impervious surface, designed not to allow run-on from adjoining areas, designed to divert drainage from adjoining roofs and pavements from the surrounding area, and screened or walled to prevent off-site transport of trash.* *Trash dumpsters (containers) shall be leak proof and have attached covers or lids.* *Trash enclosures shall be roofed per City standards and the details on the FWQMP Exhibit in Appendix 1.* *Trash compactors shall be roofed and set on a concrete pad per City standards. The pad shall be a minimum of one foot larger all around than the trash compactor and sloped to drain to a sanitary sewer line. Connection of trash area drains to the MS4 is prohibited.* *See CASQA SD-32 BMP Fact Sheets in Appendix 10 for additional info.* *Signs shall be posted on or near dumpsters with the words "Do not dump hazardous materials here" or similar.*	*Adequate number of receptacles shall be provided. Inspect receptacles monthly; repair or replace leaky receptacles as needed. Keep receptacles covered.* *Prohibit/prevent dumping of liquid or hazardous wastes. Post "no hazardous materials" signs. Inspect and pick up litter daily and clean up spills immediately. Keep spill control materials available on-site. See Fact Sheet SC-34, in Appendix 10, "Waste Handling and Disposal" in the CASQA Stormwater Quality Handbook at www.cabmphandbooks.com*
E. Loading Docks	*Loading docks will not be covered and are 4 feet above finished pavement surface.* *Spill kits are to be kept on-site at all times per SC-11*	*Move loaded and unloaded items indoors as soon as possible.* *Inspect for accumulated trash and debris. Implement good housekeeping procedures on a regular basis. Sweep areas clean instead of using wash water.* *Loading docks will be kept in a clean and orderly condition, through a regular program of sweeping and litter control, and immediate cleanup of any spills or broken containers. Property owner will ensure that*

		loading docks will be swept as needed. Cleanup procedures will not include the use of wash-down water. Property owner will be responsible for implementation of loading dock housekeeping procedures *See the Fact Sheet SC-30, in Appendix 10, "Outdoor Loading and Unloading" in the CASQA Stormwater Quality Handbooks a www.cabmphandbooks.com*
F. Fire Sprinkler Test Water	*Provide a means to drain fire sprinkler test water to the sanitary sewer.*	*See the note in the Fact Sheet SC-41, in Appendix 10, "Building and Grounds Maintenance", in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com*
G. Miscellaneous Drain or Wash Water or Other Sources *Boiler drain lines* *Condensate drain lines* *Rooftop equipment* *Drainage sumps* *Roofing, gutters and trim* *Other sources*	*Boiler drain lines shall be directly or indirectly connected to the sanitary sewer system and may not discharge to the storm drain system* *Condensate drain lines may discharge to landscaped areas if the flow is small enough that runoff will not occur.* *Condensate drain lines may not discharge to the storm drain system.* *Rooftop equipment with potential to produce pollutants shall be roofed and/or have secondary containment.* *Any drainage sumps on-site shall feature a sediment sump to reduce the quantity of sediment in pumped water.* *Avoid roofing, gutters and trim made of copper of other unprotected metals that may leach into runoff.* *Include controls for other sources as specified by local reviewer.*	
H. Plazas, sidewalks, and parking lots	*Spill kits are to be kept on-site at all times per SC-11*	*Sweep plazas, sidewalks, and parking lots regularly and before the rainy season to prevent accumulation of litter and debris. Collect debris from pressure washing to prevent entry into the storm drain system. Collect washwater containing any cleaning agent or degreaser and discharge to*

		the sanitary sewer not to a storm drain.

Section H: Construction Plan Checklist

Populate Table H.1 below to assist the plan checker in an expeditious review of your project. The first two columns will contain information that was prepared in previous steps, while the last column will be populated with the corresponding plan sheets. This table is to be completed with the submittal of your final Project-Specific WQMP.

Table H.1 Construction Plan Cross-reference

BMP No. or ID	BMP Identifier and Description	Corresponding Plan Sheet(s)	BMP Location (Lat/Long)
*	*	*	*

Note that the updated table — or Construction Plan WQMP Checklist — is **only a reference tool** to facilitate an easy comparison of the construction plans to your Project-Specific WQMP. Co-Permittee staff can advise you regarding the process required to propose changes to the approved Project-Specific WQMP.

*To be completed during final engineering

Section I: Operation, Maintenance and Funding

The Copermittee will periodically verify that Stormwater BMPs on your site are maintained and continue to operate as designed. To make this possible, your Copermittee will require that you include in Appendix 9 of this Project-Specific WQMP:

1. A means to finance and implement facility maintenance in perpetuity, including replacement cost.
2. Acceptance of responsibility for maintenance from the time the BMPs are constructed until responsibility for operation and maintenance is legally transferred. A warranty covering a period following construction may also be required.
3. An outline of general maintenance requirements for the Stormwater BMPs you have selected.
4. Figures delineating and designating pervious and impervious areas, location, and type of Stormwater BMP, and tables of pervious and impervious areas served by each facility. Geo-locating the BMPs using a coordinate system of latitude and longitude is recommended to help facilitate a future statewide database system.
5. A separate list and location of self-retaining areas or areas addressed by LID Principles that do not require specialized O&M or inspections but will require typical landscape maintenance as noted in Chapter 5, pages 85-86, in the WQMP Guidance. Include a brief description of typical landscape maintenance for these areas.

Your local Co-Permittee will also require that you prepare and submit a detailed Stormwater BMP Operation and Maintenance Plan that sets forth a maintenance schedule for each of the Stormwater BMPs built on your site. An agreement assigning responsibility for maintenance and providing for inspections and certification may also be required.

Details of these requirements and instructions for preparing a Stormwater BMP Operation and Maintenance Plan are in Chapter 5 of the WQMP Guidance Document.

Maintenance Mechanism: WQMP Covenant and Agreement

Will the proposed BMPs be maintained by a Home Owners' Association (HOA) or Property Owners Association (POA)?

☐ Y ☒ N

Include your Operation and Maintenance Plan and Maintenance Mechanism in Appendix 9. Additionally, include all pertinent forms of educational materials for those personnel that will be maintaining the proposed BMPs within this Project-Specific WQMP in Appendix 10.

*More information to be provided during final engineering

Appendix 1: Maps and Site Plans

Location Map, WQMP Site Plan and Receiving Waters Map

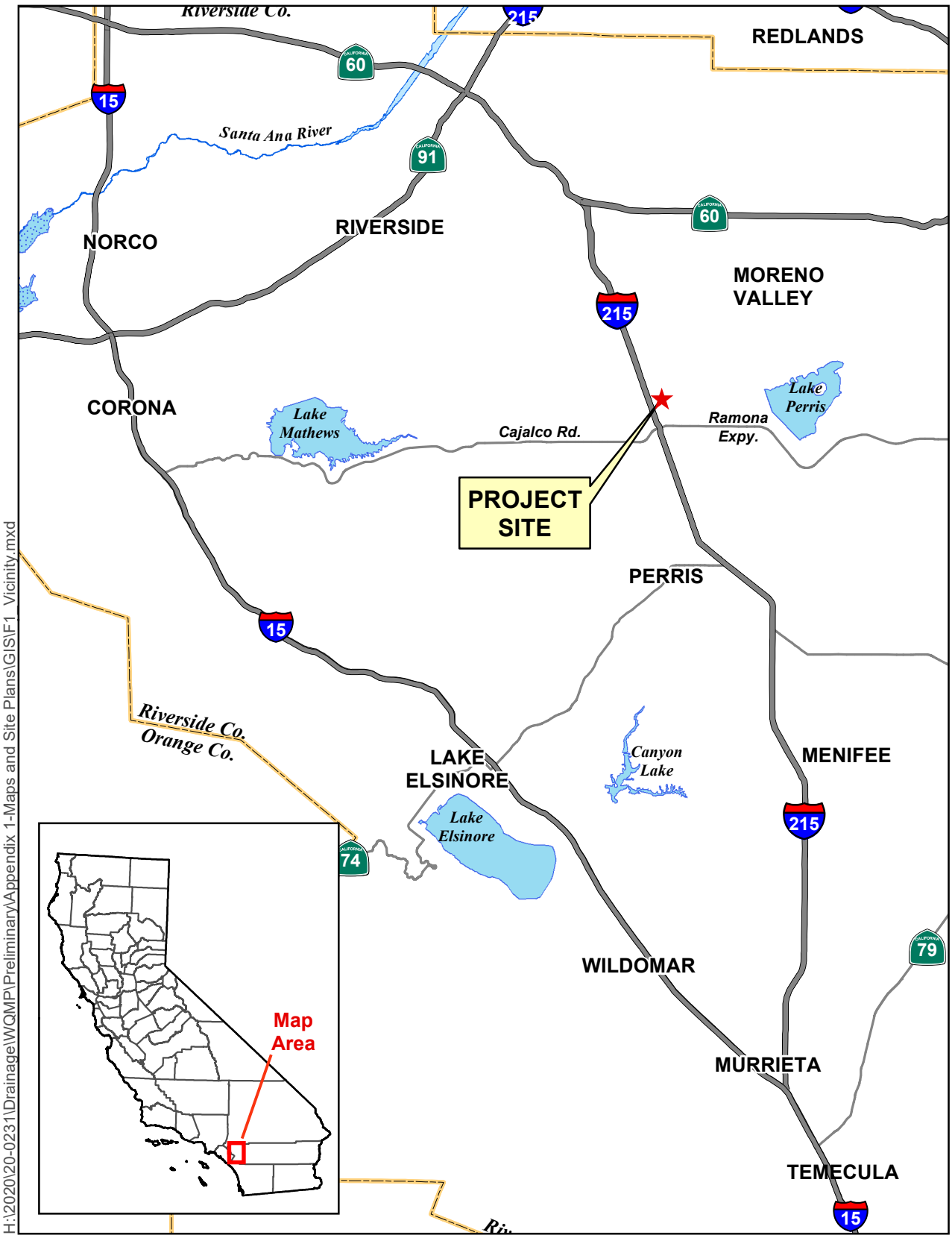
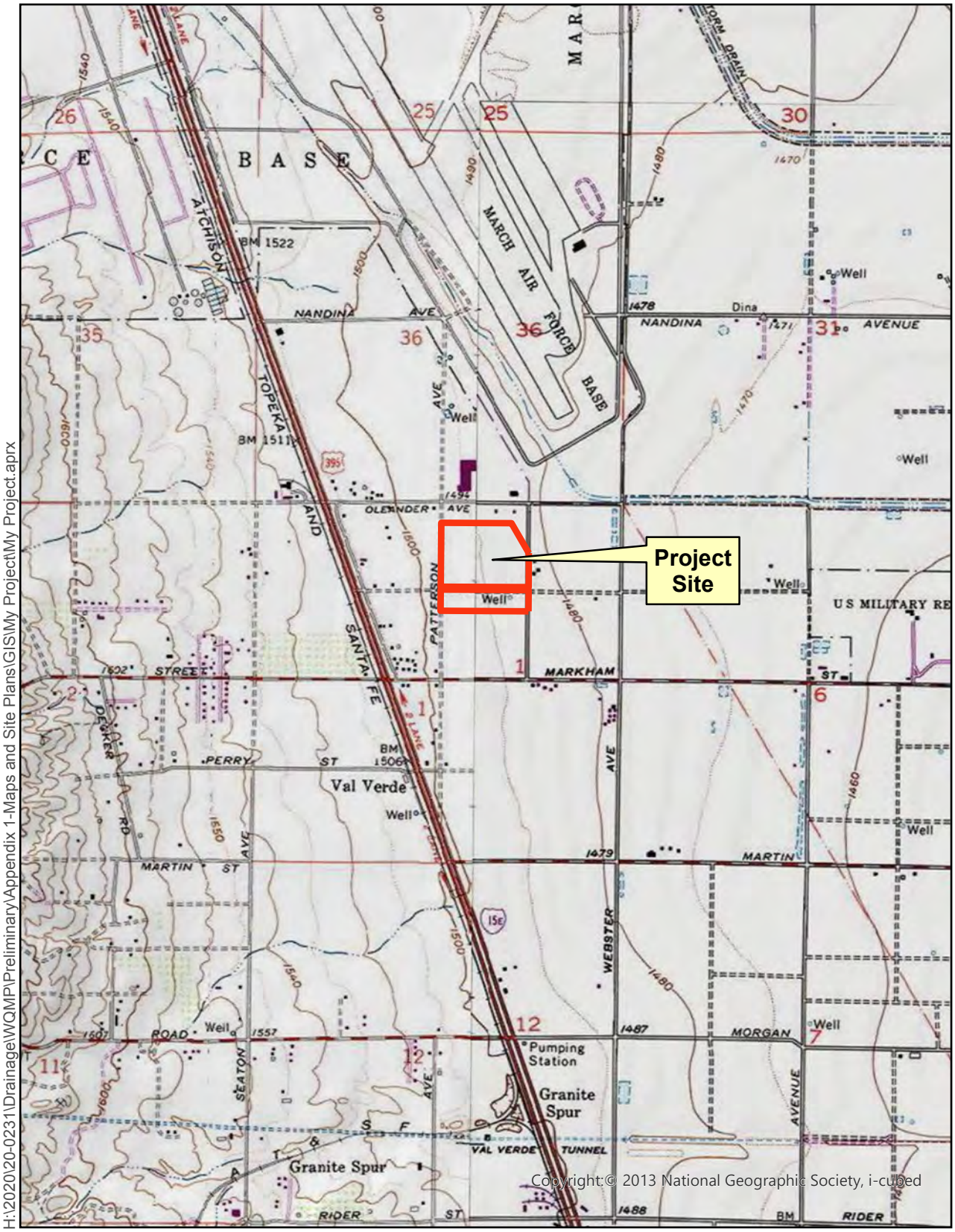


Figure 1. Vicinity Map

0 2.5 5 Miles

Albert A. WEBB Associates



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Sources: ESRI / USGS 7.5min Quad
DRGs: PERRIS

Figure 2. USGS Topography Map

0 1,000 2,000
Feet

Albert A. WEBB Associates

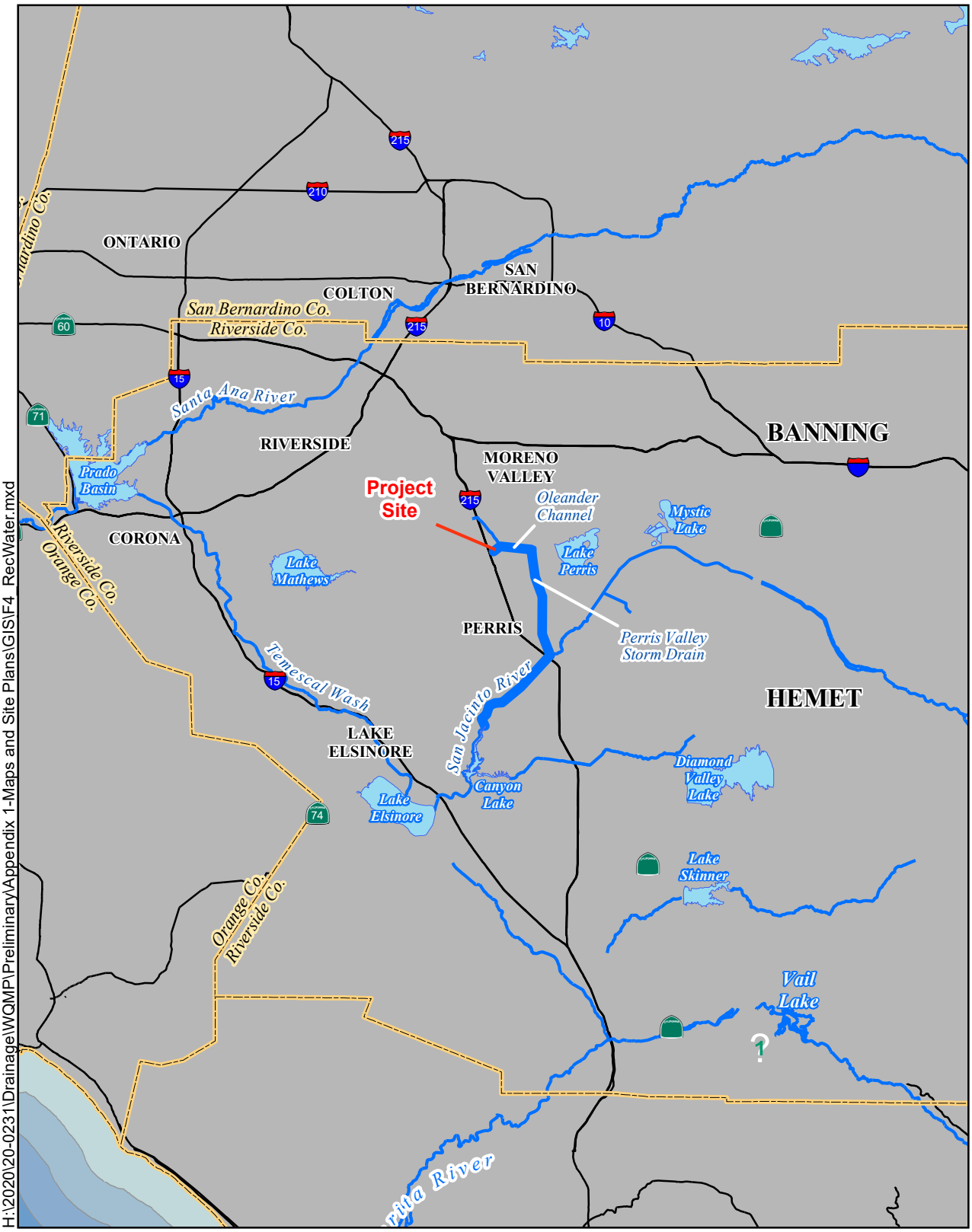


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Sources: County of Riverside GIS; Eagle Aerial, 2016.

Figure 3. Aerial Photograph

0 500 1,000 Feet



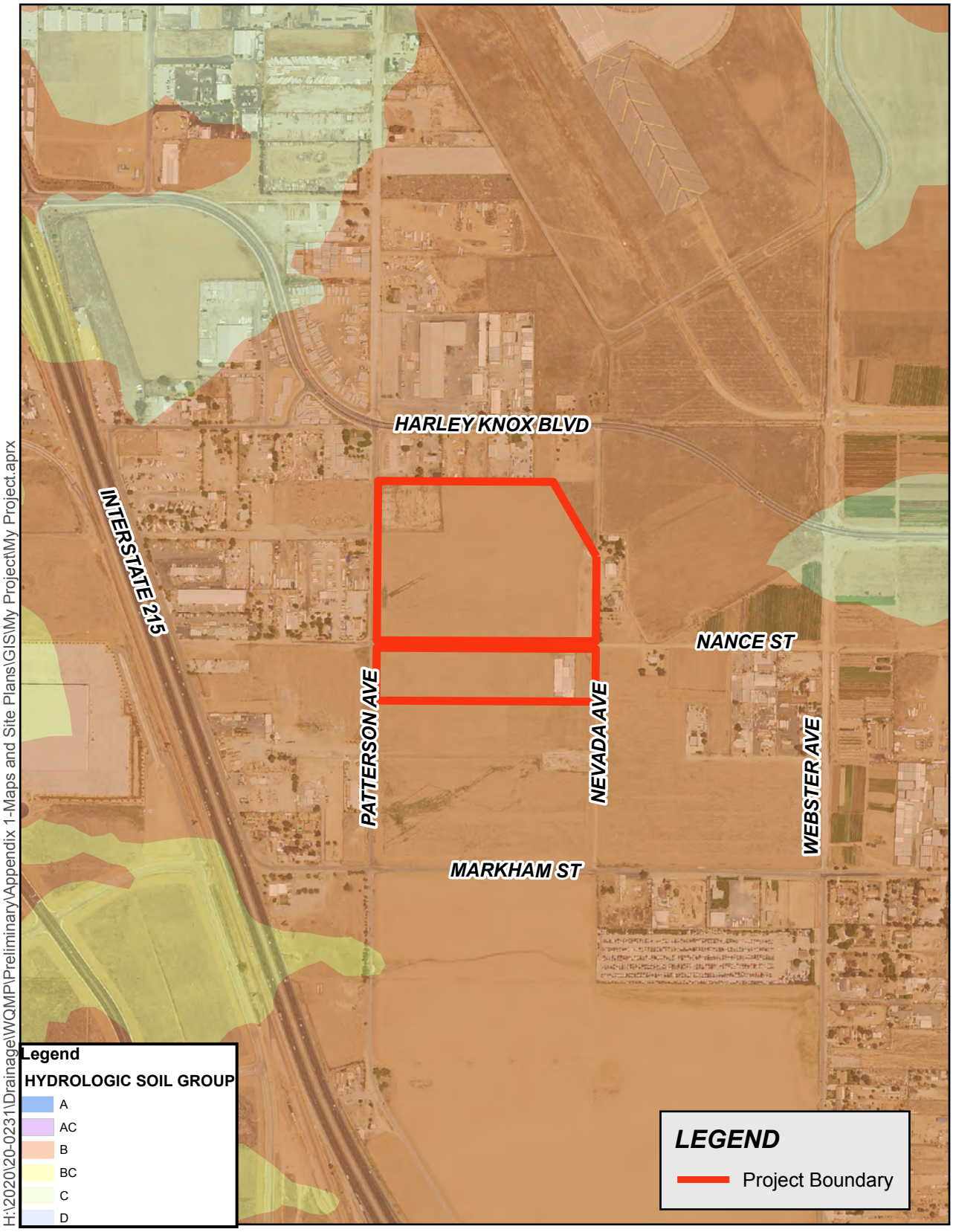
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Sources: USGS 30 Meter DEM;
USGS Digital Line Graph

Figure 4. Receiving Waterbodies

0 2 4 6
Miles

Flowpath



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Eagle Aerial, April 2010;
Riverside County GIS, 2012
RCFC&WCD Hydology Manual Plate C-1.30

N
W E
S

0 500 1,000
Feet

Figure 5. Soils Map

PATTERSON AVENUE

NEVADA AVENUE

NANCE STREET

LAT-B6

LAT-1B

LINE-1

LAT-B6.1

LINE-1

SITE OUTLET/HIGH FLOW BYPASS
Q_{P10}=44.8 CFS
Q_{P100}=72.4 CFS

BMP-A
CONTECH BIOSCAPE
TREATS 340 GPM TO
DEWATER WQV IN 24 HOURS

WQV LIFT STATION
340 GPM

LAT-1A

DMA-A
35.6 ACRES

UNDERGROUND CHAMBERS-A
WQV=64,650 FT³
DRAWDOWN=24 HOURS

LAT-2A

WEST COLLECTOR CHANNEL

LINE-2

LAT-2B

LINE-2

NANCE STREET

LEGEND

- DRAINAGE MANAGEMENT BOUNDARY
- LANDSCAPING
- SELF-RETAINING
- ROOF
- CONCRETE OR ASPHALT
- WQ BASIN
- SELF-TREATING
- FLOW DIRECTION
- STORM DRAIN PIPE
- ROOF DRAIN DOWNSPOUT
- CURB OPENING/CUT
- STORM INLET
- TRASH ENCLOSURE

DRAINAGE MANAGEMENT AREAS

LEGEND	DMA-ID	TYPE	AREA (SF)
	L-A	LANDSCAPE	108,920
	R-A	ROOF	759,600
	H-A	HARDSCAPE	629,280
	BMP-A	LANDSCAPE	200
	SR-A	LANDSCAPE	23,740
	SELF-TREATING	LANDSCAPE	31,090

N
W WEBB E
S

1" = 60'

60 0 60 120 180

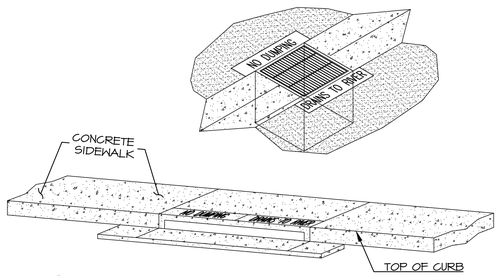
PRELIMINARY

CITY OF PERRIS

POST CONSTRUCTION BMP SITE MAP
DUKE - PATTERSON AND NANCE
P21-00005

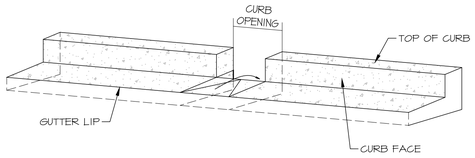
SCALE: 1"=60'	ALBERT A. WEBB ASSOCIATES	W.O. 20-0231
DATE: 3/9/2022	ENGINEERING CONSULTANTS 3788 McCRAY STREET RIVERSIDE CA. 92506 PH. (951) 686-1070 FAX (951) 788-1256	SHEET |
DESIGNED: TSN		OF 2 SHEETS
CHECKED: CV		DWG. NO.
PLN CK REF:		
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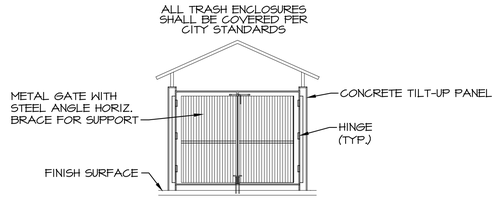


1. STENCILS TO HAVE 2" LETTERS AS FOLLOWS: "NO DUMPING - DRAINS TO RIVER"
2. PLACE BOTH STENCILS CENTERED WITHIN THE CATCHBASIN OPENINGS AND WITHIN THE TOP OF THE CURB.
3. SPRAY BOTH STENCILS WITH WHITE PAINT.
4. REMOVE STENCILS WHEN PAINT IS DRY.

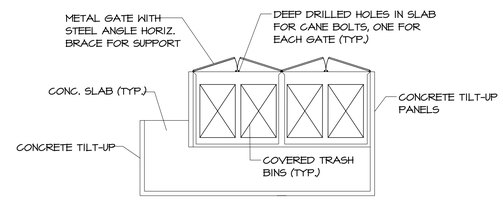
CATCH BASIN STENCILING DETAIL
N.T.S.



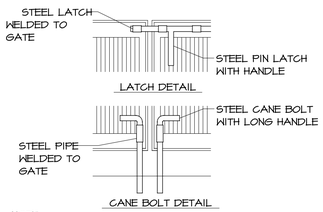
TYPICAL CURB OPENING DETAIL
N.T.S.



TRASH ENCLOSURE GATE ELEVATION
N.T.S.

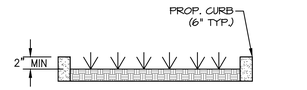


TRASH ENCLOSURE PLAN DETAIL
N.T.S.

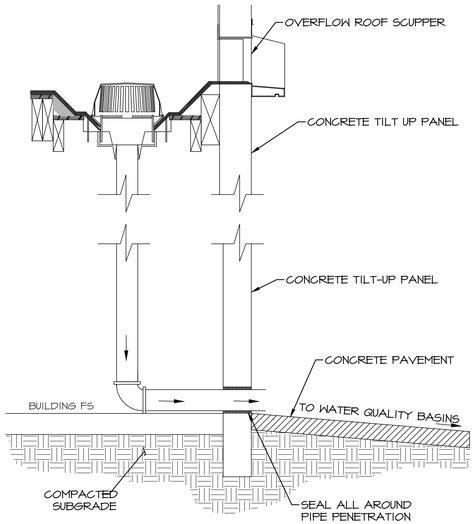


NOTE:
LATCH AND CANE TO BE AT EXTERIOR SIDE OF GATES

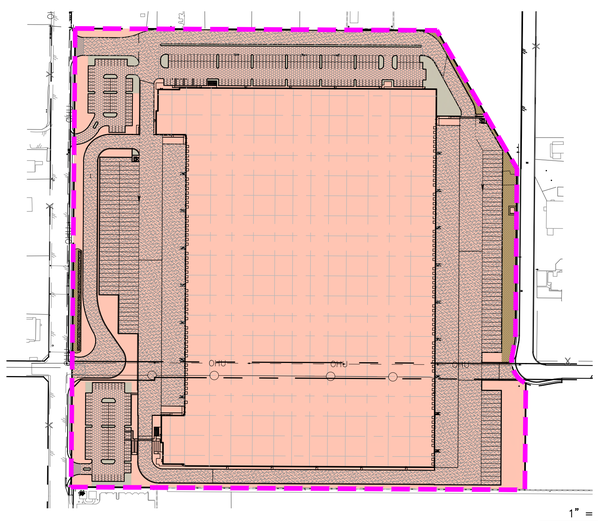
TRASH ENCLOSURE GATE LATCHES DETAIL
N.T.S.



SELF-RETAINING FINGER ISLAND
N.T.S.
ALL SELF-RETAINING AREAS WILL BE DEPRESSED A MINIMUM OF 2-INCHES

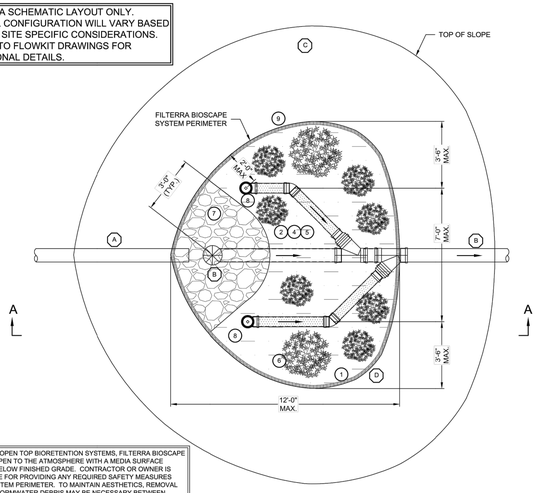


ROOF DRAIN DETAIL
N.T.S.



BMP-A
N.T.S.

THIS IS A SCHEMATIC LAYOUT ONLY. ACTUAL CONFIGURATION WILL VARY BASED ON THE SITE SPECIFIC CONSIDERATIONS. REFER TO FLOWKIT DRAWINGS FOR ADDITIONAL DETAILS.



AS WITH ALL OPEN TOP BIORETTENTION SYSTEMS, FILTERRA BIOSCAPE SYSTEM IS OPEN TO THE ATMOSPHERE WITH A MEDIA SURFACE RECESSED BELOW FINISHED GRADE. CONTRACTOR OR OWNER IS RESPONSIBLE FOR PROVIDING ANY REQUIRED SAFETY MEASURES AROUND SYSTEM PERIMETER. TO MAINTAIN AESTHETICS, REMOVAL OF HEAVY STORMWATER DEBRIS MAY BE NECESSARY BETWEEN REGULAR FILTERRA SYSTEM MAINTENANCE EVENTS.

BILL OF MATERIALS

COUNT	DESCRIPTION	INSTALLED BY
X	FILTERRA SURFACE AREA (SF)	CONTRACTOR
X	MULCH VOLUME (CY)	CONTRACTOR
XX	FILTERRA MEDIA VOLUME (CY)	CONTRACTOR
X	1/2" #4 ROUND AGGREGATE UNDERDRAIN STONE (CY)	CONTRACTOR
X	ENERGY DISSIPATION ROCK (CY)	CONTRACTOR
X	EROSION CONTROL (LF)	CONTRACTOR
X	FILTERRA FLOWKIT	CONTRACTOR

PLANTING SCHEDULE
*NOTE: PLANTS PROVIDED BY OTHERS

QUANTITY	FILTERRA BIOSCAPE SYSTEM PLANT PALETTE

GENERAL NOTES
1. CONTRACTOR SHALL CONTACT CONTECH TO COORDINATE DELIVERY AND SUPERVISION OF PLACEMENT OF FILTERRA BIOSCAPE SYSTEM COMPONENTS (ACTIVATION). CONTRACTOR SHALL COMPLETE ITEMS IN THE LIST OF CONTRACTOR INSTALLATION RESPONSIBILITIES LISTED ON THIS DETAIL BEFORE CONTECH'S REPRESENTATIVE ATTENDS AND SUPERVISES THE ACTIVATION OF THE BIOSCAPE SYSTEM.
2. PERFORM FILTERRA BIOSCAPE SYSTEM EXCAVATION ONLY AFTER ALL THE CONTRIBUTING DRAINAGE AREAS ARE PERMANENTLY STABILIZED. DO NOT CONSTRUCT FILTERRA BIOSCAPE SYSTEM IN AN AREA USED AS EROSION AND SEDIMENT CONTROL FACILITIES. DO NOT STOCKPILE MATERIALS NOR STORE EQUIPMENT IN THIS AREA.
3. USE METHODS OF EXCAVATION THAT MINIMIZE COMPACTION OF THE UNDERLYING SOIL UNLESS THE SYSTEM IS TO BE LINED.
4. CONTRACTOR SHALL COORDINATE WITH CONTECH BEFORE THE FILTERRA BIOSCAPE SYSTEM AREA IS EXCAVATED TO MINIMIZE TIME BETWEEN EXCAVATION AND DELIVERY AND ACTIVATION OF THE FILTERRA BIOSCAPE SYSTEM. ANY STANDING WATER THAT ACCUMULATES IN THE EXCAVATED AREA MUST BE REMOVED BY THE CONTRACTOR BEFORE CONTECH CAN PROVIDE ACTIVATION OF THE FILTERRA BIOSCAPE SYSTEM. ANY ADDITIONAL EXCAVATION WILL BE THE RESPONSIBILITY OF THE CONTRACTOR. EXCAVATION DIMENSIONS SHOULD BE PROVIDED TO CONTECH IN THE ACTIVATION REQUEST CHECKLIST.
5. CONTRACTOR SHALL PROVIDE ACCESS TO THE EXCAVATED AREA(S) FOR USE DURING THE ACTIVATION OF THE FILTERRA BIOSCAPE SYSTEM(S). ACCESS SHALL NOT PROHIBIT LIGHT DUTY EQUIPMENT THAT MAY BE USED TO INSTALL THE COMPONENTS (STONE, MEDIA, ETC). THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY RE-STABILIZATION THAT MAY BE REQUIRED AFTER THE FILTERRA BIOSCAPE SYSTEM ACTIVATION.
6. CONTECH AND/OR ITS REPRESENTATIVES MUST BE SCHEDULED TO BE ON SITE FOR THE LIST ENTITLED CONTRACTOR ACTIVATION RESPONSIBILITIES.

CONTRACTOR SITE PREPARATION RESPONSIBILITIES AS DENOTED BY (X) ON THIS DETAIL:
- (A) CONTRACTOR SHALL INSTALL PIPE OR SWALE THAT CONVEYS INFLUENT FLOWS AS WELL AS ANY REQUIRED INLET AND OUTLET STRUCTURES.
- (B) CONTRACTOR SHALL PROVIDE BYPASS PIPE AND RISER OR OTHER STRUCTURE AS SHOWN ON PLANS. THE BYPASS PIPE SHALL BE INSTALLED WITH WYE(S), OR OTHER PIPE FITTINGS, AND WITH REDUCER COUPLING(S) FOR CONNECTION OF UNDERDRAIN PIPE, PER PLANS. PIPES SHALL BE INSTALLED TO PROMOTE POSITIVE FLOW FROM THE FILTERRA BIOSCAPE SYSTEM.
- (C) IF REQUIRED, CONTRACTOR TO PROVIDE SHOULDER ACCORDING TO DIMENSION AND SLOPE SHOWN ON PLANS OR AS DESIGNED BY ENGINEER OF RECORD. SLOPE FROM SHOULDER TO FILTERRA BIOSCAPE SYSTEM SURFACE AREA SHALL NOT EXCEED 3:1. SOD IS REQUIRED TO STABILIZE SIDE SLOPES OR ADJACENT GRADE.
- (D) CONTRACTOR TO EXCAVATE MEDIA AREA CORRESPONDING TO THE SIZE OF THE FILTERRA BIOSCAPE SYSTEM SURFACE AREA AS SHOWN ON DETAIL AND ON PLAN SHEETS.
- (E) CONTRACTOR SHALL EXCAVATE VERTICALLY FROM BOTTOM OF UNDERDRAIN STONE, OR DRAINAGE STONE, IF REQUIRED, TO ELEVATION OF MULCH AS SHOWN ON THIS DETAIL.
- (F) CONTRACTOR TO PROVIDE AND INSTALL ANY GEOTEXTILE OR IMPERMEABLE LINER FOR BOTTOM OF THE FILTERRA BIOSCAPE SYSTEM IF REQUIRED PER THE PLANS.
- (G) CONTRACTOR TO PROVIDE AND INSTALL ANY ADDITIONAL DRAINAGE STONE BELOW THE FILTERRA BIOSCAPE SYSTEM AS CALLED OUT ON THE PLANS.

CONTRACTOR ACTIVATION RESPONSIBILITIES AS DENOTED BY (#) ON THIS DETAIL:
- (1) PLACE GEOTEXTILE FABRIC ALONG THE PERIMETER OF THE FILTERRA BIOSCAPE SYSTEM EXCAVATION.
- (2) PLACE 10" OF UNDERDRAIN STONE - 2" UNDER THE PIPING, 6" AROUND THE PIPING AND 2" ABOVE THE PIPING USING LIGHT DUTY EQUIPMENT ONLY.
- (3) PLACE 6" UNDERDRAIN PIPING UNLESS OTHERWISE APPROVED BY CONTECH, ASSOCIATED PIPING AND FITTINGS/ELBOWS TO CONNECT TO THE PIPING/FITTING(S) THAT IS PROVIDED BY CONTRACTOR (SEE CONTRACTOR INSTALLATION RESPONSIBILITIES THIS DETAIL).
- (4) PLACE 21" FILTERRA MEDIA USING LIGHT DUTY EQUIPMENT ONLY. DO NOT COMPACT MEDIA.
- (5) PLACE 3" DOUBLE SHREDDED HARDWOOD MULCH OVER ENTIRE FILTERRA BIOSCAPE SYSTEM SURFACE AREA USING LIGHT DUTY EQUIPMENT ONLY. DO NOT COMPACT MULCH.
- (6) PROVIDE AND PLANT VEGETATION AS INDICATED IN TABLE ON THIS DETAIL OR ON SITE PLANS.
- (7) PLACE ENERGY DISSIPATION ROCK APRON AS DESIGNED AND INDICATED ON THIS DETAIL OR PER ENGINEER OF RECORD PLANS.
- (8) PLACE CLEANOUT ADAPTER, PLUG AND PIPING.
- (9) PLACE ADDITIONAL EROSION CONTROL AROUND FILTERRA BIOSCAPE SYSTEM (IF REQUIRED).

CONTECH ENGINEERED SOLUTIONS LLC
www.ContechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

FILTERRA BIOSCAPE™ SYSTEM STANDARD DETAIL

PRELIMINARY

CITY OF PERRIS

POST CONSTRUCTION BMP SITE MAP DUKE - PATTERSON AND NANCE P21-00005

SCALE: SEE ABOVE	ALBERT A. WEBB ASSOCIATES — ENGINEERING CONSULTANTS, 3788 McCRAY STREET, RIVERSIDE CA. 92506, PH. (951) 686-1070, FAX (951) 788-1256	W.O. 20-0231
DATE: 3/9/2022		SHEET 1
DESIGNED: TSW		OF 2 SHEETS
CHECKED: CV		DWG. NO.
PLN CK REF:		
F.B.		

H:\2020\20-0231\DRAINAGE\WQMP\PRELIMINARY\DWG DRAWINGS\20-0231-PWQMP.DWG 3/9/2022 11:26:13 AM

I:\COMMON\CAD\TREATMENT\04 FILTERRA\03 STANDARD DRAWINGS\FTBS - BIOSCAPE SYSTEM (BOXLESS)\DWG\FILTERRA BIOSCAPE SUPERVISED SYSTEM - STD DETAIL.DWG 5/21/2020 8:57 AM

Appendix 2: Construction Plans

Grading and Drainage Plans

*To be included in FWQMP

Appendix 3: Soils Information

Geotechnical Study and Other Infiltration Testing Data

December 24, 2020

Duke Realty
200 Spectrum Center Drive, Suite 1600
Irvine, California 92618

Attention: Mr. George Atalla
Assistant Development Services Manager

Project No.: **20G239-2**

Subject: **Results of Infiltration Testing**
Proposed Warehouse
NEC Patterson Avenue and Nance Street
Perris, California

Reference: Geotechnical Investigation, Proposed Warehouse, NEC Patterson Avenue and Nance Street, Perris, California, prepared by Southern California Geotechnical, Inc. (SCG) for Duke Realty, SCG project No. 20G239-1, dated December 24, 2020.

Mr. Atalla:

In accordance with your request, we have conducted infiltration testing at the subject site. We are pleased to present this report summarizing the results of the infiltration testing and our design recommendations.

Scope of Services

The scope of services performed for this project was in general accordance with our Proposal No. 20P424, dated November 18, 2020. The scope of services included site reconnaissance, subsurface exploration, field testing, and engineering analysis to determine the infiltration rates of the on-site soils. The infiltration testing was performed in general accordance with the Riverside County – Low Impact Development BMP Design Handbook – Section 2.3 of Appendix A, prepared for the Riverside County Department of Environmental Health (RCDEH), dated December 2013 and the ASTM test method D-3385-03, Standard Test Method for Infiltration Rate of Soils in Field Using Double-Ring Infiltrometer.

Site and Project Description

The subject site is located at the northeast corner of Patterson Avenue and Nance Street in Perris, California. The site is bounded to the north by existing single-family residences (SFRs), and vacant lots, to the west by Patterson Avenue, to the south by Nance Street, and to the east by Nevada Avenue and the March Air Reserve Base. The general location of the site is illustrated on the Site Location Map, included as Plate 1 of this report.

The site consists of twenty-six (26) rectangular to triangular-shaped parcels which total 26± acres in size. The site is mostly vacant and undeveloped, except for a trailer drop-lot in the northwest parcel of the site and a 40± feet by 40± feet concrete slab-on-grade located in the east-central region of the site. Ground surface cover within the trailer drop-lot consists of old/degraded

crushed aggregate base (CAB) pavements with areas of open-graded gravel, and isolated areas of exposed soils with sparse native grass and weed growth. In the remainder of the site the ground surface cover consists of exposed soil with moderate to dense native grass and weed growth. Ground surface cover in the northwest parcel consists of exposed soil. Several trailers were present in the drop-lot at the time of the subsurface investigation.

Detailed topographic information was not available at the time of this report. Based on elevations obtained from Google Earth, and visual observations made at the time of the subsurface investigation, the overall site topography slopes gently downward to the north at a gradient of ½± percent. There is approximately 4 feet of elevation differential across the overall site.

Proposed Development

SCG was provided with a site plan by the client. Based on this site plan, the site will be developed with one (1) new warehouse, 520,598± ft^2 in size, in the west-central area of the site. Dock-high doors will be constructed along portions of the north and south building walls. The building will be surrounded by asphaltic concrete pavements in the parking and drive lanes, Portland cement concrete pavements in the loading dock areas, and limited areas of concrete flatwork and landscape planters throughout. One parcel east of the proposed building, 0.96± acres in size, will be excluded from the proposed development.

The proposed development will include on-site infiltration to dispose of storm water. The infiltration system will consist of a below-grade chamber system located in the southern area of the site. The bottom of the chamber system is expected to be 8± feet below existing site grades.

Concurrent Study

Southern California Geotechnical, Inc. (SCG) concurrently performed a geotechnical investigation at the subject site, referenced above. As part of this investigation, SCG performed a total of seven (7) borings advanced to depths of 15 to 25± feet below the existing site grades. Native alluvium was encountered at the ground surface at all of the boring locations. The near-surface native alluvial soils extending from the ground surface to depths of 1½ to 6½± feet, were classified as younger alluvium. The younger alluvium generally possesses lower densities than the soils classified as older alluvium. The younger alluvium generally consists of medium dense to dense silty sands, sandy silts, and clay sands. At Boring No. B-4 a layer of hard sandy clay was encountered. Older native alluvial soils were encountered beneath the younger native alluvial soils at all of the boring locations. Most of the older alluvial soils encountered at the boring locations consist of medium dense to very dense silty sands, sandy silts, and clayey sands. Older alluvial soils also consisted of stiff to hard sandy clays and varying amounts of silt. Older native alluvial soils extended to at least the maximum depths explored at all of the boring locations.

Subsurface Exploration

Scope of Exploration

The subsurface exploration for the infiltration testing consisted of two (2) backhoe-excavated trenches, extending to a depth of 8± feet below existing site grades. The trenches were logged during excavation by a member of our staff. The approximate locations of the infiltration trenches

(identified as I-1 and I-2) are indicated on the Infiltration Test Location Plan, enclosed as Plate 2 of this report.

Geotechnical Conditions

Native alluvial soils were encountered at the ground surface at both infiltration trench locations, extending to at least the maximum explored depth of 8± feet. The alluvial soils consist mainly of medium dense to dense silty fine sands with trace quantities of medium to coarse sand. In addition, dense clayey fine to medium sands with trace quantities of coarse sand and silt were encountered beneath the silty fine sands, extending to the maximum explored depth of 8± feet below existing site grades. The Trench Logs, which illustrate the conditions encountered at the infiltration test locations, are included with this report.

Groundwater

Groundwater was not encountered at any of the boring or trench locations from either this study or the concurrent study. Based on the lack of any water within the borings, and the moisture contents of the recovered soil samples, the static groundwater table is considered to have existed at a depth in excess of 25± feet below existing site grades, at the time of the subsurface investigation.

Recent water level data was obtained from the California Department of Water Resources Water Data Library website, http://wdl.water.ca.gov/. The nearest monitoring well on record is located 60± feet south of the site. Water level readings within this monitoring well indicate a groundwater level of 72± feet below the ground surface in March 2020.

Infiltration Testing – Double Ring Infiltrometer

The infiltration testing was performed in general accordance with the ASTM test method D-3385-03, Standard Test Method for Infiltration Rate of Soils in Field Using Double-Ring Infiltrometer.

Two stainless steel infiltration rings were used for the infiltration testing. The outer infiltration ring is 2 feet in diameter and 20 inches in height. The inner infiltration ring is 1 foot in diameter and 20 inches in height. At each test location, a trench was excavated to the proposed depth of the infiltration system and the outer ring was driven 3± inches into the soil at the base of each trench. The inner ring was centered inside the outer ring and subsequently driven 3± inches into the soil at the base of the trench. The rings were driven into the soil using a sixteen-pound sledge hammer. The soil surrounding the wall of the infiltration rings was only slightly disturbed during the driving process.

Infiltration Testing Procedure

Infiltration testing was performed at both of the infiltration trench locations. The infiltration testing consisted of filling the inner ring and the annular space (the space between the inner and outer rings) with water, approximately 3 to 4 inches above the soil. To prevent the flow of water from one ring to the other, the water level in both the inner ring and the annular space between the rings was maintained using constant-head float valves. The volume of water that was added to maintain a constant head in the inner ring and the annular space during each time interval was

determined and recorded. A cap was placed over the rings to minimize the evaporation of water during the tests.

The schedule for readings was determined based on the observed soil type at the base of each backhoe-excavated trench. Based on the existing soils at the trench locations, the volumetric measurements were made at 30-minute increments. The water volume measurements are presented on the spreadsheets enclosed with this report. The infiltration rates for each of the timed intervals are also tabulated on these spreadsheets

Infiltration Results

The infiltration rates from the tests are tabulated in inches per hour. In accordance with the typically accepted practice, it is recommended that the most conservative reading from the latter part of the infiltration tests be used as the design infiltration rate. The rates are summarized below:

Infiltration Test No.	Test Depth (feet)	Soil Description	Infiltration Rate (inches/hour)
I-1	8	Dark Brown Clayey fine to medium Sand, trace coarse Sand, trace Silt	0.3
I-2	8	Dark Brown Clayey fine to medium Sand, trace coarse Sand, trace Silt	0.2

Laboratory Testing

Moisture Content

The moisture contents for the recovered soil samples within the borings were determined in accordance with ASTM D-2216 and are expressed as a percentage of the dry weight. These test results are presented on the Trench Logs.

Grain Size Analysis

The grain size distribution of selected soils collected from the base of each infiltration test boring have been determined using a range of wire mesh screens. These tests were performed in general accordance with ASTM D-422 and/or ASTM D-1140. The weight of the portion of the sample retained on each screen is recorded and the percentage finer or coarser of the total weight is calculated. The results of these tests are presented on Plates C-1 through C-2 of this report.

Design Recommendations

Two (2) infiltration tests were performed at the subject site. As noted above, the infiltration rates at these locations vary from 0.2 to 0.3 inches per hour. **Based on the results of the infiltration testing, infiltration is not considered feasible at the proposed depth and location due to dense clayey soils.**

We recommend that a representative from the geotechnical engineer be on-site during the construction of the proposed infiltration system to identify the soil classification at the base of the system. It should be confirmed that the soils at the base of the proposed infiltration system correspond with those presented in this report to ensure that the performance of the system will be consistent with the rates reported herein.

The design of the storm water infiltration systems should be performed by the project civil engineer, in accordance with the City of Perris and/or County of Riverside guidelines. It is recommended that the system be constructed so as to facilitate removal of silt and clay, or other deleterious materials from any water that may enter the system. The presence of such materials would decrease the effective infiltration rates. **It is recommended that the project civil engineer apply an appropriate factor of safety. The infiltration rate recommended above is based on the assumption that only clean water will be introduced to the subsurface profile. Any fines, debris, or organic materials could significantly impact the infiltration rate.** It should be noted that the recommended infiltration rates are based on infiltration testing at two (2) discrete locations and that the overall infiltration rates of the proposed infiltration system could vary considerably.

Construction Considerations

The infiltration rates presented in this report are specific to the tested locations and tested depths. Infiltration rates can be significantly reduced if the soils are exposed to excessive disturbance or compaction during construction. Therefore, the subgrade soils within proposed infiltration system areas should not be over-excavated, undercut or compacted in any significant manner. **It is recommended that a note to this effect be added to the project plans and/or specifications.**

Infiltration versus Permeability

Infiltration rates are based on unsaturated flow. As water is introduced into soils by infiltration, the soils become saturated and the wetting front advances from the unsaturated zone to the saturated zone. Once the soils become saturated, infiltration rates become zero, and water can only move through soils by hydraulic conductivity at a rate determined by pressure head and soil permeability. The infiltration rates presented herein were determined in accordance with the Riverside County guidelines and are considered valid for the time and place of the actual tests. Changes in soil moisture content will affect the infiltration rate. Infiltration rates should be expected to decrease until the soils become saturated. Soil permeability values will then govern groundwater movement. Permeability values may be on the order of 10 to 20 times less than infiltration rates. The system designer should incorporate adequate factors of safety and allow for overflow design into appropriate traditional storm drain systems, which would transport storm water off-site.

Location of Infiltration System

The use of on-site storm water infiltration system carries a risk of creating adverse geotechnical conditions. Increasing the moisture content of the soil can cause the soil to lose internal shear strength and increase its compressibility, resulting in a change in the designed engineering properties. Overlying structures and pavements in the infiltration area could potentially be

damaged due to saturation of subgrade soils. **The proposed infiltration system for this site should be located at least 25 feet away from any structures, including retaining walls.** Even with this provision of locating the infiltration system at least 25 feet from the building, it is possible that infiltrating water into the subsurface soils could have an adverse effect on the proposed or existing structures. It should also be noted that utility trenches which happen to collect storm water can also serve as conduits to transmit storm water toward the structure, depending on the slope of the utility trench. Therefore, consideration should also be given to the proposed locations of underground utilities which may pass near the proposed infiltration system.

General Comments

This report has been prepared as an instrument of service for use by the client in order to aid in the evaluation of this property and to assist the architects and engineers in the design and preparation of the project plans and specifications. This report may be provided to the contractor(s) and other design consultants to disclose information relative to the project. However, this report is not intended to be utilized as a specification in and of itself, without appropriate interpretation by the project architect, structural engineer, and/or civil engineer. The design of the proposed storm water infiltration system is the responsibility of the civil engineer. The role of the geotechnical engineer is limited to determination of infiltration rate only. By using the design infiltration rate contained herein, the civil engineer agrees to indemnify, defend, and hold harmless the geotechnical engineer for all aspects of the design and performance of the proposed storm water infiltration system. The reproduction and distribution of this report must be authorized by the client and Southern California Geotechnical, Inc. Furthermore, any reliance on this report by an unauthorized third party is at such party's sole risk, and we accept no responsibility for damage or loss which may occur.

The analysis of this site was based on a subsurface profile interpolated from limited discrete soil samples. While the materials encountered in the project area are considered to be representative of the total area, some variations should be expected between boring locations and testing depths. If the conditions encountered during construction vary significantly from those detailed herein, we should be contacted immediately to determine if the conditions alter the recommendations contained herein.

This report has been based on assumed or provided characteristics of the proposed development. It is recommended that the owner, client, architect, structural engineer, and civil engineer carefully review these assumptions to ensure that they are consistent with the characteristics of the proposed development. If discrepancies exist, they should be brought to our attention to verify that they do not affect the conclusions and recommendations contained herein. We also recommend that the project plans and specifications be submitted to our office for review to verify that our recommendations have been correctly interpreted. The analysis, conclusions, and recommendations contained within this report have been promulgated in accordance with generally accepted professional geotechnical engineering practice. No other warranty is implied or expressed.

Closure

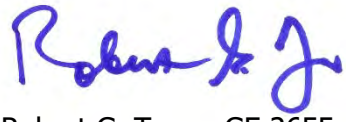
We sincerely appreciate the opportunity to be of service on this project. We look forward to providing additional consulting services during the course of the project. If we may be of further assistance in any manner, please contact our office.

Respectfully Submitted,

SOUTHERN CALIFORNIA GEOTECHNICAL, INC.



Ryan Bremer
Staff Geologist

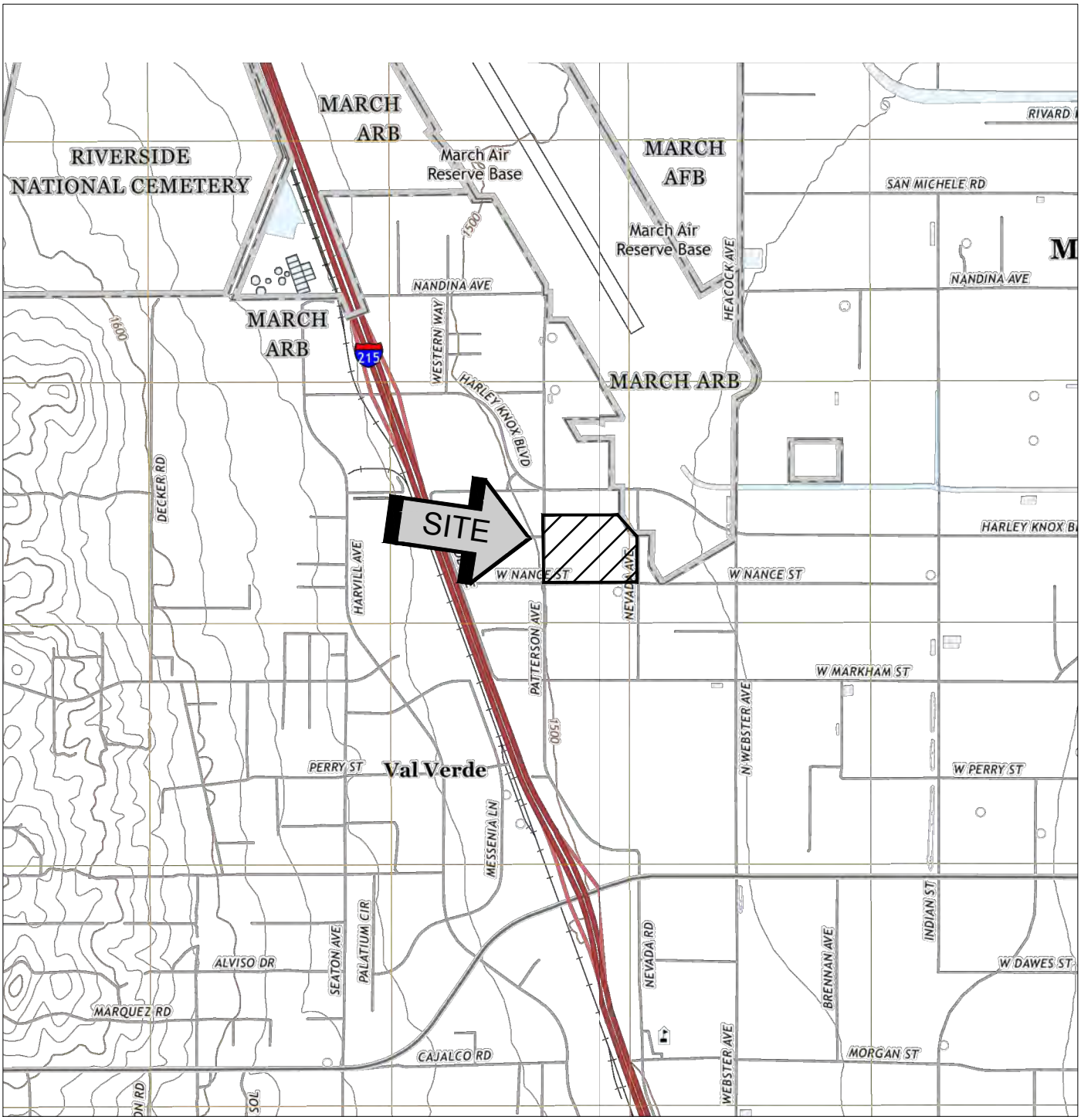




Robert G. Trazo, GE 2655
Principal Engineer

Distribution: (1) Addressee

Enclosures: Plate 1 - Site Location Map
Plate 2 - Infiltration Test Location Plan
Trench Logs & Trench Log Legend (4 pages)
Infiltration Test Results Spreadsheets (2 pages)
Grain Size Distribution Results (2 pages)



SOURCE: USGS TOPOGRAPHIC MAPS OF THE STEELE PEAK AND PERRIS QUADRANGLES, RIVERSIDE COUNTY, CALIFORNIA, 2015

SITE LOCATION MAP

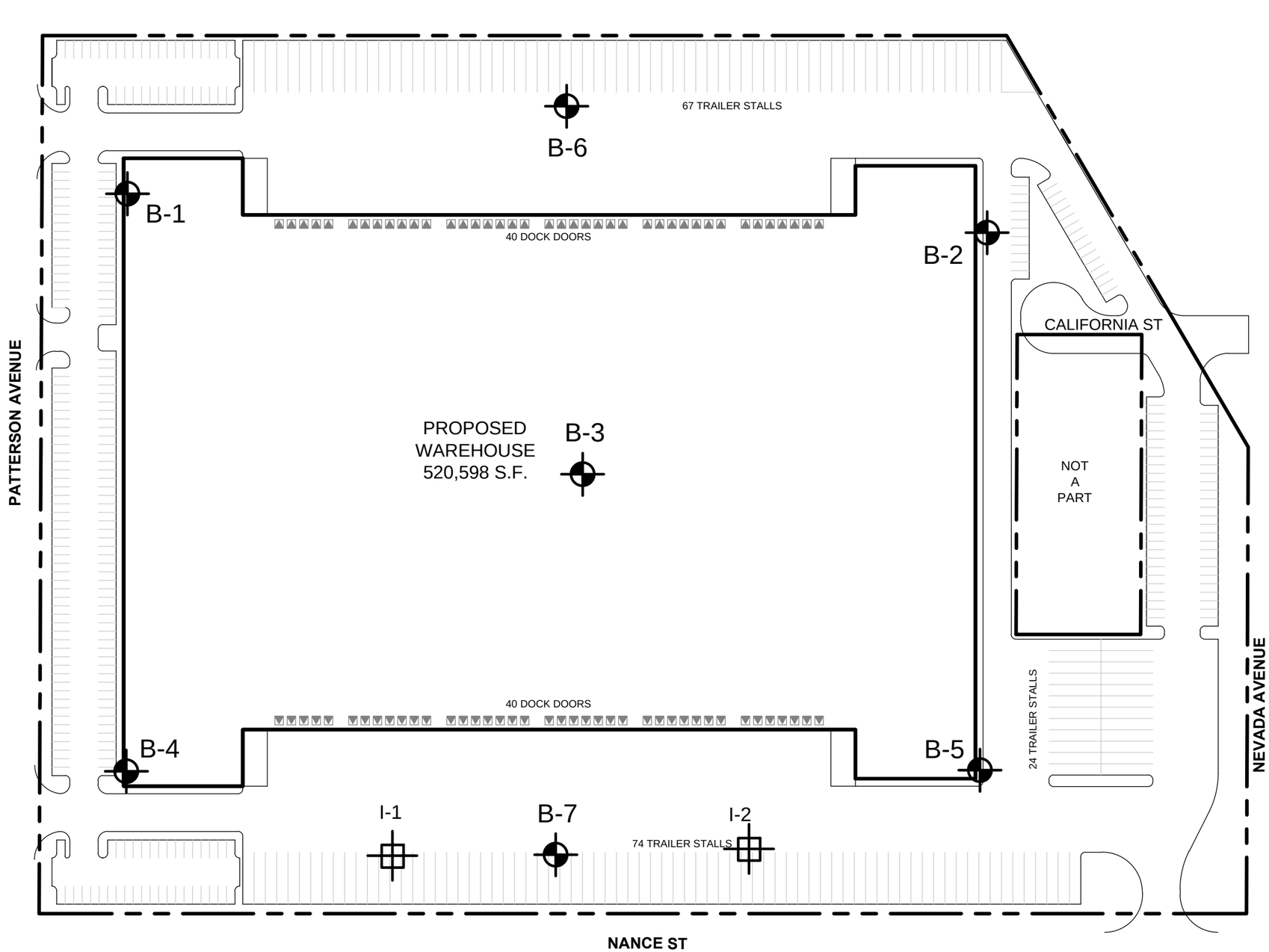
PROPOSED WAREHOUSE

PERRIS, CALIFORNIA

SCALE: 1" = 2000'	
DRAWN: JAH CHKD: RF	
SCG PROJECT 20G239-2	
PLATE 1	

SoCalGeo

SOUTHERN CALIFORNIA GEOTECHNICAL



NORTH
SoCalGeo

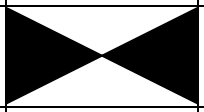
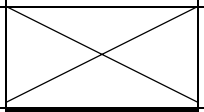
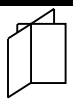
GEOTECHNICAL LEGEND

- APPROXIMATE INFILTRATION TEST LOCATION
- APPROXIMATE BORING LOCATION (SCG PROJECT NO. 20G239-1)

NOTE: SITE PLAN PROVIDED BY DUKE REALTY.

INFILTRATION TEST LOCATION PLAN
PROPOSED WAREHOUSE
PERRIS, CALIFORNIA
SCALE: 1" = 120'
DRAWN: JAH CHKD: RF
SCG PROJECT 20G239-2
PLATE 2

TRENCH LOG LEGEND

SAMPLE TYPE	GRAPHICAL SYMBOL	SAMPLE DESCRIPTION
AUGER		SAMPLE COLLECTED FROM AUGER CUTTINGS, NO FIELD MEASUREMENT OF SOIL STRENGTH. (DISTURBED)
CORE		ROCK CORE SAMPLE: TYPICALLY TAKEN WITH A DIAMOND-TIPPED CORE BARREL. TYPICALLY USED ONLY IN HIGHLY CONSOLIDATED BEDROCK.
GRAB		SOIL SAMPLE TAKEN WITH NO SPECIALIZED EQUIPMENT, SUCH AS FROM A STOCKPILE OR THE GROUND SURFACE. (DISTURBED)
CS		CALIFORNIA SAMPLER: 2-1/2 INCH I.D. SPLIT BARREL SAMPLER, LINED WITH 1-INCH HIGH BRASS RINGS. DRIVEN WITH SPT HAMMER. (RELATIVELY UNDISTURBED)
NSR		NO RECOVERY: THE SAMPLING ATTEMPT DID NOT RESULT IN RECOVERY OF ANY SIGNIFICANT SOIL OR ROCK MATERIAL.
SPT		STANDARD PENETRATION TEST: SAMPLER IS A 1.4 INCH INSIDE DIAMETER SPLIT BARREL, DRIVEN 18 INCHES WITH THE SPT HAMMER. (DISTURBED)
SH		SHELBY TUBE: TAKEN WITH A THIN WALL SAMPLE TUBE, PUSHED INTO THE SOIL AND THEN EXTRACTED. (UNDISTURBED)
VANE		VANE SHEAR TEST: SOIL STRENGTH OBTAINED USING A 4 BLADED SHEAR DEVICE. TYPICALLY USED IN SOFT CLAYS-NO SAMPLE RECOVERED.

COLUMN DESCRIPTIONS

DEPTH: Distance in feet below the ground surface.

SAMPLE: Sample Type as depicted above.

BLOW COUNT: Number of blows required to advance the sampler 12 inches using a 140 lb hammer with a 30-inch drop. 50/3" indicates penetration refusal (>50 blows) at 3 inches. WH indicates that the weight of the hammer was sufficient to push the sampler 6 inches or more.

POCKET PEN.: Approximate shear strength of a cohesive soil sample as measured by pocket penetrometer.

GRAPHIC LOG: Graphic Soil Symbol as depicted on the following page.

DRY DENSITY: Dry density of an undisturbed or relatively undisturbed sample in lbs/ft^3.

MOISTURE CONTENT: Moisture content of a soil sample, expressed as a percentage of the dry weight.

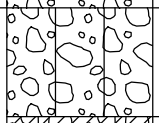
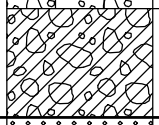
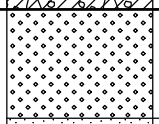
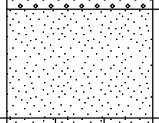
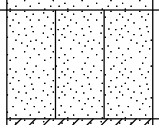
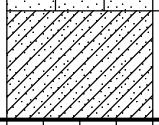
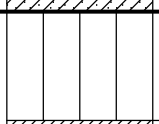
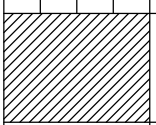
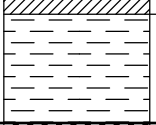
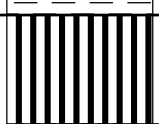
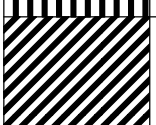
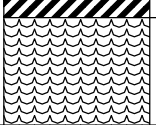
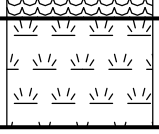
LIQUID LIMIT: The moisture content above which a soil behaves as a liquid.

PLASTIC LIMIT: The moisture content above which a soil behaves as a plastic.

PASSING #200 SIEVE: The percentage of the sample finer than the #200 standard sieve.

UNCONFINED SHEAR: The shear strength of a cohesive soil sample, as measured in the unconfined state.

SOIL CLASSIFICATION CHART

MAJOR DIVISIONS			SYMBOLS		TYPICAL DESCRIPTIONS
			GRAPH	LETTER	
COARSE GRAINED SOILS MORE THAN 50% OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE	GRAVEL AND GRAVELLY SOILS MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	CLEAN GRAVELS (LITTLE OR NO FINES)		GW	WELL-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES
				GP	POORLY-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES
		GRAVELS WITH FINES (APPRECIABLE AMOUNT OF FINES)		GM	SILTY GRAVELS, GRAVEL - SAND - SILT MIXTURES
				GC	CLAYEY GRAVELS, GRAVEL - SAND - CLAY MIXTURES
	SAND AND SANDY SOILS MORE THAN 50% OF COARSE FRACTION PASSING ON NO. 4 SIEVE	CLEAN SANDS (LITTLE OR NO FINES)		SW	WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
				SP	POORLY-GRADED SANDS, GRAVELLY SAND, LITTLE OR NO FINES
		SANDS WITH FINES (APPRECIABLE AMOUNT OF FINES)		SM	SILTY SANDS, SAND - SILT MIXTURES
				SC	CLAYEY SANDS, SAND - CLAY MIXTURES
FINE GRAINED SOILS MORE THAN 50% OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE	SILTS AND CLAYS	LIQUID LIMIT LESS THAN 50		ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
				CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
				OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
	SILTS AND CLAYS	LIQUID LIMIT GREATER THAN 50		MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SAND OR SILTY SOILS
				CH	INORGANIC CLAYS OF HIGH PLASTICITY
				OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS
HIGHLY ORGANIC SOILS				PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS

NOTE: DUAL SYMBOLS ARE USED TO INDICATE BORDERLINE SOIL CLASSIFICATIONS

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

TRENCH NO. I-1

JOB NO.: 20G239-2
PROJECT: Proposed Warehouse
LOCATION: Perris, California

DRILLING DATE: 12/4/20
DRILLING METHOD: Backhoe
LOGGED BY: Luis Arriaga

WATER DEPTH: ---
CAVE DEPTH: ---
READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
					ALLUVIUM: Dark Brown Silty fine Sand, trace medium to coarse Sand, medium dense-moist							
5					Dark Brown Clayey fine to medium Sand, trace coarse Sand, trace Silt, dense-damp		7					
					Trench Terminated at 8'							

TBL 20G239-2.GPJ SOCALGEO.GDT 12/24/20

TEST BORING LOG **PLATE B-2**

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

TRENCH NO. I-2

JOB NO.: 20G239-2
PROJECT: Proposed Warehouse
LOCATION: Perris, California

DRILLING DATE: 12/4/20
DRILLING METHOD: Backhoe
LOGGED BY: Luis Arriaga

WATER DEPTH: ---
CAVE DEPTH: ---
READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
					ALLUVIUM: Dark Brown Silty fine Sand, trace medium to coarse Sand, dense-moist							
5					Dark Brown Clayey fine to medium Sand, trace Silt, trace coarse Sand, dense-damp		8					
					Trench Terminated at 8'							

TBL 20G239-2.GPJ SOCALGEO.GDT 12/24/20

TEST BORING LOG **PLATE B-1**

INFILTRATION CALCULATIONS

Project Name	Proposed Warehouse
Project Location	Perris, California
Project Number	20G239-2
Engineer	Luis Arriaga

Infiltration Test No: I-1

Constants

	Diameter (ft)	Area (ft^2)	Area (cm^2)
Inner	1	0.79	730
Anlr. Spac	2	2.36	2189

*Note: The infiltration rate was calculated based on current time interval

Test Interval		Time (hr)	Interval **Elapsed** (min)	Flow Readings: Inner Ring (ml)	Flow Readings: Ring Flow (cm^3)	Flow Readings: Annular Ring (ml)	Flow Readings: Space Flow (cm^3)	Infiltration Rates: Inner Ring* (cm/hr)	Infiltration Rates: Annular Space* (cm/hr)	Infiltration Rates: Inner Ring* (in/hr)	Infiltration Rates: Annular Space* (in/hr)
1	Initial	1:28 PM	10	0	1500	0	5400	12.33	14.80	4.86	5.83
	Final	1:38 PM	**10**	1500		5400					
2	Initial	2:00 PM	30	0	600	0	5800	1.64	5.30	0.65	2.09
	Final	2:30 PM	**62**	600		5800					
3	Initial	2:31 PM	30	0	450	0	4900	1.23	4.48	0.49	1.76
	Final	3:01 PM	**93**	450		4900					
4	Initial	3:02 PM	30	0	350	0	4800	0.96	4.39	0.38	1.73
	Final	3:32 PM	**124**	350		4800					
5	Initial	3:33 PM	30	0	300	0	4200	0.82	3.84	0.32	1.51
	Final	4:03 PM	**155**	300		4200					
6	Initial	4:05 PM	30	0	250	0	4000	0.69	3.65	0.27	1.44
	Final	4:35 PM	**187**	250		4000					
7	Initial	4:37 PM	30	0	250	0	4000	0.69	3.65	0.27	1.44
	Final	5:07 PM	**219**	250		4000					

INFILTRATION CALCULATIONS

Project Name	Proposed Warehouse
Project Location	Perris, California
Project Number	20G239-2
Engineer	Luis Arriaga

Infiltration Test No: I-2

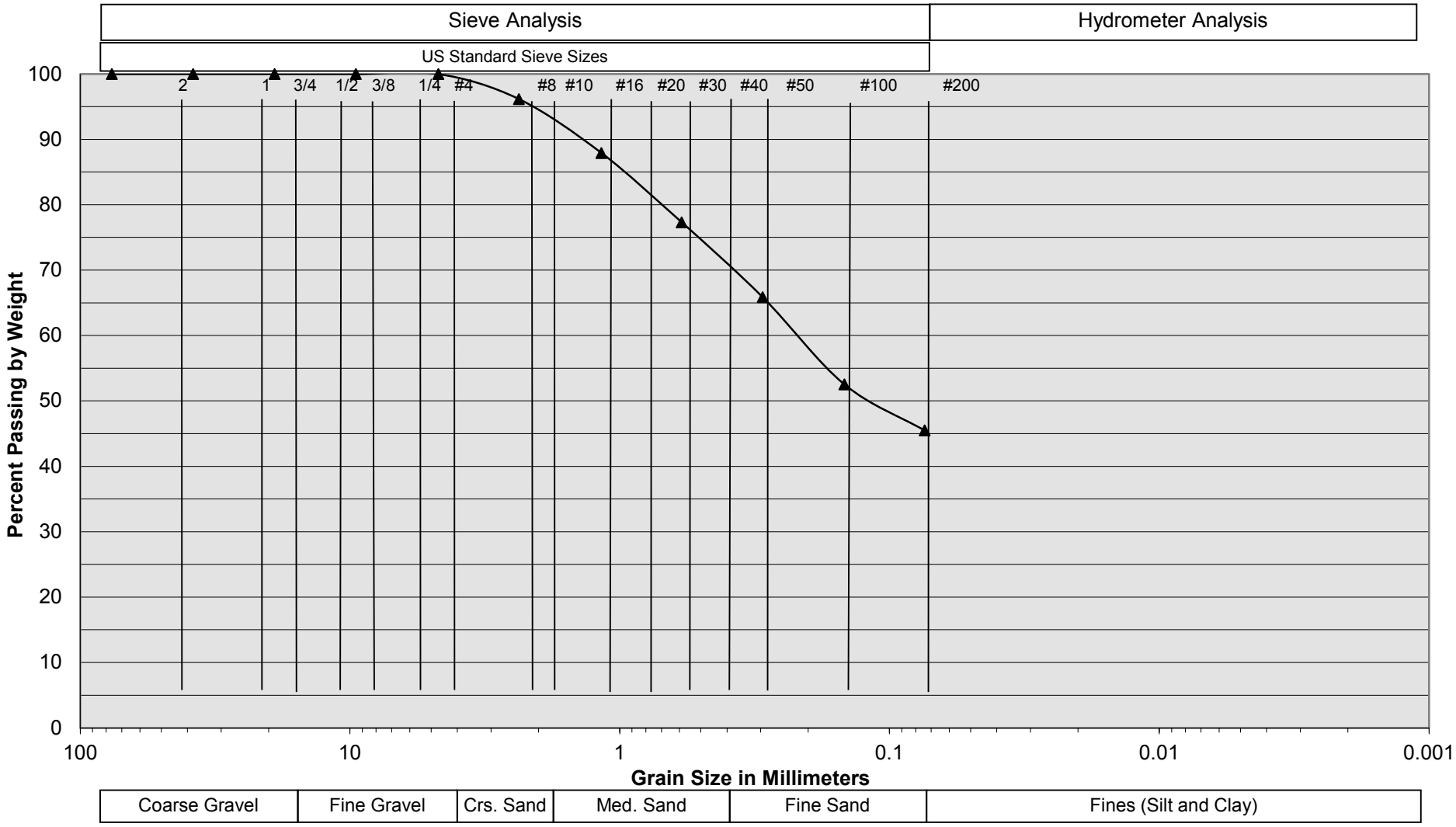
Constants

	Diameter (ft)	Area (ft^2)	Area (cm^2)
Inner	1	0.79	730
Anlr. Spac	2	2.36	2189

*Note: The infiltration rate was calculated based on current time interval

Test Interval		Time (hr)	Interval **Elapsed** (min)	Flow Readings: Inner Ring (ml)	Flow Readings: Ring Flow (cm^3)	Flow Readings: Annular Ring (ml)	Flow Readings: Space Flow (cm^3)	Infiltration Rates: Inner Ring* (cm/hr)	Infiltration Rates: Annular Space* (cm/hr)	Infiltration Rates: Inner Ring* (in/hr)	Infiltration Rates: Annular Space* (in/hr)
1	Initial	9:45 AM	30	0	50	0	0	0.14	0.00	0.05	0.00
	Final	10:15 AM	**30**	50		0					
2	Initial	10:18 AM	30	0	250	0	0	0.69	0.00	0.27	0.00
	Final	10:48 AM	**63**	250		0					
3	Initial	10:49 AM	30	0	100	0	100	0.27	0.09	0.11	0.04
	Final	11:19 AM	**94**	100		100					
4	Initial	11:20 AM	30	0	150	0	400	0.41	0.37	0.16	0.14
	Final	11:50 AM	**125**	150		400					
5	Initial	11:51 AM	30	0	150	0	500	0.41	0.46	0.16	0.18
	Final	12:21 PM	**156**	150		500					
6	Initial	12:22 PM	30	0	150	0	300	0.41	0.27	0.16	0.11
	Final	12:52 PM	**187**	150		300					

Grain Size Distribution

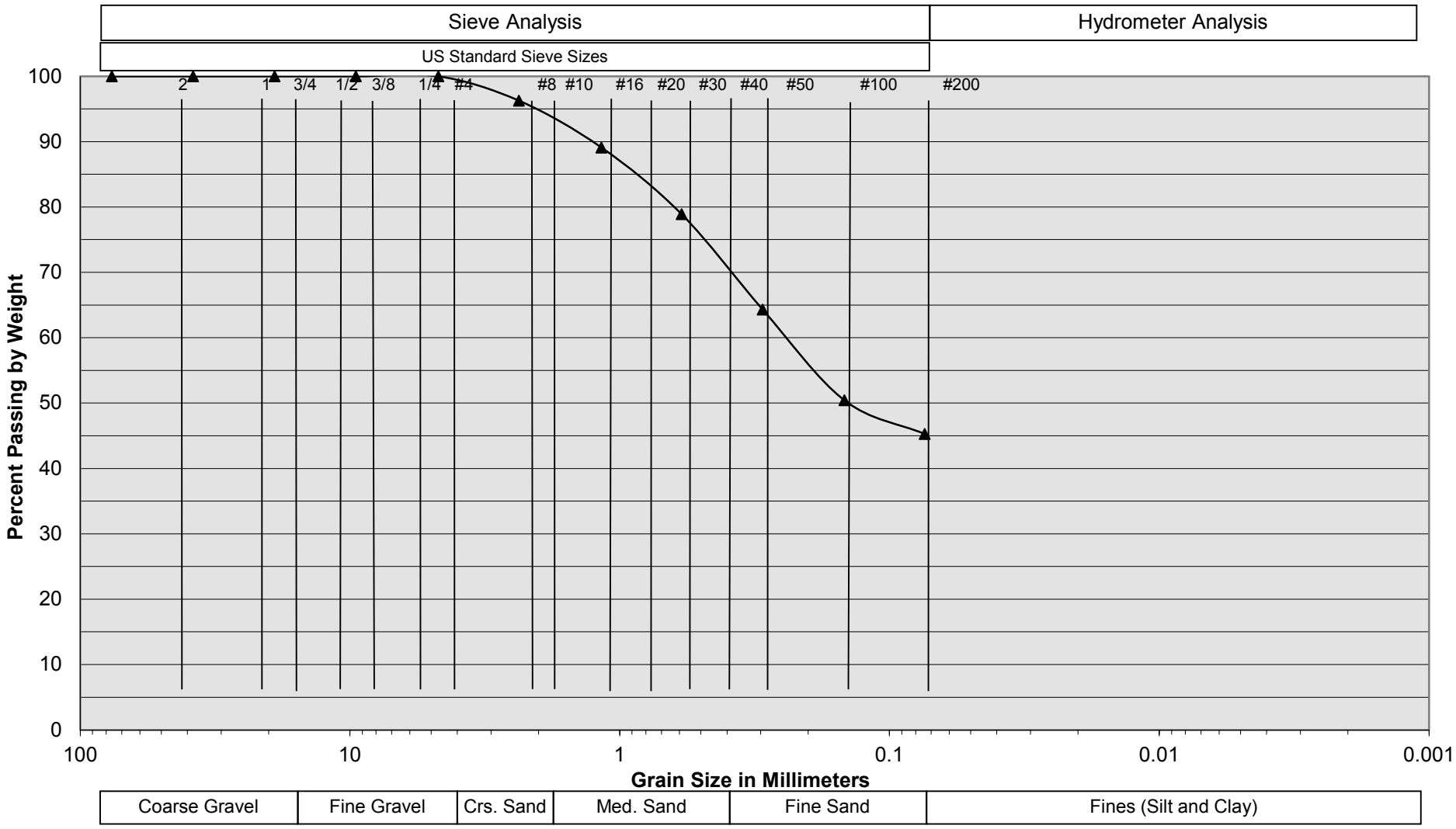


Sample Description	I-1 @ 8'
Soil Classification	Dark Brown Clayey fine to medium Sand, trace coarse Sand, trace Silt

Proposed Warehouse
Perris, CA
Project No. 20G239-2
PLATE C-1

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

Grain Size Distribution



Sample Description	I-2 @ 8'
Soil Classification	Dark Brown Clayey fine to medium Sand, trace coarse Sand, trace Silt

Proposed Warehouse
Perris, CA
Project No. 20G239-2
PLATE C-2

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

GEOTECHNICAL INVESTIGATION
PROPOSED WAREHOUSE

NEC Patterson Avenue and Nance Street
Perris, California
for
Duke Realty



December 22, 2020
(Report updated August 6, 2021 and December 13, 2021)

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

Duke Realty
200 Spectrum Center Drive, Suite 1600
Irvine, California 92618

Attention: Mr. D.J. Arellano, P.E.
Director, Development Services

Project No.: **20G239-3R**

Subject: **Geotechnical Investigation**
Proposed Warehouse
NEC Patterson Avenue and Nance Street
Perris, California

Gentlemen:

In accordance with your request, we have conducted a geotechnical investigation at the subject site. We are pleased to present this report summarizing the conclusions and recommendations developed from our investigation.

We sincerely appreciate the opportunity to be of service on this project. We look forward to providing additional consulting services during the course of the project. If we may be of further assistance in any manner, please contact our office.

Respectfully Submitted,

SOUTHERN CALIFORNIA GEOTECHNICAL, INC.

Ricardo Frias, RCE 91772
Staff Engineer

REGISTERED PROFESSIONAL ENGINEER
RICARDO FRIAS
No. 91772
CIVIL
STATE OF CALIFORNIA

Robert G. Trazo, GE 2655
Principal Engineer

REGISTERED PROFESSIONAL ENGINEER
ROBERT TRAZO
No. 2655
GEOTECHNICAL
STATE OF CALIFORNIA

Distribution: (1) Addressee

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D Grading Guide Specifications
E Seismic Design Parameters
F Excerpts from Previous Report

1.0 EXECUTIVE SUMMARY

Presented below is a brief summary of the conclusions and recommendations of this investigation. Since this summary is not all inclusive, it should be read in complete context with the entire report.

Geotechnical Design Considerations

- Undocumented fill soils were encountered at one of the borings, extending to a depth of 4½± feet. Additional soils identified as possible fill were encountered at one of the borings, extending to a depth of 6½± feet. Younger alluvial soils were encountered at all of the boring locations, with the exception of Boring No. B-9, extending from the ground surface to depths of 1½ to 6½± feet.
- The near-surface alluvial soils possess varying strengths and densities. In addition, some of the younger alluvial soils possess moderate compressibility and a minor potential for hydro-collapse. These soils, in their present condition, are not considered suitable for support of the foundation loads of the new structures.
- Remedial grading will be necessary to remove a portion of the near-surface alluvial soils and replace them as compacted structural fill. Generally, the existing soils may be reused as structural fill.

Site Preparation

- Initial site stripping should include removal of any surficial vegetation from the site. Stripping should include any weeds, grasses, and any organic topsoil.
- Demolition of the existing structures, pavements and any associated improvements will be necessary to facilitate the construction of the proposed development. Debris resultant from demolition should be disposed of off-site. Alternatively, concrete and asphalt debris may be pulverized to a maximum 2-inch particle size, well mixed with the on-site soils, and incorporated into new structural fills. It may also be crushed and made into crushed miscellaneous base (CMB), if desired.
- We recommend that remedial grading be performed within the proposed building area in order to remove all of the undocumented fill soils and a portion of the near-surface alluvium. The soils present within the proposed building area should be overexcavated to a depth of at least 4 feet below existing grade and to a depth of at least 4 feet below proposed building pad subgrade elevation. The proposed foundation influence zones should also be overexcavated to a depth of at least 3 feet below proposed foundation bearing grade. Additional overexcavation may be necessary in areas where loose or otherwise unsuitable soils are encountered at the base off the overexcavation.
- After overexcavation has been completed, the resulting subgrade soils should be evaluated by the geotechnical engineer to identify any additional soils that should be overexcavated. The resulting soils should be scarified and moisture conditioned to 2 to 4 percent above the optimum moisture content, to a depth of at least 12 inches. The overexcavation subgrade soils should then be recompacted under the observation of the geotechnical engineer. The previously excavated soils may then be replaced as compacted structural fill.
- The new pavement and flatwork subgrade soils are recommended to be scarified to a depth of 12± inches, thoroughly moisture conditioned and recompacted to at least 90 percent of the ASTM D-1557 maximum dry density.

Building Foundations

- Conventional shallow foundations, supported in newly placed compacted fill.
- 2,500 lbs/ft^2 maximum allowable soil bearing pressure.
- Reinforcement consisting of at least six (6) No. 5 rebars (3 top and 3 bottom), due to the presence of potentially expansive soils Additional reinforcement may be necessary for structural considerations.

Building Floor Slab

- Conventional Slab-on-grade, 6 inches thick.
- Modulus of Subgrade Reaction: 100 psi/in.
- Minimum slab reinforcement: No. 3 bars at 18 inches on center in both directions due to the presence of medium expansive soils. The actual floor slab reinforcement should be determined by the structural engineer, based on the imposed loading.

Pavements

ASPHALT PAVEMENTS (R = 30)					
Materials	**Thickness (inches)**				
	Auto Parking and Auto Drive Lanes (TI = 4.0 to 5.0)	Truck Traffic			
		TI = 6.0	TI = 7.0	TI = 8.0	TI = 9.0
Asphalt Concrete	3	3½	4	5	5½
Aggregate Base	6	8	10	11	13
Compacted Subgrade	12	12	12	12	12

PORTLAND CEMENT CONCRETE PAVEMENTS (R = 30)				
Materials	**Thickness (inches)**			
	Autos and Light Truck Traffic (TI = 6.0)	Truck Traffic		
		TI = 7.0	TI = 8.0	TI = 9.0
PCC	5	5½	6½	8
Compacted Subgrade (95% minimum compaction)	12	12	12	12

2.0 SCOPE OF SERVICES

The scope of services performed for this project was in accordance with our Change Order Nos. 20G239-CO and 20G239-CO2, dated July 6, 2021 and November 24, 2021, respectively. The scope of services included a visual site reconnaissance, subsurface exploration, field and laboratory testing, and geotechnical engineering analysis to provide criteria for preparing the design of the building foundations, building floor slab, and parking lot pavements along with site preparation recommendations and construction considerations for the proposed development. The evaluation of the environmental aspects of this site was beyond the scope of services for this geotechnical investigation.

3.0 SITE AND PROJECT DESCRIPTION

3.1 Site Conditions

The subject site is located at the northeast corner of Nance Street and Patterson Avenue in Perris, California, and extends 300± feet south of Nance Street. The site is bounded to the north by existing single-family residences (SFRs), and vacant land, to the west by Patterson Avenue, to the south by an existing commercial/industrial building, and to the east by Nevada Avenue and the March Air Reserve Base. The general location of the site is illustrated on the Site Location Map, included as Plate 1 of this report.

The site consists of several rectangular to triangular-shaped parcels which total 33.71± acres in size. The site is mostly vacant and undeveloped, except a trailer drop lot in the northwesternmost parcel and a 40± feet by 40± feet concrete slab-on-grade located in the east-central region of the site. Ground surface cover within the trailer drop-lot consists of old/degraded crushed aggregate base (CAB) pavements with areas of open-graded gravel, and isolated areas of exposed soils with sparse native grass and weed growth. In the remainder of the site, ground surface cover consists of exposed soil with moderate to dense native grass and weed growth.

Detailed topographic information was not available at the time of this report. Based on elevations obtained from Google Earth, and visual observations made at the time of the subsurface investigation, the overall site topography slopes gently downward to the north at a gradient of ½± percent. There is approximately 4± feet of elevation differential across the overall site.

3.2 Proposed Development

SCG was provided with a site plan by the client. Based on this site plan, the site will be developed with one (1) building, 769,668± ft^2 in size, in the central area of the site. Dock-high doors will be constructed along portions of the eastern and western building walls. Additional parking areas will surround the building. The building will be surrounded by asphaltic concrete pavements in the parking and drive lanes, Portland cement concrete pavements in the loading dock areas, and limited areas of concrete flatwork and landscape planters throughout.

Detailed structural information has not been provided. It is assumed that the new building will be a single-story structure of tilt-up concrete construction, typically supported on conventional shallow foundation systems with concrete slab-on-grade floors. Based on the assumed construction, maximum column and wall loads are expected to be on the order of 100 kips and 4 to 7 kips per linear foot, respectively.

No significant amounts of below-grade construction, such as basements or crawl spaces, are expected to be included in the proposed development. Based on the assumed topography, cuts and fills of up to 2± feet are expected to be necessary to achieve the proposed site grades.

3.3 Previous Study

Southern California Geotechnical, Inc. (SCG) previously performed a geotechnical investigation for the subject sites. The results of this study is presented in the referenced report:

> Geotechnical Investigation, Proposed Warehouse, NEC Patterson Avenue and Nance Street, Perris, California, prepared by Southern California Geotechnical, Inc. (SCG) for Duke Realty, SCG Project No. 20G239-1, dated December 22, 2020.

As part of this investigation, a total of seven (7) borings, advanced to depths of 10 to 25± feet below currently existing site grades. Native alluvium was encountered at the ground surface at all of boring locations, extending to the maximum explored depth of 25± feet below existing site grades. The near-surface native alluvial soils extending from the ground surface to depths of 1½ to 6½± feet, were classified as younger alluvium. The younger alluvium generally possesses lower densities than the soils classified as older alluvium. The younger alluvium generally consists of medium dense to dense silty sands, sandy silts, and clayey sands. At Boring No. B-4 a layer of hard sandy clay was encountered. Older native alluvial soils were encountered beneath the younger native alluvial soils at all of the boring locations. The soils classified as older alluvium generally possess higher densities than the younger alluvial soils, many samples were observed to be weakly to moderately cemented. Most of the older alluvial soils encountered at the boring locations consist of medium dense to very dense silty sands, sandy silts, and clayey sands. Older alluvial soils also consisted of stiff to hard sandy clays and varying amounts of silt. Older native alluvial soils extended to at least the maximum depths explored at all of the boring locations. Groundwater was not encountered at any of the boring locations.

4.0 SUBSURFACE EXPLORATION

4.1 Scope of Exploration/Sampling Methods

The subsurface exploration conducted for this project consisted of three (3) borings advanced to depths of 20 to 25± feet below the existing site grades. Including the subsurface exploration discussed in the referenced report, a total of ten (10) borings were advanced to depths of 10 to 30± feet below existing site grades. All of the borings were logged during drilling by a member of our staff.

All of the borings were advanced with hollow-stem augers by a conventional truck-mounted drilling rig. Representative bulk and relatively undisturbed soil samples were taken during drilling. Relatively undisturbed soil samples were taken with a split barrel "California Sampler" containing a series of one inch long, 2.416± inch diameter brass rings. This sampling method is described in ASTM Test Method D-3550. Samples were also taken using a 1.4± inch inside diameter split spoon sampler, in general accordance with ASTM D-1586. Both of these samplers are driven into the ground with successive blows of a 140-pound weight falling 30 inches. The blow counts obtained during driving are recorded for further analysis. Bulk samples were collected in plastic bags to retain their original moisture content. The relatively undisturbed ring samples were placed in molded plastic sleeves that were then sealed and transported to our laboratory.

The approximate locations of the borings are indicated on the Boring Location Plan, included as Plate 2 in Appendix A of this report. The Boring Logs, which illustrate the conditions encountered at the boring locations, as well as the results of some of the laboratory testing, are included in Appendix B.

4.2 Geotechnical Conditions

Possible Fill

Possible fill soils were encountered at Boring No. B-10, extending to depths of 6½± feet below existing site grades. The possible fill soils consist of loose to medium dense silty fine to medium sands with trace quantities of clay. The possible fill soils possessed a disturbed appearance, was surrounded by surficial trash debris, and possessed uncharacteristic blow counts. Historic aerials indicate that the area drilled was disturbed in 2009 during the development of the northern parcel.

Artificial Fill

Artificial fill soils were encountered at the ground surface of Boring No. B-8, extending to a depth of 4½± feet below existing site grades. The artificial fill soils consisted of medium dense silty fine sands with trace quantities of clay and medium to coarse sands. The fill soils

possessed a disturbed appearance. Review of historic aerial photographs indicate that a building was present within this portion of the site in 2014.

Older Alluvium

Older alluvial soils were encountered at the ground surface at Boring No. B-9, and beneath the artificial fill soils and possible fill soils at all of the boring locations, extending to at least the maximum depth explored of 25± feet below existing site grades. The older alluvial soils generally consist of medium dense to dense silty fine sands, medium dense to very dense fine to medium sands, and very dense silty fine to coarse sands. Variable clay and calcareous nodule/veining were encountered within the older alluvial strata.

Groundwater

Groundwater was not encountered at any of the boring locations. Based on the lack of any water within the borings, and the moisture contents of the recovered soil samples, the static groundwater table is considered to have existed at a depth in excess of 25± feet below existing site grades, at the time of the subsurface investigation.

Recent water level data was obtained from the California Department of Water Resources Water Data Library website, http://wdl.water.ca.gov/. The nearest monitoring well on record is located 60± feet south of the site. Water level readings within this monitoring well indicate a groundwater level of 72± feet below the ground surface in March 2020.

5.0 LABORATORY TESTING

The soil samples recovered from the subsurface exploration were returned to our laboratory for further testing to determine selected physical and engineering properties of the soils. The tests are briefly discussed below. It should be noted that the test results are specific to the actual samples tested, and variations could be expected at other locations and depths.

Classification

All recovered soil samples were classified using the Unified Soil Classification System (USCS), in accordance with ASTM D-2488. Field identifications were then supplemented with additional visual classifications and/or by laboratory testing. The USCS classifications are shown on the Boring Logs and are periodically referenced throughout this report.

Density and Moisture Content

The density has been determined for selected relatively undisturbed ring samples. These densities were determined in general accordance with the method presented in ASTM D-2937. The results are recorded as dry unit weight in pounds per cubic foot. The moisture contents are determined in accordance with ASTM D-2216, and are expressed as a percentage of the dry weight. These test results are presented on the Boring Logs.

Consolidation

Selected soil samples have been tested to determine their consolidation and collapse potential, in accordance with ASTM D-2435. The testing apparatus is designed to accept either natural or remolded samples in a one-inch high ring, approximately 2.416 inches in diameter. Each sample is then loaded incrementally in a geometric progression and the resulting deflection is recorded at selected time intervals. Porous stones are in contact with the top and bottom of the sample to permit the addition or release of pore water. The samples are typically inundated with water at an intermediate load to determine their potential for collapse or heave. The results of the consolidation testing are plotted on Plates C-1 through C-3 in Appendix C of this report.

Maximum Dry Density and Optimum Moisture Content

A representative bulk sample from our previous study has been tested for its maximum dry density and optimum moisture content. The results have been obtained using the Modified Proctor procedure, per ASTM D-1557, and are included in Appendix F of this report. These tests are generally used to with compare the dry densities of undisturbed field samples, and for later compaction testing. Additional testing of other soil types or soil mixes may be necessary at a later date.

Expansion Index

The expansion potential of the on-site soils was determined in general accordance with ASTM D-4829. The testing apparatus is designed to accept a 4-inch diameter, 1-in high, remolded sample. The sample is initially remolded to 50± 1 percent saturation and then loaded with a

surcharge equivalent to 144 pounds per square foot. The sample is then inundated with water, and allowed to swell against the surcharge. The resultant swell or consolidation is recorded after a 24-hour period. The results of the EI testing are as follows:

Sample Identification	Expansion Index	Expansive Potential
B-4 @ 0 to 5 feet (Previous Study)	53	Medium

Soluble Sulfates

A representative sample of the near-surface soils has been submitted to a subcontracted analytical laboratory for determination of soluble sulfate content. Soluble sulfates are naturally present in soils, and if the concentration is high enough, can result in degradation of concrete which comes into contact with these soils. The results of the soluble sulfate testing are presented below, and are discussed further in a subsequent section of this report.

Sample Identification	Soluble Sulfates (%)	Sulfate Classification
B-2 @ 0 to 5 feet (Previous Study)	0.005	Not Applicable (S0)
B-10 @ 0 to 5 feet	0.003	Not Applicable (S0)

Corrosivity Testing

A representative sample of the near-surface soils has been submitted to a subcontracted corrosion engineering laboratory to identify potentially corrosive characteristics with respect to common construction materials. The corrosivity testing included a determination of the electrical resistivity, pH, and chloride and nitrate concentrations of the soils, as well as other tests. The results of some of these tests are presented below.

Sample Identification	Saturated Resistivity (ohm-cm)	pH	Chlorides (mg/kg)	Nitrates (mg/kg)
B-2 @ 0 to 5 feet (Previous Study)	2,280	7.8	42	42
B-10 @ 0 to 5 feet	3,640	7.5	14	23

6.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the results of our review, field exploration, laboratory testing and geotechnical analysis, the proposed development is considered feasible from a geotechnical standpoint. The recommendations contained in this report should be taken into the design, construction, and grading considerations.

The recommendations are contingent upon all grading and foundation construction activities being monitored by the geotechnical engineer of record. The recommendations are provided with the assumption that an adequate program of client consultation, construction monitoring, and testing will be performed during the final design and construction phases to verify compliance with these recommendations. Maintaining Southern California Geotechnical, Inc., (SCG) as the geotechnical consultant from the beginning to the end of the project will provide continuity of services. The geotechnical engineering firm providing testing and observation services shall assume the responsibility of Geotechnical Engineer of Record.

The Grading Guide Specifications, included as Appendix D, should be considered part of this report, and should be incorporated into the project specifications. The contractor and/or owner of the development should bring to the attention of the geotechnical engineer any conditions that differ from those stated in this report, or which may be detrimental for the development.

6.1 Seismic Design Considerations

The subject site is located in an area which is subject to strong ground motions due to earthquakes. The performance of a site-specific seismic hazards analysis was beyond the scope of this investigation. However, numerous faults capable of producing significant ground motions are located near the subject site. Due to economic considerations, it is not generally considered reasonable to design a structure that is not susceptible to earthquake damage. Therefore, significant damage to structures may be unavoidable during large earthquakes. The proposed structures should, however, be designed to resist structural collapse and thereby provide reasonable protection from serious injury, catastrophic property damage and loss of life.

Faulting and Seismicity

Research of available maps indicates that the subject site is not located within an Alquist-Priolo Earthquake Fault Zone. Furthermore, SCG did not identify any evidence of faulting during the geotechnical investigation. Therefore, the possibility of significant fault rupture on the site is considered to be low.

The potential for other geologic hazards such as seismically induced settlement, lateral spreading, tsunamis, inundation, seiches, flooding, and subsidence affecting the site is considered low.

Seismic Design Parameters

The 2019 California Building Code (CBC) provides procedures for earthquake resistant structural design that include considerations for on-site soil conditions, occupancy, and the configuration of the structure including the structural system and height. The seismic design parameters presented below are based on the soil profile and the proximity of known faults with respect to the subject site.

Based on standards in place at the time of this report, the proposed development is expected to be designed in accordance with the requirements of the 2019 edition of the California Building Code (CBC), which was adopted on January 1, 2020.

The 2019 CBC Seismic Design Parameters have been generated using the SEAOC/OSHPD Seismic Design Maps Tool, a web-based software application available at the website www.seismicmaps.org. This software application calculates seismic design parameters in accordance with several building code reference documents, including ASCE 7-16, upon which the 2019 CBC is based. The application utilizes a database of risk-targeted maximum considered earthquake (MCE_R) site accelerations at 0.01-degree intervals for each of the code documents. The tables below were created using data obtained from the application. The output generated from this program is included as Plate E-1 in Appendix E of this report.

The 2019 CBC requires that a site-specific ground motion study be performed in accordance with Section 11.4.8 of ASCE 7-16 for Site Class D sites with a mapped S_1 value greater than 0.2. However, Section 11.4.8 of ASCE 7-16 also indicates an exception to the requirement for a site-specific ground motion hazard analysis for certain structures on Site Class D sites. The commentary for Section 11 of ASCE 7-16 (Page 534 of Section C11 of ASCE 7-16) indicates that "In general, this exception effectively limits the requirements for site-specific hazard analysis to very tall and or flexible structures at Site Class D sites." **Based on our understanding of the proposed development, the seismic design parameters presented below were calculated assuming that the exception in Section 11.4.8 applies to the proposed structure at this site. However, the structural engineer should verify that this exception is applicable to the proposed structure.** Based on the exception, the spectral response accelerations presented below were calculated using the site coefficients (F_a and F_v) from Tables 1613.2.3(1) and 1613.2.3(2) presented in Section 16.4.4 of the 2019 CBC.

2019 CBC SEISMIC DESIGN PARAMETERS

Parameter		Value
Mapped Spectral Acceleration at 0.2 sec Period	S_S	1.500
Mapped Spectral Acceleration at 1.0 sec Period	S_1	0.576
Site Class	---	D
Site Modified Spectral Acceleration at 0.2 sec Period	S_{MS}	1.500
Site Modified Spectral Acceleration at 1.0 sec Period	S_{M1}	0.993
Design Spectral Acceleration at 0.2 sec Period	S_{DS}	1.000
Design Spectral Acceleration at 1.0 sec Period	S_{D1}	0.662

It should be noted that the site coefficient F_v and the parameters S_{M1} and S_{D1} were not included in the SEAOC/OSHPD Seismic Design Maps Tool output for the 2019 CBC. We calculated these parameters-based on Table 1613.2.3(2) in Section 16.4.4 of the 2019 CBC using the value of S_1 obtained from the Seismic Design Maps Tool, assuming that a site-specific ground motion hazards analysis is not required for the proposed buildings at this site.

Liquefaction

Liquefaction is the loss of strength in generally cohesionless, saturated soils when the pore-water pressure induced in the soil by a seismic event becomes equal to or exceeds the overburden pressure. The primary factors which influence the potential for liquefaction include groundwater table elevation, soil type and plasticity characteristics, relative density of the soil, initial confining pressure, and intensity and duration of ground shaking. The depth within which the occurrence of liquefaction may impact surface improvements is generally identified as the upper 50 feet below the existing ground surface. Liquefaction potential is greater in saturated, loose, poorly graded fine sands with a mean (d_{50}) grain size in the range of 0.075 to 0.2 mm (Seed and Idriss, 1971). Non-sensitive clayey (cohesive) soils which possess a plasticity index of at least 18 (Bray and Sancio, 2006) are generally not considered to be susceptible to liquefaction, nor are those soils which are above the historic static groundwater table.

The Riverside County GIS website indicates that the subject site is located within a zone of low liquefaction susceptibility. In addition, the subsurface conditions encountered at the boring locations are not considered to be conducive to liquefaction. These conditions consist of moderate to high strength older native alluvial soils and no evidence of a long-term groundwater table within the depths explored by the borings. Based on these considerations, liquefaction is not considered to be a design concern for this project.

6.2 Geotechnical Design Considerations

General

Undocumented fill soils were encountered at Boring No. B-8 extending to a depth of 4½± feet. Possible fill soils were encountered at Boring No. B-10 extending to a depth of 6½± feet. All of the other borings encountered native alluvium at the ground surface. The near-surface native alluvial soils extending from the ground surface to depths of 1½ to 6½± feet, were classified as younger alluvium, except for Boring No. B-9. The younger alluvium generally consists of medium dense to dense silty sands, sandy silts, and clayey sands. Some of the borings encountered relatively lower strength younger soils within the upper 3 to 6½± feet below the ground surface. The results of consolidation/collapse testing indicate that some of the near-surface alluvium encountered with the upper 6± feet possess minor collapse potential and moderate compressibility when inundated with water. All of the borings also encountered older alluvial soils directly beneath artificial fill soils, possible fill soils, and the younger alluvium. The older alluvial soils generally possess moderate to high strengths and favorable consolidation/collapse characteristics. Remedial grading is considered warranted within the proposed building area in order to remove all of the undocumented fill soils in their entirety, and a portion of the near-surface alluvium, and any soils disturbed during the demolition process, and replace these materials as compacted structural fill soils.

Settlement

The recommended remedial grading will remove all of the undocumented fill soils and a portion of the near-surface native alluvium, including potentially collapsible/compressible soils. The native soils that will remain in place below the recommended depth of overexcavation will not be subject to significant load increases from the foundations of the new structure. Provided that the recommended remedial grading is completed, the post-construction static settlements of the proposed structure is expected to be within tolerable limits.

Soluble Sulfates

The results of the soluble sulfate testing indicate that the selected samples of the on-site soils contain negligible concentrations of soluble sulfates, in accordance with American Concrete Institute (ACI) guidelines. Therefore, specialized concrete mix designs are not considered to be necessary, with regard to sulfate protection purposes. It is, however, recommended that additional soluble sulfate testing be conducted at the completion of rough grading to verify the soluble sulfate concentrations of the soils which are present at pad grade within the building area.

Expansion

The near-surface soils at this site generally consist of silty sands and sandy silts with varying clay content and occasional sandy clays. Laboratory testing indicates that the on-site soils possess medium expansion potential (EI=53). The foundation and floor slab design recommendations contained within this report are made in consideration of the expansion index test results. It is recommended that additional expansion index testing be conducted at the completion of rough grading to verify the expansion potential of the as-graded building pad.

Corrosion Potential

The results of laboratory testing indicate that the on-site soils possess saturated resistivity values of 2,280 and 3,640 ohm-cm, and a pH values of 7.5 and 7.8. These test results have been evaluated in accordance with guidelines published by the Ductile Iron Pipe Research Association (DIPRA). The DIPRA guidelines consist of a point system by which characteristics of the soils are used to quantify the corrosivity characteristics of the site. Sulfides, and redox potential are factors that are also used in the evaluation procedure. We have evaluated the corrosivity characteristics of the on-site soils using resistivity, pH, and moisture content. Based on these factors, and utilizing the DIPRA procedure, **the on-site soils are considered to be slightly corrosive to ductile iron pipe. Therefore, polyethylene encasement or some other appropriate method of protection may be required for iron pipes.** Since SCG does not practice in the area of corrosion engineering, the client may also wish to contact a corrosion engineer to provide a more thorough evaluation.

Based on American Concrete Institute (ACI) Publication 318 Building Code Requirements for Structural Concrete and Commentary, reinforced concrete that is exposed to external sources of chlorides requires corrosion protection for the steel reinforcement contained within the concrete. ACI 318 defines concrete exposed to moisture and an external source of chlorides as "severe" or exposure category C2. ACI 318 does not clearly define a specific chloride concentration at which contact with the adjacent soil will constitute a "C2" or severe exposure.

However, the Caltrans Memo to Designers 10-5, Protection of Reinforcement Against Corrosion Due to Chlorides, Acids and Sulfates, dated June 2010, indicates that soils possessing chloride concentrations greater than 500 mg/kg are considered to be corrosive to reinforced concrete. The results of the laboratory testing indicate chloride concentrations of 14 and 42 mg/kg. Although the soils contain some chlorides, we do not expect that the chloride concentrations of the tested soils are high enough to constitute a "severe" or C2 chloride exposure. Therefore, a chloride exposure category of C1 is considered appropriate for this site. Since SCG does not practice in the area of corrosion engineering, the client may also wish to contact a corrosion engineer to provide a more thorough evaluation.

Nitrates

Nitrates present in soil can be corrosive to copper tubing at concentrations greater than 50 mg/kg. The tested sample possesses a nitrate concentration of 23 and 42 mg/kg. Based on this test result, the on-site soils are not considered to be corrosive to copper pipe. Since SCG does not practice in the area of corrosion engineering, we recommend that the client contact a corrosion engineer to provide a more thorough evaluation.

Shrinkage/Subsidence

Based on the results of the laboratory testing, removal and recompaction of the near-surface native alluvium will result in an average shrinkage of 2 to 12 percent. However, the estimated shrinkage of the individual soil layers at the site is highly variable, locally ranging from a minimum shrinkage value of 1 percent to a maximum shrinkage of 16 percent at varying sample depths and locations. It should be noted that the potential shrinkage estimate is based on dry density testing performed on small-diameter samples taken at the boring locations. If a more accurate and precise shrinkage estimate is desired, SCG can perform a shrinkage study involving several excavated test-pits where in-place densities are determined using in-situ testing methods instead of laboratory density testing on small-diameter samples. Please contact SCG for details and a cost estimate regarding a shrinkage study, if desired.

These estimates are based on previous experience and the subsurface conditions encountered at the boring locations. The actual amount of subsidence is expected to be variable and will be dependent on the type of machinery used, repetitions of use, and dynamic effects, all of which are difficult to assess precisely.

Grading and Foundation Plan Review

It is recommended that we be provided with copies of the grading and foundation plans, when they become available, for review with regard to the conclusions, recommendations, and assumptions contained within this report.

6.3 Site Grading Recommendations

The grading recommendations presented below are based on the subsurface conditions encountered at the boring locations and our understanding of the proposed development. We recommend that all grading activities be completed in accordance with the Grading Guide

Specifications included as Appendix D of this report, unless superseded by site-specific recommendations presented below.

Site Stripping

Demolition of the existing structures and pavements will be necessary in order to facilitate the construction of the proposed development. Demolition should include all foundations, floor slabs, utilities and any other subsurface improvements that will not remain in place with the new development. Debris resultant from demolition should be disposed of off-site. Alternatively, concrete and asphalt debris may be crushed to a maximum 2-inch particle size, well mixed with the on-site soils, and incorporated into new structural fills.

Initial site preparation should include stripping of any surficial vegetation and organic soils. Based on conditions encountered at the time of the subsurface exploration, stripping of native grass and weed growth is expected to be necessary throughout the majority of the site. Any trash should also be disposed of prior to site grading. These materials should be disposed of off-site. The actual extent of site stripping should be determined in the field by the geotechnical engineer, based on the organic content and stability of the materials encountered.

Treatment of Existing Soils: Building Pad

Remedial grading should be performed within the proposed building pad area in order to remove all of the undocumented fill soils and a portion of the existing younger alluvial soils. In general, it is recommended that the overexcavation extend to a depth of at least 4 feet below existing grade, and to a depth of at least 4 feet below proposed grade, whichever is greater. Within the influence zones of the new foundations, the overexcavation should extend to a depth of at least 3 feet below proposed foundation bearing grade.

The overexcavation areas should extend at least 5 feet beyond the building perimeters, and to an extent equal to the depth of fill below the new foundations. If the proposed structure incorporates any exterior columns (such as for a canopy or overhang) the area of overexcavation should also encompass these areas.

Following completion of the overexcavation, the subgrade soils within the overexcavation areas should be evaluated by the geotechnical engineer to verify their suitability to serve as the structural fill subgrade, as well as to support the foundation loads of the new structure. This evaluation should include proofrolling and probing to identify any soft, loose, or otherwise unstable soils that must be removed. **Some localized areas of deeper excavation will be required if additional loose, porous, overly moist, dry, or low-density native soils or if additional undocumented fill soils are encountered at the base of the overexcavation.**

After a suitable overexcavation subgrade has been achieved, the exposed soils should be scarified to a depth of at least 12 inches and moisture conditioned or air dried to achieve a moisture content of 2 to 4 percent above optimum moisture content. The subgrade soils should then be recompacted to at least 90 percent of the ASTM D-1557 maximum dry density.

The building pad area may then be raised to grade with previously excavated soils or imported, very low expansive structural fill. All structural fill soils present within the proposed building area should be compacted to at least 90 percent of the ASTM D-1557 maximum dry density.

Treatment of Existing Soils: Retaining Walls and Site Walls

The existing soils within the areas of any proposed retaining walls and site walls should be overexcavated to a depth of 3 feet below foundation bearing grade and replaced as compacted structural fill as discussed above for the proposed building pad. Any undocumented fill soils or disturbed native alluvium within any of these foundation areas should be removed in their entirety. The overexcavation areas should extend at least 5 feet beyond the foundation perimeters, and to an extent equal to the depth of fill below the new foundations. Any erection pads for tilt-up concrete walls are considered to be part of the foundation system. Therefore, these overexcavation recommendations are applicable to erection pads. The overexcavation subgrade soils should be evaluated by the geotechnical engineer prior to scarifying, moisture conditioning to within 2 to 4 percent above the optimum moisture content, and recompacting the upper 12 inches of exposed subgrade soils. The previously excavated soils may then be replaced as compacted structural fill.

If the full lateral recommended remedial grading cannot be completed for the proposed retaining walls and site walls located along property lines, the foundations for those walls should be designed using a reduced allowable bearing pressure. Furthermore, the contractor should take necessary precautions to protect the adjacent structures during rough grading. Specialized grading techniques, such as A-B-C slot cuts, will likely be required during remedial grading. The geotechnical engineer of record should be contacted if additional recommendations, such as shoring design recommendations, are required during grading.

Treatment of Existing Soils: Parking Areas

Based on economic considerations, overexcavation of the existing near-surface soils in the new parking and drive areas is not considered warranted, with the exception of areas where lower strength, or unstable soils are identified by the geotechnical engineer during grading.

Subgrade preparation in the new parking and drive areas should initially consist of removal of all soils disturbed during stripping. The geotechnical engineer should then evaluate the subgrade to identify any areas of additional unsuitable soils. The subgrade soils should then be scarified to a depth of 12± inches, moisture conditioned to 2 to 4 percent above optimum, and recompacted to at least 90 percent of the ASTM D-1557 maximum dry density. Based on the presence of variable strength surficial soils throughout the site, it is expected that some isolated areas of additional overexcavation may be required to remove zones of lower strength, unsuitable soils.

The grading recommendations presented above for the proposed parking and drive areas assume that the owner and/or developer can tolerate minor amounts of settlement within the proposed parking areas. The grading recommendations presented above do not completely mitigate the extent of undocumented fill soils or low strength younger alluvium in the parking areas. As such, settlement and associated pavement distress could occur. Typically, repair of such distressed areas involves significantly lower costs than completely mitigating these soils at the time of construction. If the owner cannot tolerate the risk of such settlements, the parking

and drive areas should be overexcavated to a depth of 2 feet below proposed pavement subgrade elevation, with the resulting soils replaced as compacted structural fill.

Fill Placement

- Fill soils should be placed in thin (6± inches), near-horizontal lifts, moisture conditioned to 2 to 4 percent above the optimum moisture content, and compacted.
- On-site soils may be used for fill provided they are cleaned of any debris to the satisfaction of the geotechnical engineer.
- All grading and fill placement activities should be completed in accordance with the requirements of the 2019 CBC and the grading code of the city of Perris.
- All fill soils should be compacted to at least 90 percent of the ASTM D-1557 maximum dry density. Fill soils should be well mixed.
- Compaction tests should be performed periodically by the geotechnical engineer as random verification of compaction and moisture content. These tests are intended to aid the contractor. Since the tests are taken at discrete locations and depths, they may not be indicative of the entire fill and therefore should not relieve the contractor of his responsibility to meet the job specifications.

Imported Structural Fill

All imported structural fill should consist of low expansive (EI < 50), well graded soils possessing at least 10 percent fines (that portion of the sample passing the No. 200 sieve). Additional specifications for structural fill are presented in the Grading Guide Specifications, included as Appendix D.

Utility Trench Backfill

In general, all utility trench backfill soils should be compacted to at least 90 percent of the ASTM D-1557 maximum dry density. As an alternative, a clean sand (minimum Sand Equivalent of 30) may be placed within trenches and compacted in place (jetting or flooding is not recommended). Compacted trench backfill should conform to the requirements of the local grading code, and more restrictive requirements may be indicated by the city of Perris. All utility trench backfills should be witnessed by the geotechnical engineer. The trench backfill soils should be compaction tested where possible; probed and visually evaluated elsewhere.

Utility trenches which parallel a footing, and extending below a 1h:1v plane projected from the outside edge of the footing should be backfilled with structural fill soils, compacted to at least 90 percent of the ASTM D-1557 standard. Pea gravel backfill should not be used for these trenches.

6.4 Construction Considerations

Excavation Considerations

The near-surface soils generally consist of silty sands, clayey sands, sandy silts and sandy clays. Some of these materials will likely be subject to minor caving within shallow excavations. Where

caving occurs within shallow excavations, flattened excavation slopes may be sufficient to provide excavation stability. On a preliminary basis, the inclination of temporary slopes should not exceed 2:1v. Deeper excavations may require some form of external stabilization such as shoring or bracing. Maintaining adequate moisture content within the near-surface soils will improve excavation stability. All excavation activities on this site should be conducted in accordance with Cal-OSHA regulations.

Moisture Sensitive Subgrade Soils

Most of the near surface soils possess appreciable silt and clay content and may become unstable if exposed to significant moisture infiltration or disturbance by construction traffic. In addition, based on their granular content, some of the on-site soils will also be susceptible to erosion. The site should, therefore, be graded to prevent ponding of surface water and to prevent water from running into excavations.

Expansive Soils

Some of the near surface soils have been determined to possess medium expansion potentials. Therefore, care should be given to proper moisture conditioning of all building pad subgrade soils to a moisture content of 2 to 4 percent above the Modified Proctor optimum during site grading. All imported fill soils should have low expansive (EI < 50) characteristics. **In addition to adequately moisture conditioning the subgrade soils and fill soils during grading, special care must be taken to maintain moisture content of these soils at 2 to 4 percent above the Modified Proctor optimum. This will require the contractor to frequently moisture condition these soils throughout the grading process, unless grading occurs during a period of relatively wet weather**.

Due to the presence of expansive soils at this site, provisions should be made to limit the potential for surface water to penetrate the soils immediately adjacent to the structures. These provisions should include directing surface runoff into rain gutters and area drains, reducing the extent of landscaped areas around the structure, and sloping the ground surface away from the building. Where possible, it is recommended that landscaped planters not be located immediately adjacent to the building. If landscaped planters around the buildings are necessary, it is recommended that drought tolerant plants or a drip irrigation system be utilized, to minimize the potential for deep moisture penetration around the structures. Presented below is a list of additional soil moisture control recommendations that should be considered by the owner, developer, and civil engineer:

- Ponding and areas of low flow gradients in unpaved walkways, grass and planter areas should be avoided. In general, minimum drainage gradients of 2 percent should be maintained in unpaved areas.
- Bare soil within five feet of proposed structures should be sloped at a minimum five percent gradient away from the structures (about three inches of fall in five feet), or the same area could be paved with a minimum surface gradient of one percent. Pavement is preferable.
- Decorative gravel ground cover tends to provide a reservoir for surface water and may hide areas of ponding or poor drainage. Decorative gravel is, therefore, not recommended and should not be utilized for landscaping unless equipped with a subsurface drainage system designed by a licensed landscape architect.
- Positive drainage devices, such as graded swales, paved ditches, and catch basins should be installed at appropriate locations within the area of proposed development.

- Concrete walks and flatwork should not obstruct the free flow of surface water to the appropriate drainage devices.
- Area drains should be recessed below grade to allow free flow of water into the drain. Concrete or brick flatwork joints should be sealed with mortar or flexible mastic.
- Gutter and downspout systems should be installed to capture all discharge from roof areas. Downspouts should discharge directly into a pipe or paved surface system to be conveyed offsite.
- Enclosed planters adjoining, or in close proximity to proposed structures, should be sealed at the bottom and provided with subsurface collection systems and outlet pipes.
- Depressed planters should be raised with soil to promote runoff (minimum drainage gradient two percent or five percent, see above), and/or equipped with area drains to eliminate ponding.
- Drainage outfall locations should be selected to avoid erosion of slopes and/or properly armored to prevent erosion of graded surfaces. No drainage should be directed over or towards adjoining slopes.
- All drainage devices should be maintained on a regular basis, including frequent observations during the rainy season to keep the drains free of leaves, soil and other debris.
- Landscape irrigation should conform to the recommendations of the landscape architect and should be performed judiciously to preclude either soaking or excessive drying of the foundation soils. This should entail regular watering during the drier portions of the year and little or no irrigation during the rainy season. Automatic sprinkler systems should, therefore, be switched to manual operation during the rainy season. Good irrigation practice typically requires frequent application of limited quantities of water that are sufficient to sustain plant growth, but do not excessively wet the soils. Ponding and/or run-off of irrigation water are indications of excessive watering.

Other provisions, as determined by the landscape architect or civil engineer, may also be appropriate.

Groundwater

The static groundwater table is considered to exist at a depth greater than 25± feet or more below existing grade. Therefore, groundwater is not expected to impact the grading or foundation construction activities.

6.5 Foundation Design and Construction

Based on the preceding grading recommendations, it is assumed that the new building pad will be underlain by newly placed structural fill soils extending to depths of at least 3 feet below foundation bearing grade. Based on this subsurface profile, the proposed structure may be supported on shallow foundations.

Foundation Design Parameters

New square and rectangular footings may be designed as follows:

- Maximum, net allowable soil bearing pressure: 2,500 lbs/ft^2.

- Minimum wall/column footing width: 14 inches/24 inches.

- Minimum longitudinal steel reinforcement within strip footings: Six (6) No. 5 rebars (3 top and 3 bottom), due to the presence of potentially expansive soils.

- Minimum foundation embedment: 12 inches into suitable structural fill soils, and at least 24 inches below adjacent exterior grade. Interior column footings may be placed immediately beneath the floor slab.

- It is recommended that the perimeter building foundations be continuous across all exterior doorways. Any flatwork adjacent to the exterior doors should be doweled into the perimeter foundations in a manner determined by the structural engineer.

The allowable bearing pressures presented above may be increased by 1/3 when considering short duration wind or seismic loads. The minimum steel reinforcement recommended above is based on standard geotechnical practice. Additional rigidity may be necessary for structural considerations. The actual design of the foundations should be determined by the structural engineer.

Foundation Construction

The foundation subgrade soils should be evaluated at the time of overexcavation, as discussed in Section 6.3 of this report. It is further recommended that the foundation subgrade soils be evaluated by the geotechnical engineer immediately prior to steel or concrete placement. Soils suitable for direct foundation support should consist of newly placed structural fill compacted at least 90 percent of the ASTM D-1557 maximum dry density. Any unsuitable materials should be removed to a depth of suitable bearing compacted structural fill, with the resulting excavations backfilled with compacted fill soils. As an alternative, lean concrete slurry (500 to 1,500 psi) may be used to backfill such isolated overexcavations.

The foundation subgrade soils should also be properly moisture conditioned to 2 to 4 percent above the Modified Proctor optimum, to a depth of at least 12 inches below bearing grade. Since it is typically not feasible to increase the moisture content of the floor slab and foundation subgrade soils once rough grading has been completed, care should be taken to maintain the moisture content of the building pad subgrade soils throughout the construction process.

Estimated Foundation Settlements

Post-construction total and differential static settlements of shallow foundations designed and constructed in accordance with the previously presented recommendations are estimated to be less than 1.0 and 0.5 inches, respectively, under static conditions. Differential movements are expected to occur over a 30-foot span, thereby resulting in an angular distortion of less than 0.002 inches per inch.

Lateral Load Resistance

Lateral load resistance will be developed by a combination of friction acting at the base of foundations and slabs and the passive earth pressure developed by footings below grade. The following friction and passive pressure may be used to resist lateral forces:

- Passive Earth Pressure: 300 lbs/ft^3
- Friction Coefficient: 0.28

These are allowable values, and include a factor of safety. When combining friction and passive resistance, the passive pressure component should be reduced by one-third. These values assume that footings will be poured directly against compacted structural fill soils. The maximum allowable passive pressure is 2,500 lbs/ft^2.

6.6 Floor Slab Design and Construction

Subgrades which will support the new floor slab should be prepared in accordance with the recommendations contained in the ***Site Grading Recommendations*** section of this report. Based on the anticipated grading which will occur at this site, the floor of the proposed structure may be constructed as a conventional slab-on-grade supported on newly placed structural fill, extending to a depth of at least 4 feet below finished pad grade. Based on geotechnical considerations, the floor slabs may be designed as follows:

- Minimum slab thickness: 6 inches.

- Modulus of Subgrade Reaction: 100 psi/in.

- Minimum slab reinforcement: No. 3 bars at 18-inches on-center, in both directions, due to the presence of medium expansive soils at this site. The actual floor slab reinforcement should be determined by the structural engineer, based upon the imposed loading.

- Slab underlayment: If moisture sensitive floor coverings will be used then minimum slab underlayment should consist of a moisture vapor barrier constructed below the entire slab area where such moisture sensitive floor coverings are expected. The moisture vapor barrier should meet or exceed the Class A rating as defined by ASTM E 1745-97 and have a permeance rating less than 0.01 perms as described in ASTM E 96-95 and ASTM E 154-88. A polyolefin material such as 15 mil Stego® Wrap Vapor Barrier or equivalent will meet these specifications. The moisture vapor barrier should be properly constructed in accordance with all applicable manufacturer specifications. Given that a rock free subgrade is anticipated and that a capillary break is not required, sand below the barrier is not required. The need for sand and/or the amount of sand above the moisture vapor barrier should be specified by the structural engineer or concrete contractor. The selection of sand above the barrier is not a geotechnical engineering issue and hence outside our purview. Where moisture sensitive floor coverings are not anticipated, the vapor barrier may be eliminated.

- Moisture condition the floor slab subgrade soils to 2 to 4 percent above the Modified Proctor optimum moisture content, to a depth of 12 inches. The moisture content of the floor slab subgrade soils should be verified by the geotechnical engineer within 24 hours prior to concrete placement.

- Proper concrete curing techniques should be utilized to reduce the potential for slab curling or the formation of excessive shrinkage cracks.

- Proper concrete curing techniques should be utilized to reduce the potential for slab curling or the formation of excessive shrinkage cracks.

The actual design of the floor slab should be completed by the structural engineer to verify adequate thickness and reinforcement.

6.7 Retaining Wall Design and Construction

Although not indicated on the site plan, some small (less than 6 feet in height) retaining walls may be required in truck court area and to facilitate the new site grades. The parameters recommended for use in the design of these walls are presented below.

Retaining Wall Design Parameters

Based on the soil conditions encountered at the boring locations, the following parameters may be used in the design of new retaining walls for this site. We have provided parameters assuming the use of on-site soils for retaining wall backfill. The on-site soils generally consist of silty sands, sandy silts, clayey sands and sandy clays. Based on their classifications, the on-site soils consisting of silty sands and sandy silts are generally expected to possess a friction angle of at least 30 degrees when compacted to 90 percent of the ASTM-1557 maximum dry density. **However, clayey sands and sandy clay soils should not be used to backfill retaining walls because they likely possess higher expansion potential and lower strengths than the majority of the near-surface soils at the site.**

If desired, SCG could provide design parameters for an alternative select backfill material behind the retaining walls. The use of select backfill material could result in lower lateral earth pressures. In order to use the design parameters for the imported select fill, this material must be placed within the entire active failure wedge. This wedge is defined as extending from the heel of the retaining wall upwards at an angle of approximately 60° from horizontal. If select backfill material behind the retaining wall is desired, SCG should be contacted for supplementary recommendations.

RETAINING WALL DESIGN PARAMETERS

Design Parameter		**Soil Type**
		On-Site Silty Sands and Sandy Silts
Internal Friction Angle (ϕ)		30°
Unit Weight		136 lbs/ft^3
Equivalent Fluid Pressure:	Active Condition (level backfill)	46 lbs/ft^3
	Active Condition (2h:1v backfill)	73 lbs/ft^3
	At-Rest Condition (level backfill)	68 lbs/ft^3

Regardless of the backfill type, the walls should be designed using a soil-footing coefficient of friction of 0.28 and an equivalent passive pressure of 300 lbs/ft^3. The structural engineer should incorporate appropriate factors of safety in the design of the retaining walls.

The active earth pressure may be used for the design of retaining walls that do not directly support structures or support soils that in turn support structures and which will be allowed to deflect. The at-rest earth pressure should be used for walls that will not be allowed to deflect such as those which will support foundation bearing soils, or which will support foundation loads directly.

Where the soils on the toe side of the retaining wall are not covered by a "hard" surface such as a structure or pavement, the upper 1 foot of soil should be neglected when calculating passive resistance due to the potential for the material to become disturbed or degraded during the life of the structure.

Seismic Lateral Earth Pressures

In accordance with the 2019 CBC, any retaining walls more than 6 feet in height must be designed for seismic lateral earth pressures. If walls 6 feet or more are required for this site, the geotechnical engineer should be contacted for supplementary seismic lateral earth pressure recommendations.

Retaining Wall Foundation Design

The retaining wall foundations should be supported within newly placed compacted structural fill, extending to a depth of at least 3 feet below proposed foundation bearing grade. Foundations to support new retaining walls should be designed in accordance with the general Foundation Design Parameters presented in a previous section of this report.

Backfill Material

With the exception of sandy clays and clayey sands, on-site soils may be used for retaining wall backfill. However, all backfill material placed within 3 feet of the back wall face should have a particle size no greater than 3 inches. The retaining wall backfill materials should be well graded.

It is recommended that a minimum 1-foot thick layer of free-draining granular material (less than 5 percent passing the No. 200 sieve) be placed against the face of the retaining walls. This material should extend from the top of the retaining wall footing to within 1 foot of the ground surface on the back side of the retaining wall. This material should be approved by the geotechnical engineer. In lieu of the 1-foot thick layer of free-draining material, a properly installed prefabricated drainage composite such as the MiraDRAIN 6000XL (or approved equivalent), which is specifically designed for use behind retaining walls, may be used. If the layer of free-draining material is not covered by an impermeable surface, such as a structure or pavement, a 12-inch thick layer of a low permeability soil should be placed over the backfill to reduce surface water migration to the underlying soils. The layer of free draining granular material should be separated from the backfill soils by a suitable geotextile, approved by the geotechnical engineer.

All retaining wall backfill should be placed and compacted under engineering-controlled conditions in the necessary layer thicknesses to ensure an in-place density between 90 and 93 percent of the maximum dry density as determined by the Modified Proctor test (ASTM D1557).

Care should be taken to avoid over-compaction of the soils behind the retaining walls, and the use of heavy compaction equipment should be avoided.

Subsurface Drainage

As previously indicated, the retaining wall design parameters are based upon drained backfill conditions. Consequently, some form of permanent drainage system will be necessary in conjunction with the appropriate backfill material. Subsurface drainage may consist of either:

- A weep hole drainage system typically consisting of a series of 4-inch diameter holes in the wall situated slightly above the ground surface elevation on the exposed side of the wall and at an approximate 8-foot on-center spacing. The weep holes should include a 2 cubic foot pocket of open graded gravel, surrounded by an approved geotextile fabric, at each weep hole location.

- A 4-inch diameter perforated pipe surrounded by 2 cubic feet of gravel per linear foot of drain placed behind the wall, above the retaining wall footing. The gravel layer should be wrapped in a suitable geotextile fabric to reduce the potential for migration of fines. The footing drain should be extended to daylight or tied into a storm drainage system.

Weep holes or a footing drain will not be required for building stem walls.

6.8 Pavement Design Parameters

Site preparation in the pavement area should be completed as previously recommended in the ***Site Grading Recommendations*** section of this report. The subsequent pavement recommendations assume proper drainage and construction monitoring, and are based on either PCA or CALTRANS design parameters for a twenty (20) year design period. However, these designs also assume a routine pavement maintenance program to obtain the anticipated 20-year pavement service life.

Pavement Subgrades

It is anticipated that the new pavements will be primarily supported on a layer of compacted structural fill, consisting of scarified, thoroughly moisture conditioned and recompacted existing soils. The on-site soils generally consist of silty sands, sandy silts, clayey sands, and sandy clays. These materials are expected to exhibit fair to good pavement support characteristics, with estimated R-values between 30 and 50. Therefore the subsequent pavement design is based upon a conservative R-value of 30. Any fill material imported to the site should have support characteristics equal to or greater than that of the on-site soils and be placed and compacted under engineering-controlled conditions. It is recommended that additional R-value testing be performed after completion of rough grading to verify the pavement support characteristics of the pavement subgrades following site grading.

Asphaltic Concrete

Presented below are the recommended thicknesses for new flexible pavement structures consisting of asphaltic concrete over a granular base. The pavement designs are based on the

traffic indices (TI's) indicated. The client and/or civil engineer should verify that these TI's are representative of the anticipated traffic volumes. If the client and/or civil engineer determine that the expected traffic volume will exceed the applicable traffic index, we should be contacted for supplementary recommendations. The design traffic indices equate to the following approximate daily traffic volumes over a 20 year design life, assuming six operational traffic days per week.

Traffic Index	No. of Heavy Trucks per Day
4.0	0
5.0	1
6.0	3
7.0	11
8.0	35

For the purpose of the traffic volumes indicated above, a truck is defined as a 5-axle tractor trailer unit with one 8-kip axle and two 32-kip tandem axles. All of the traffic indices allow for 1,000 automobiles per day.
automobiles per day.

ASPHALT PAVEMENTS (R=30)					
Materials	Thickness (inches)				
	Auto Parking and Auto Drive Lanes (TI = 4.0 to 5.0)	Truck Traffic			
		TI = 6.0	TI = 7.0	TI = 8.0	TI = 9.0
Asphalt Concrete	3	3½	4	5	5½
Aggregate Base	6	8	10	11	13
Compacted Subgrade	12	12	12	12	12

The aggregate base course should be compacted to at least 95 percent of the ASTM D-1557 maximum dry density. The asphaltic concrete should be compacted to at least 95 percent of the Marshall maximum density, as determined by ASTM D-2726. The aggregate base course may consist of crushed aggregate base (CAB) or crushed miscellaneous base (CMB), which is a recycled gravel, asphalt and concrete material. The gradation, R-Value, Sand Equivalent, and Percentage Wear of the CAB or CMB should comply with appropriate specifications contained in the current edition of the "Greenbook" Standard Specifications for Public Works Construction.

Portland Cement Concrete

The preparation of the subgrade soils within concrete pavement areas should be performed as previously described for proposed asphalt pavement areas. The minimum recommended thicknesses for the Portland Cement Concrete pavement sections are as follows:

PORTLAND CEMENT CONCRETE PAVEMENTS (R=30)				
Materials	**Thickness (inches)**			
	Autos and Light Truck Traffic (TI = 6.0)	Truck Traffic		
		TI = 7.0	TI = 8.0	TI = 9.0
PCC	5	5½	6½	8
Compacted Subgrade (95% minimum compaction)	12	12	12	12

The concrete should have a 28-day compressive strength of at least 3,000 psi. The maximum joint spacing within all of the PCC pavements is recommended to be equal to or less than 30 times the pavement thickness.

7.0 GENERAL COMMENTS

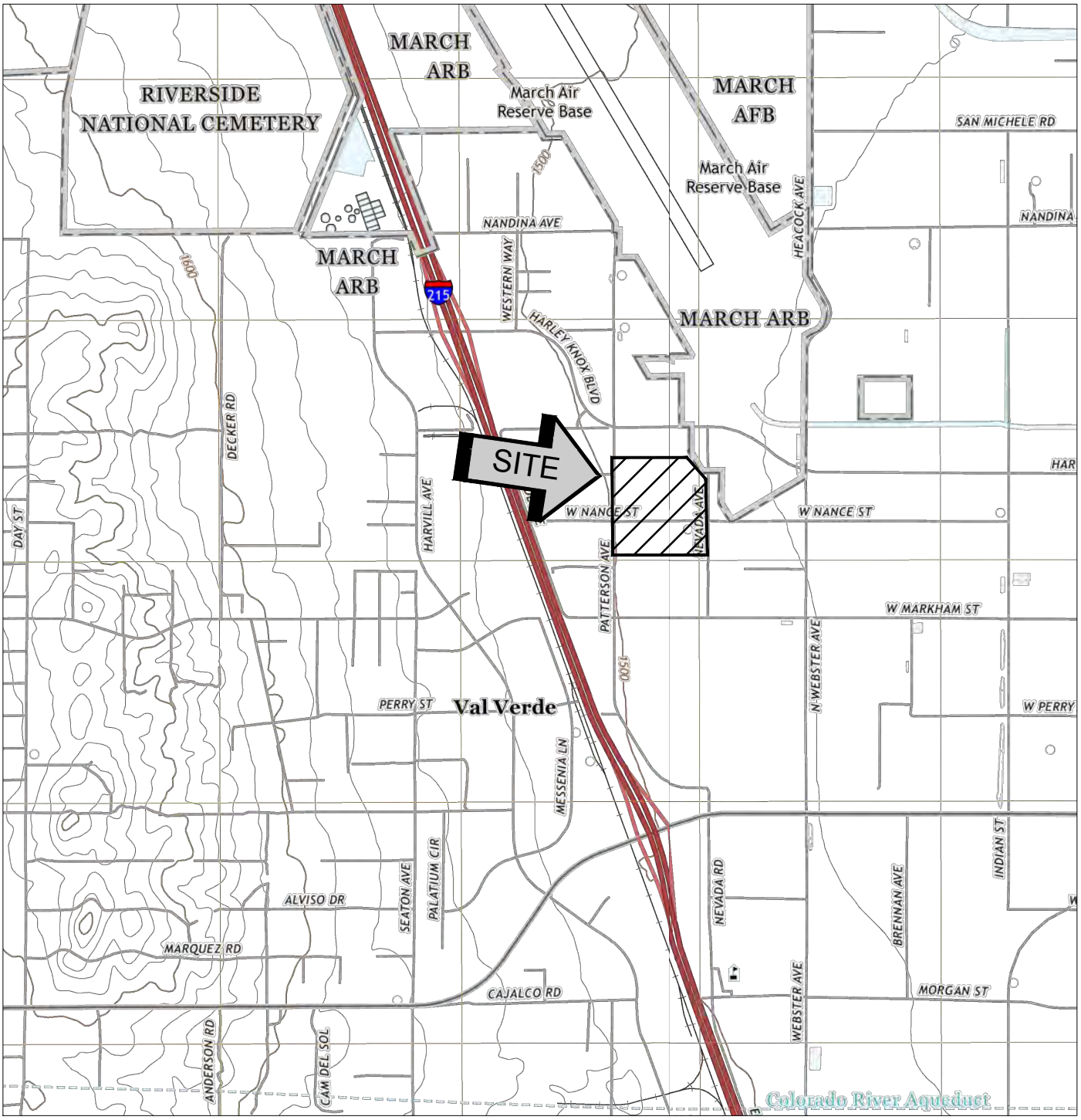
This report has been prepared as an instrument of service for use by the client, in order to aid in the evaluation of this property and to assist the architects and engineers in the design and preparation of the project plans and specifications. This report may be provided to the contractor(s) and other design consultants to disclose information relative to the project. However, this report is not intended to be utilized as a specification in and of itself, without appropriate interpretation by the project architect, civil engineer, and/or structural engineer. The reproduction and distribution of this report must be authorized by the client and Southern California Geotechnical, Inc. Furthermore, any reliance on this report by an unauthorized third party is at such party's sole risk, and we accept no responsibility for damage or loss which may occur. The client(s)' reliance upon this report is subject to the Engineering Services Agreement, incorporated into our proposal for this project.

The analysis of this site was based on a subsurface profile interpolated from limited discrete soil samples. While the materials encountered in the project area are considered to be representative of the total area, some variations should be expected between boring locations and sample depths. If the conditions encountered during construction vary significantly from those detailed herein, we should be contacted immediately to determine if the conditions alter the recommendations contained herein.

This report has been based on assumed or provided characteristics of the proposed development. It is recommended that the owner, client, architect, structural engineer, and civil engineer carefully review these assumptions to ensure that they are consistent with the characteristics of the proposed development. If discrepancies exist, they should be brought to our attention to verify that they do not affect the conclusions and recommendations contained herein. We also recommend that the project plans and specifications be submitted to our office for review to verify that our recommendations have been correctly interpreted.

The analysis, conclusions, and recommendations contained within this report have been promulgated in accordance with generally accepted professional geotechnical engineering practice. No other warranty is implied or expressed.

APPENDIX A



SOURCE: USGS TOPOGRAPHIC MAPS OF THE STEELE PEAK AND PERRIS QUADRANGLES, RIVERSIDE COUNTY, CALIFORNIA, 2018

SITE LOCATION MAP

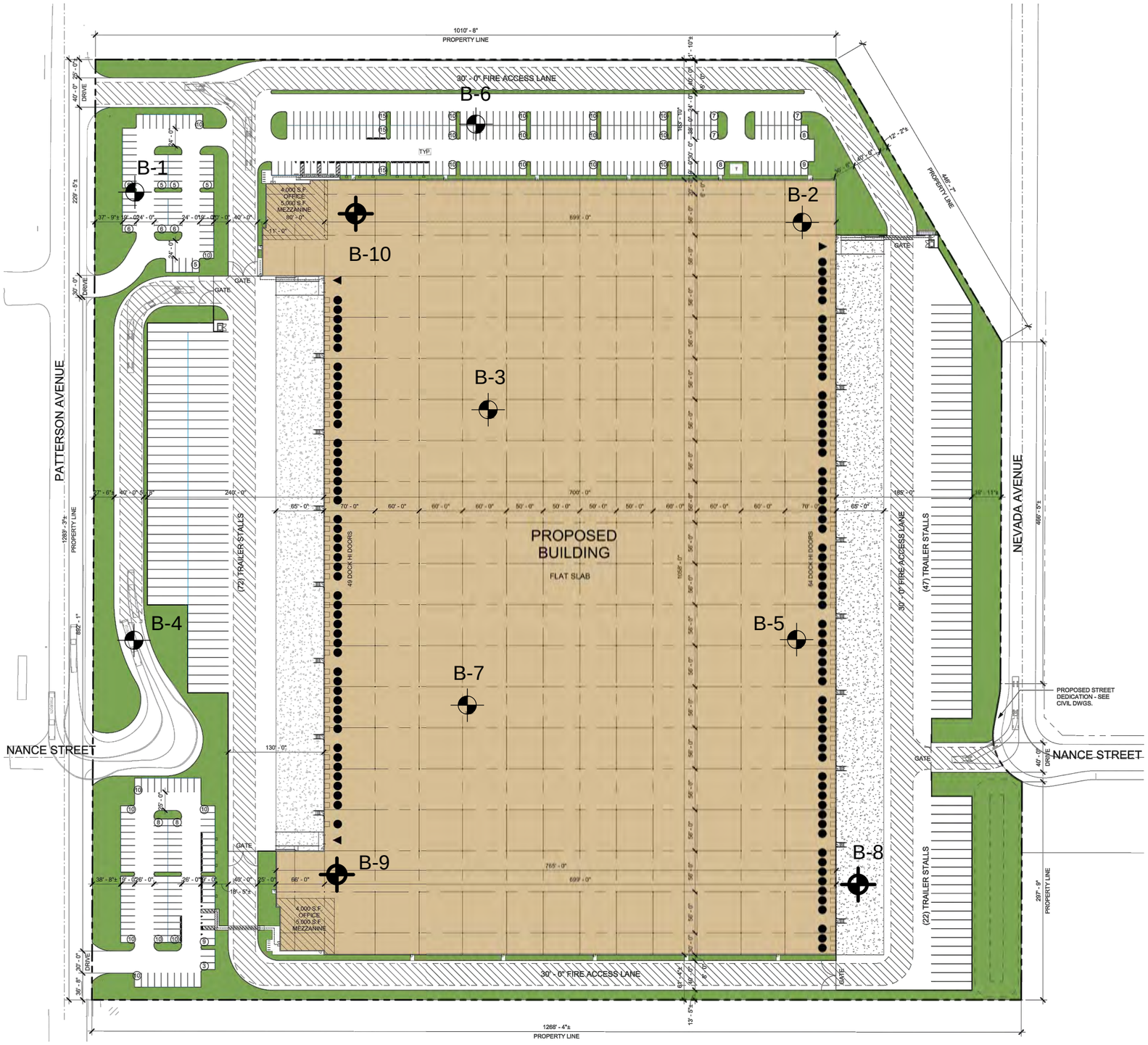
PROPOSED WAREHOUSE

PERRIS, CALIFORNIA

SCALE: 1" = 2000'	
DRAWN: RF CHKD: RGT	
SCG PROJECT 20G239-3R	
PLATE 1	

SoCalGeo

SOUTHERN CALIFORNIA GEOTECHNICAL





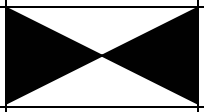
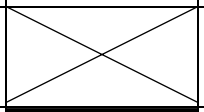
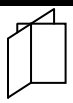
GEOTECHNICAL LEGEND

- APPROXIMATE BORING LOCATION
- PREVIOUS BORING LOCATION (SCG PROJECT NO. 20G239-1)

BORING LOCATION PLAN
PROPOSED WAREHOUSE
PERRIS, CALIFORNIA
SCALE: 1" = 150'
DRAWN: RF CHKD: RGT
SCG PROJECT 20G239-3R
PLATE 2

APPENDIX B

BORING LOG LEGEND

SAMPLE TYPE	GRAPHICAL SYMBOL	SAMPLE DESCRIPTION
AUGER		SAMPLE COLLECTED FROM AUGER CUTTINGS, NO FIELD MEASUREMENT OF SOIL STRENGTH. (DISTURBED)
CORE		ROCK CORE SAMPLE: TYPICALLY TAKEN WITH A DIAMOND-TIPPED CORE BARREL. TYPICALLY USED ONLY IN HIGHLY CONSOLIDATED BEDROCK.
GRAB		SOIL SAMPLE TAKEN WITH NO SPECIALIZED EQUIPMENT, SUCH AS FROM A STOCKPILE OR THE GROUND SURFACE. (DISTURBED)
CS		CALIFORNIA SAMPLER: 2-1/2 INCH I.D. SPLIT BARREL SAMPLER, LINED WITH 1-INCH HIGH BRASS RINGS. DRIVEN WITH SPT HAMMER. (RELATIVELY UNDISTURBED)
NSR		NO RECOVERY: THE SAMPLING ATTEMPT DID NOT RESULT IN RECOVERY OF ANY SIGNIFICANT SOIL OR ROCK MATERIAL.
SPT		STANDARD PENETRATION TEST: SAMPLER IS A 1.4 INCH INSIDE DIAMETER SPLIT BARREL, DRIVEN 18 INCHES WITH THE SPT HAMMER. (DISTURBED)
SH		SHELBY TUBE: TAKEN WITH A THIN WALL SAMPLE TUBE, PUSHED INTO THE SOIL AND THEN EXTRACTED. (UNDISTURBED)
VANE		VANE SHEAR TEST: SOIL STRENGTH OBTAINED USING A 4 BLADED SHEAR DEVICE. TYPICALLY USED IN SOFT CLAYS-NO SAMPLE RECOVERED.

COLUMN DESCRIPTIONS

DEPTH: Distance in feet below the ground surface.

SAMPLE: Sample Type as depicted above.

BLOW COUNT: Number of blows required to advance the sampler 12 inches using a 140 lb hammer with a 30-inch drop. 50/3" indicates penetration refusal (>50 blows) at 3 inches. WH indicates that the weight of the hammer was sufficient to push the sampler 6 inches or more.

POCKET PEN.: Approximate shear strength of a cohesive soil sample as measured by pocket penetrometer.

GRAPHIC LOG: Graphic Soil Symbol as depicted on the following page.

DRY DENSITY: Dry density of an undisturbed or relatively undisturbed sample in lbs/ft^3.

MOISTURE CONTENT: Moisture content of a soil sample, expressed as a percentage of the dry weight.

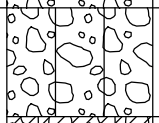
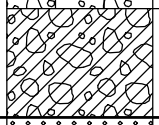
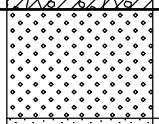
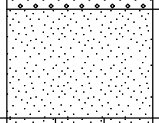
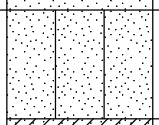
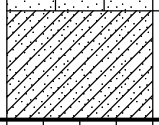
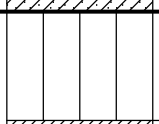
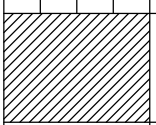
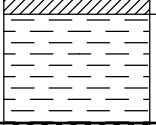
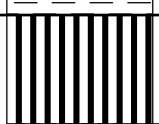
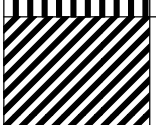
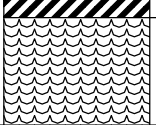
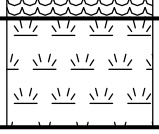
LIQUID LIMIT: The moisture content above which a soil behaves as a liquid.

PLASTIC LIMIT: The moisture content above which a soil behaves as a plastic.

PASSING #200 SIEVE: The percentage of the sample finer than the #200 standard sieve.

UNCONFINED SHEAR: The shear strength of a cohesive soil sample, as measured in the unconfined state.

SOIL CLASSIFICATION CHART

MAJOR DIVISIONS			SYMBOLS		TYPICAL DESCRIPTIONS
			GRAPH	LETTER	
COARSE GRAINED SOILS MORE THAN 50% OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE	GRAVEL AND GRAVELLY SOILS MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	CLEAN GRAVELS (LITTLE OR NO FINES)		GW	WELL-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES
				GP	POORLY-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES
		GRAVELS WITH FINES (APPRECIABLE AMOUNT OF FINES)		GM	SILTY GRAVELS, GRAVEL - SAND - SILT MIXTURES
				GC	CLAYEY GRAVELS, GRAVEL - SAND - CLAY MIXTURES
	SAND AND SANDY SOILS MORE THAN 50% OF COARSE FRACTION PASSING ON NO. 4 SIEVE	CLEAN SANDS (LITTLE OR NO FINES)		SW	WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
				SP	POORLY-GRADED SANDS, GRAVELLY SAND, LITTLE OR NO FINES
		SANDS WITH FINES (APPRECIABLE AMOUNT OF FINES)		SM	SILTY SANDS, SAND - SILT MIXTURES
				SC	CLAYEY SANDS, SAND - CLAY MIXTURES
FINE GRAINED SOILS MORE THAN 50% OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE	SILTS AND CLAYS	LIQUID LIMIT LESS THAN 50		ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
				CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
				OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
	SILTS AND CLAYS	LIQUID LIMIT GREATER THAN 50		MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SAND OR SILTY SOILS
				CH	INORGANIC CLAYS OF HIGH PLASTICITY
				OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS
HIGHLY ORGANIC SOILS				PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS

NOTE: DUAL SYMBOLS ARE USED TO INDICATE BORDERLINE SOIL CLASSIFICATIONS

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. B-8

JOB NO.: 20G239-3
PROJECT: Proposed Warehouse
LOCATION: Perris, California

DRILLING DATE: 7/7/21
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Ryan Bremer

WATER DEPTH: Dry
CAVE DEPTH: ---
READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
		24			FILL: Brown Silty fine Sand, trace Clay, trace to little medium to coarse Sand, trace Calcareous nodules, mottled, micaceous, medium dense-damp	126	6					
		44			@ 3', trace medium to coarse Sand	126	6					
5		50			OLDER ALLUVIUM: Brown Silty fine Sand, trace to little medium to coarse Sand, trace Calcareous nodules, micaceous, medium dense to dense-damp	114	6					
		39			@ 7', no Calcareous nodules	121	8					
		58			@ 9', trace to little Clay	128	10					
10												
					Brown Silty fine to medium Sand, trace coarse Sand, micaceous, trace Calcareous nodules, medium dense-damp to moist							
		33					8					
15												
		30					10					
20												
					Boring Terminated at 20'							

TBL 20G239-3.GPJ SOCALGEO.GDT 8/6/21

TEST BORING LOG **PLATE B-1**

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. B-9

JOB NO.: 20G239-3
PROJECT: Proposed Warehouse
LOCATION: Perris, California

DRILLING DATE: 7/7/21
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Ryan Bremer

WATER DEPTH: Dry
CAVE DEPTH: ---
READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
		70			OLDER ALLUVIUM: Brown Silty fine to medium Sand, trace Clay, trace fine root fibers, trace Calcareous nodules, micaceous, medium dense-damp	120	5					
		29				122	4					
5		39			Brown Silty fine Sand, some Calcareous veining, micaceous, dense-damp	121	7					
		58				111	5					
		58			@ 9', trace to little medium Sand, trace Calcareous nodules, micaceous, trace Clay, very dense-damp	129	6					
10												
					Brown Silty fine to medium Sand, trace Calcareous nodules, micaceous dense-damp to moist							
		40					9					
15												
					Brown Silty fine to coarse Sand, trace Calcareous nodules, micaceous, dense to very dense-damp							
		66					7					
20												
		39					5					
25					Boring Terminated at 25'							

TBL 20G239-3.GPJ SOCALGEO.GDT 8/6/21

TEST BORING LOG

PLATE B-2

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. B-10

JOB NO.: 20G239-3
PROJECT: Proposed Warehouse
LOCATION: Perris, California

DRILLING DATE: 7/7/21
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Ryan Bremer

WATER DEPTH: Dry
CAVE DEPTH: ---
READING TAKEN: At Completion

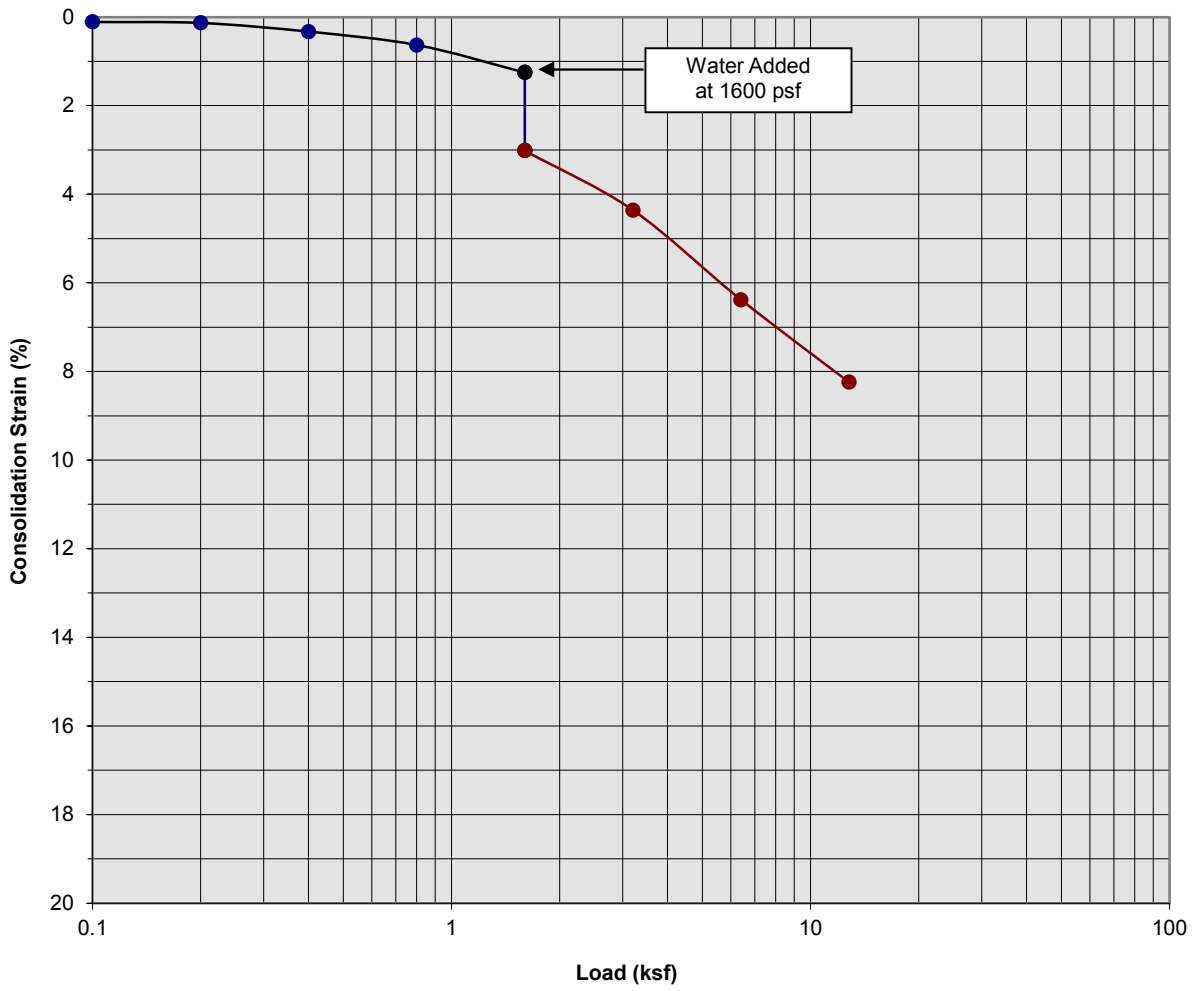
FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
		34			POSSIBLE FILL: Dark Brown Silty fine to medium Sand, trace Clay, trace fine root fibers, micaceous, loose to medium dense-damp to moist	114	4					
		25			@ 3', trace to little coarse Sand, little Calcareous nodules	120	7					
5		11				120	10					
		50/4"			OLDER ALLUVIUM: Brown Silty fine to medium Sand, trace Clay, trace coarse Sand, some Calcareous veining, micaceous very dense-moist		12					Disturbed Sample
		49			Brown Silty fine Sand, trace medium to coarse Sand, trace Calcareous nodules, micaceous, dense-moist	126	11					
10												
		23			Brown Silty fine Sand, trace medium to coarse Sand, trace Calcareous nodules, micaceous, medium dense to dense-damp		13					
15												
		36			@ 18.5', no Calcareous nodules		10					
20												
					Boring Terminated at 20'							

TBL 20G239-3.GPJ SOCALGEO.GDT 8/6/21

TEST BORING LOG **PLATE B-3**

APPENDIX C

Consolidation/Collapse Test Results



Classification: POSS. FILL: Silty fine to medium Sand, trace Clay, trace to little coarse Sand

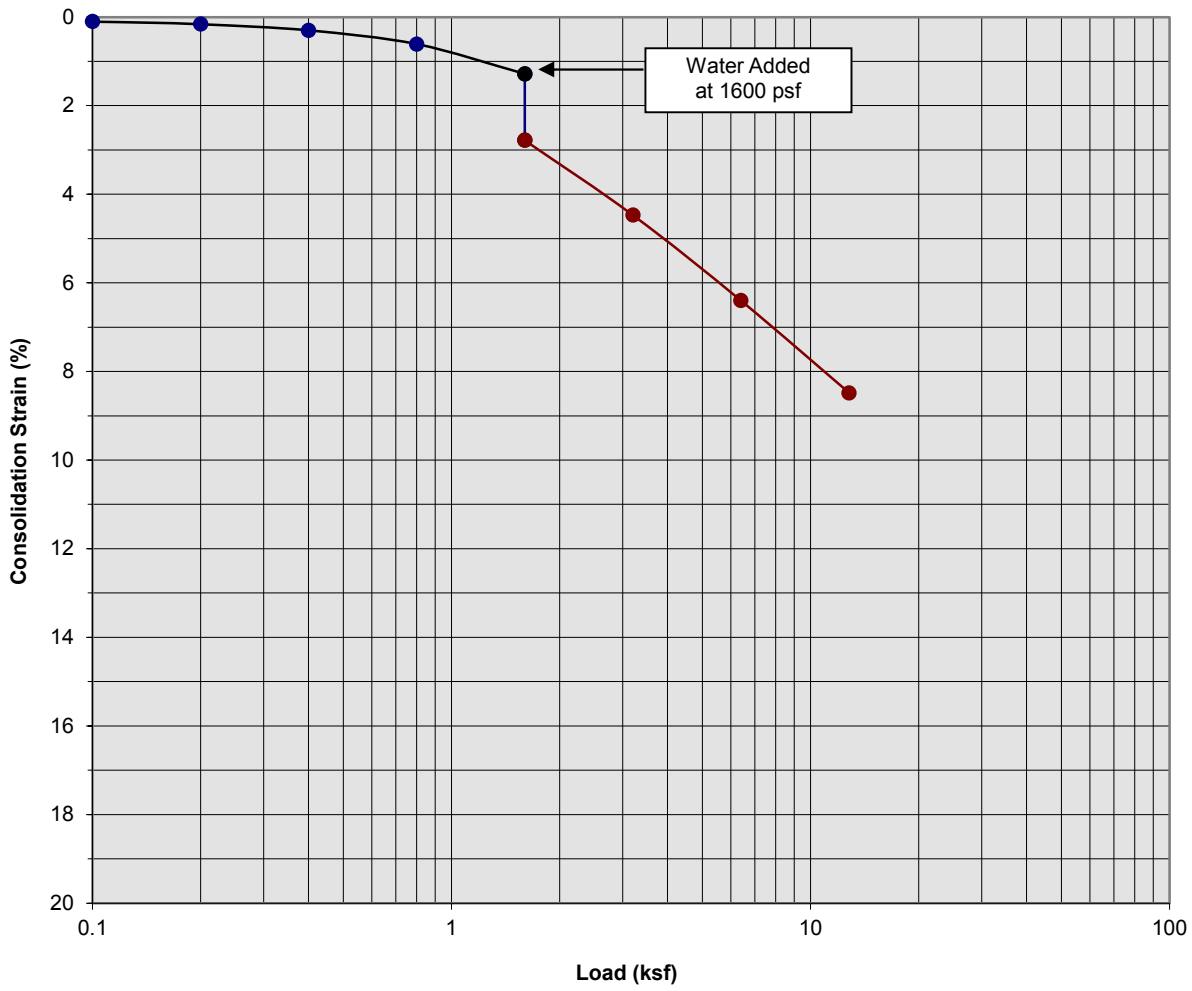
Boring Number:	B-10	Initial Moisture Content (%)	7
Sample Number:	---	Final Moisture Content (%)	10
Depth (ft)	3 to 4	Initial Dry Density (pcf)	120.0
Specimen Diameter (in)	2.4	Final Dry Density (pcf)	130.5
Specimen Thickness (in)	1.0	Percent Collapse (%)	1.76

Proposed Warehouse
Perris, California
Project No. 20G239-3

PLATE C- 1

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

Consolidation/Collapse Test Results



Classification: POSS. FILL: Silty fine to medium Sand, trace Clay

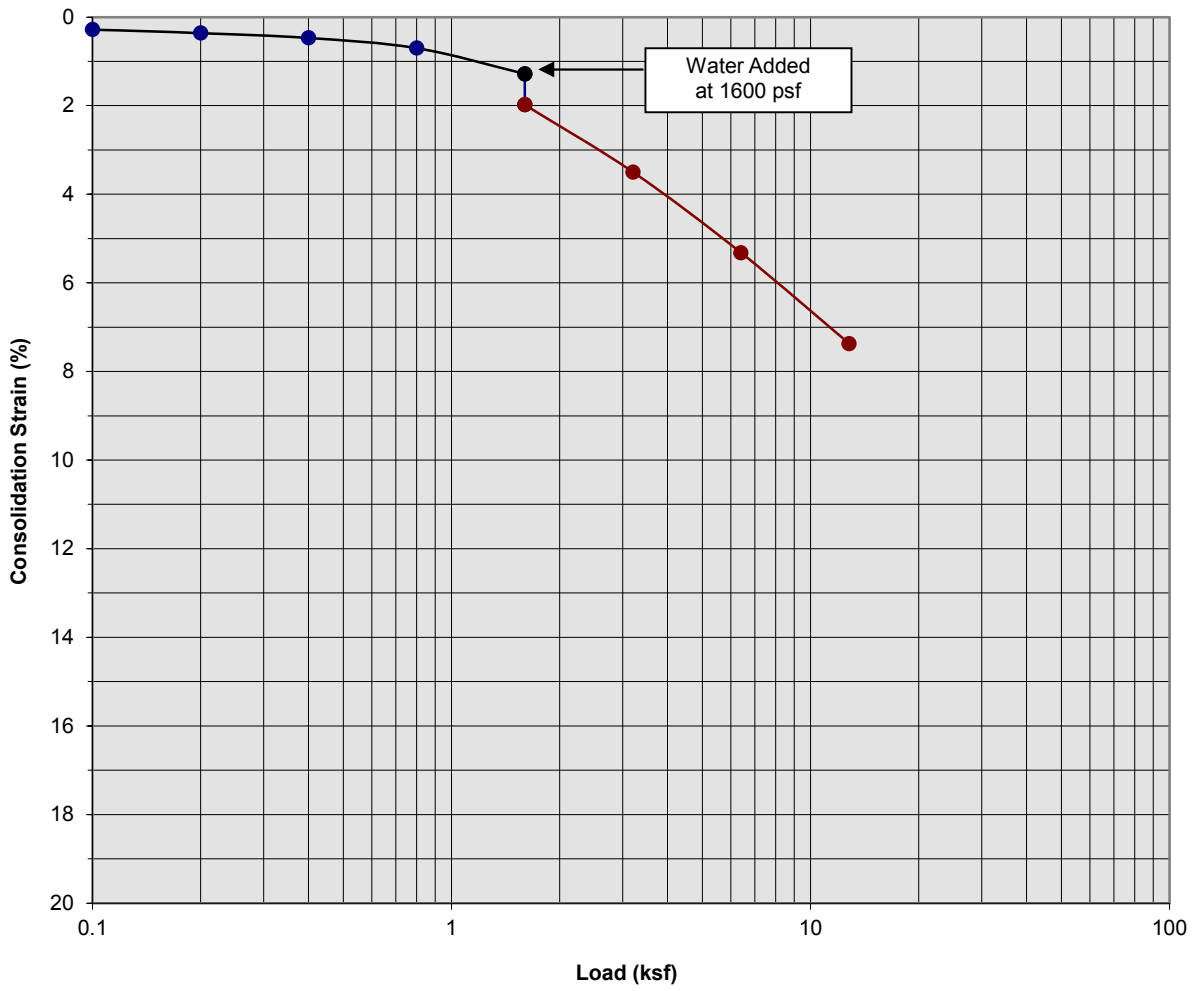
Boring Number:	B-10	Initial Moisture Content (%)	9
Sample Number:	---	Final Moisture Content (%)	12
Depth (ft)	5 to 6	Initial Dry Density (pcf)	120.9
Specimen Diameter (in)	2.4	Final Dry Density (pcf)	131.5
Specimen Thickness (in)	1.0	Percent Collapse (%)	1.50

Proposed Warehouse
Perris, California
Project No. 20G239-3

PLATE C- 2

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

Consolidation/Collapse Test Results



Classification: OLDER ALLUVIUM: Silty fine to medium Sand, trace Clay, trace coarse Sand

Boring Number:	B-10	Initial Moisture Content (%)	12
Sample Number:	---	Final Moisture Content (%)	13
Depth (ft)	9 to 10	Initial Dry Density (pcf)	126.7
Specimen Diameter (in)	2.4	Final Dry Density (pcf)	136.8
Specimen Thickness (in)	1.0	Percent Collapse (%)	0.70

Proposed Warehouse
Perris, California
Project No. 20G239-3

PLATE C- 3

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

APPENDIX D

GRADING GUIDE SPECIFICATIONS

These grading guide specifications are intended to provide typical procedures for grading operations. They are intended to supplement the recommendations contained in the geotechnical investigation report for this project. Should the recommendations in the geotechnical investigation report conflict with the grading guide specifications, the more site specific recommendations in the geotechnical investigation report will govern.

General

- The Earthwork Contractor is responsible for the satisfactory completion of all earthwork in accordance with the plans and geotechnical reports, and in accordance with city, county, and applicable building codes.

- The Geotechnical Engineer is the representative of the Owner/Builder for the purpose of implementing the report recommendations and guidelines. These duties are not intended to relieve the Earthwork Contractor of any responsibility to perform in a workman-like manner, nor is the Geotechnical Engineer to direct the grading equipment or personnel employed by the Contractor.

- The Earthwork Contractor is required to notify the Geotechnical Engineer of the anticipated work and schedule so that testing and inspections can be provided. If necessary, work may be stopped and redone if personnel have not been scheduled in advance.

- The Earthwork Contractor is required to have suitable and sufficient equipment on the job-site to process, moisture condition, mix and compact the amount of fill being placed to the approved compaction. In addition, suitable support equipment should be available to conform with recommendations and guidelines in this report.

- Canyon cleanouts, overexcavation areas, processed ground to receive fill, key excavations, subdrains and benches should be observed by the Geotechnical Engineer prior to placement of any fill. It is the Earthwork Contractor's responsibility to notify the Geotechnical Engineer of areas that are ready for inspection.

- Excavation, filling, and subgrade preparation should be performed in a manner and sequence that will provide drainage at all times and proper control of erosion. Precipitation, springs, and seepage water encountered shall be pumped or drained to provide a suitable working surface. The Geotechnical Engineer must be informed of springs or water seepage encountered during grading or foundation construction for possible revision to the recommended construction procedures and/or installation of subdrains.

Site Preparation

- The Earthwork Contractor is responsible for all clearing, grubbing, stripping and site preparation for the project in accordance with the recommendations of the Geotechnical Engineer.

- If any materials or areas are encountered by the Earthwork Contractor which are suspected of having toxic or environmentally sensitive contamination, the Geotechnical Engineer and Owner/Builder should be notified immediately.

- Major vegetation should be stripped and disposed of off-site. This includes trees, brush, heavy grasses and any materials considered unsuitable by the Geotechnical Engineer.

- Underground structures such as basements, cesspools or septic disposal systems, mining shafts, tunnels, wells and pipelines should be removed under the inspection of the Geotechnical Engineer and recommendations provided by the Geotechnical Engineer and/or city, county or state agencies. If such structures are known or found, the Geotechnical Engineer should be notified as soon as possible so that recommendations can be formulated.

- Any topsoil, slopewash, colluvium, alluvium and rock materials which are considered unsuitable by the Geotechnical Engineer should be removed prior to fill placement.

- Remaining voids created during site clearing caused by removal of trees, foundations basements, irrigation facilities, etc., should be excavated and filled with compacted fill.

- Subsequent to clearing and removals, areas to receive fill should be scarified to a depth of 10 to 12 inches, moisture conditioned and compacted

- The moisture condition of the processed ground should be at or slightly above the optimum moisture content as determined by the Geotechnical Engineer. Depending upon field conditions, this may require air drying or watering together with mixing and/or discing.

Compacted Fills

- Soil materials imported to or excavated on the property may be utilized in the fill, provided each material has been determined to be suitable in the opinion of the Geotechnical Engineer. Unless otherwise approved by the Geotechnical Engineer, all fill materials shall be free of deleterious, organic, or frozen matter, shall contain no chemicals that may result in the material being classified as “contaminated,” and shall be very low to non-expansive with a maximum expansion index (EI) of 50. The top 12 inches of the compacted fill should have a maximum particle size of 3 inches, and all underlying compacted fill material a maximum 6-inch particle size, except as noted below.

- All soils should be evaluated and tested by the Geotechnical Engineer. Materials with high expansion potential, low strength, poor gradation or containing organic materials may require removal from the site or selective placement and/or mixing to the satisfaction of the Geotechnical Engineer.

- Rock fragments or rocks less than 6 inches in their largest dimensions, or as otherwise determined by the Geotechnical Engineer, may be used in compacted fill, provided the distribution and placement is satisfactory in the opinion of the Geotechnical Engineer.

- Rock fragments or rocks greater than 12 inches should be taken off-site or placed in accordance with recommendations and in areas designated as suitable by the Geotechnical Engineer. These materials should be placed in accordance with Plate D-8 of these Grading Guide Specifications and in accordance with the following recommendations:

    - Rocks 12 inches or more in diameter should be placed in rows at least 15 feet apart, 15 feet from the edge of the fill, and 10 feet or more below subgrade. Spaces should be left between each rock fragment to provide for placement and compaction of soil around the fragments.

    - Fill materials consisting of soil meeting the minimum moisture content requirements and free of oversize material should be placed between and over the rows of rock or

concrete. Ample water and compactive effort should be applied to the fill materials as they are placed in order that all of the voids between each of the fragments are filled and compacted to the specified density.

- Subsequent rows of rocks should be placed such that they are not directly above a row placed in the previous lift of fill. A minimum 5-foot offset between rows is recommended.

- To facilitate future trenching, oversized material should not be placed within the range of foundation excavations, future utilities or other underground construction unless specifically approved by the soil engineer and the developer/owner representative.

- Fill materials approved by the Geotechnical Engineer should be placed in areas previously prepared to receive fill and in evenly placed, near horizontal layers at about 6 to 8 inches in loose thickness, or as otherwise determined by the Geotechnical Engineer for the project.

- Each layer should be moisture conditioned to optimum moisture content, or slightly above, as directed by the Geotechnical Engineer. After proper mixing and/or drying, to evenly distribute the moisture, the layers should be compacted to at least 90 percent of the maximum dry density in compliance with ASTM D-1557-78 unless otherwise indicated.

- Density and moisture content testing should be performed by the Geotechnical Engineer at random intervals and locations as determined by the Geotechnical Engineer. These tests are intended as an aid to the Earthwork Contractor, so he can evaluate his workmanship, equipment effectiveness and site conditions. The Earthwork Contractor is responsible for compaction as required by the Geotechnical Report(s) and governmental agencies.

- Fill areas unused for a period of time may require moisture conditioning, processing and recompaction prior to the start of additional filling. The Earthwork Contractor should notify the Geotechnical Engineer of his intent so that an evaluation can be made.

- Fill placed on ground sloping at a 5-to-1 inclination (horizontal-to-vertical) or steeper should be benched into bedrock or other suitable materials, as directed by the Geotechnical Engineer. Typical details of benching are illustrated on Plates D-2, D-4, and D-5.

- Cut/fill transition lots should have the cut portion overexcavated to a depth of at least 3 feet and rebuilt with fill (see Plate D-1), as determined by the Geotechnical Engineer.

- All cut lots should be inspected by the Geotechnical Engineer for fracturing and other bedrock conditions. If necessary, the pads should be overexcavated to a depth of 3 feet and rebuilt with a uniform, more cohesive soil type to impede moisture penetration.

- Cut portions of pad areas above buttresses or stabilizations should be overexcavated to a depth of 3 feet and rebuilt with uniform, more cohesive compacted fill to impede moisture penetration.

- Non-structural fill adjacent to structural fill should typically be placed in unison to provide lateral support. Backfill along walls must be placed and compacted with care to ensure that excessive unbalanced lateral pressures do not develop. The type of fill material placed adjacent to below grade walls must be properly tested and approved by the Geotechnical Engineer with consideration of the lateral earth pressure used in the design.

Foundations

- The foundation influence zone is defined as extending one foot horizontally from the outside edge of a footing, and proceeding downward at a ½ horizontal to 1 vertical (0.5:1) inclination.

- Where overexcavation beneath a footing subgrade is necessary, it should be conducted so as to encompass the entire foundation influence zone, as described above.

- Compacted fill adjacent to exterior footings should extend at least 12 inches above foundation bearing grade. Compacted fill within the interior of structures should extend to the floor subgrade elevation.

Fill Slopes

- The placement and compaction of fill described above applies to all fill slopes. Slope compaction should be accomplished by overfilling the slope, adequately compacting the fill in even layers, including the overfilled zone and cutting the slope back to expose the compacted core

- Slope compaction may also be achieved by backrolling the slope adequately every 2 to 4 vertical feet during the filling process as well as requiring the earth moving and compaction equipment to work close to the top of the slope. Upon completion of slope construction, the slope face should be compacted with a sheepsfoot connected to a sideboom and then grid rolled. This method of slope compaction should only be used if approved by the Geotechnical Engineer.

- Sandy soils lacking in adequate cohesion may be unstable for a finished slope condition and therefore should not be placed within 15 horizontal feet of the slope face.

- All fill slopes should be keyed into bedrock or other suitable material. Fill keys should be at least 15 feet wide and inclined at 2 percent into the slope. For slopes higher than 30 feet, the fill key width should be equal to one-half the height of the slope (see Plate D-5).

- All fill keys should be cleared of loose slough material prior to geotechnical inspection and should be approved by the Geotechnical Engineer and governmental agencies prior to filling.

- The cut portion of fill over cut slopes should be made first and inspected by the Geotechnical Engineer for possible stabilization requirements. The fill portion should be adequately keyed through all surficial soils and into bedrock or suitable material. Soils should be removed from the transition zone between the cut and fill portions (see Plate D-2).

Cut Slopes

- All cut slopes should be inspected by the Geotechnical Engineer to determine the need for stabilization. The Earthwork Contractor should notify the Geotechnical Engineer when slope cutting is in progress at intervals of 10 vertical feet. Failure to notify may result in a delay in recommendations.

- Cut slopes exposing loose, cohesionless sands should be reported to the Geotechnical Engineer for possible stabilization recommendations.

- All stabilization excavations should be cleared of loose slough material prior to geotechnical inspection. Stakes should be provided by the Civil Engineer to verify the location and dimensions of the key. A typical stabilization fill detail is shown on Plate D-5.

- Stabilization key excavations should be provided with subdrains. Typical subdrain details are shown on Plates D-6.

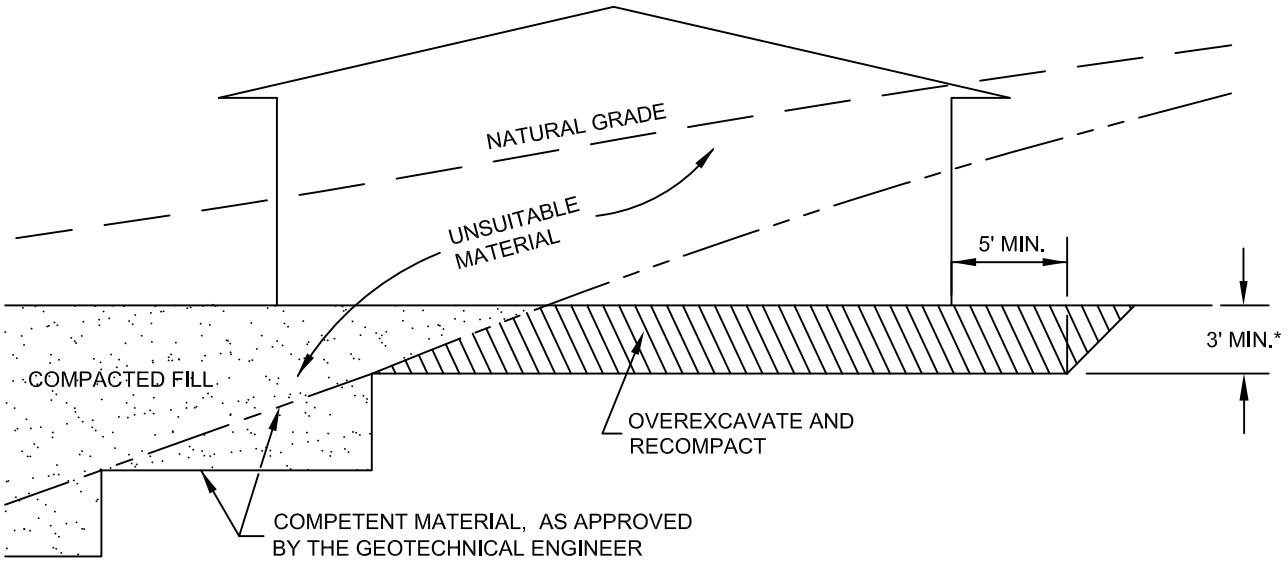
Subdrains

- Subdrains may be required in canyons and swales where fill placement is proposed. Typical subdrain details for canyons are shown on Plate D-3. Subdrains should be installed after approval of removals and before filling, as determined by the Soils Engineer.

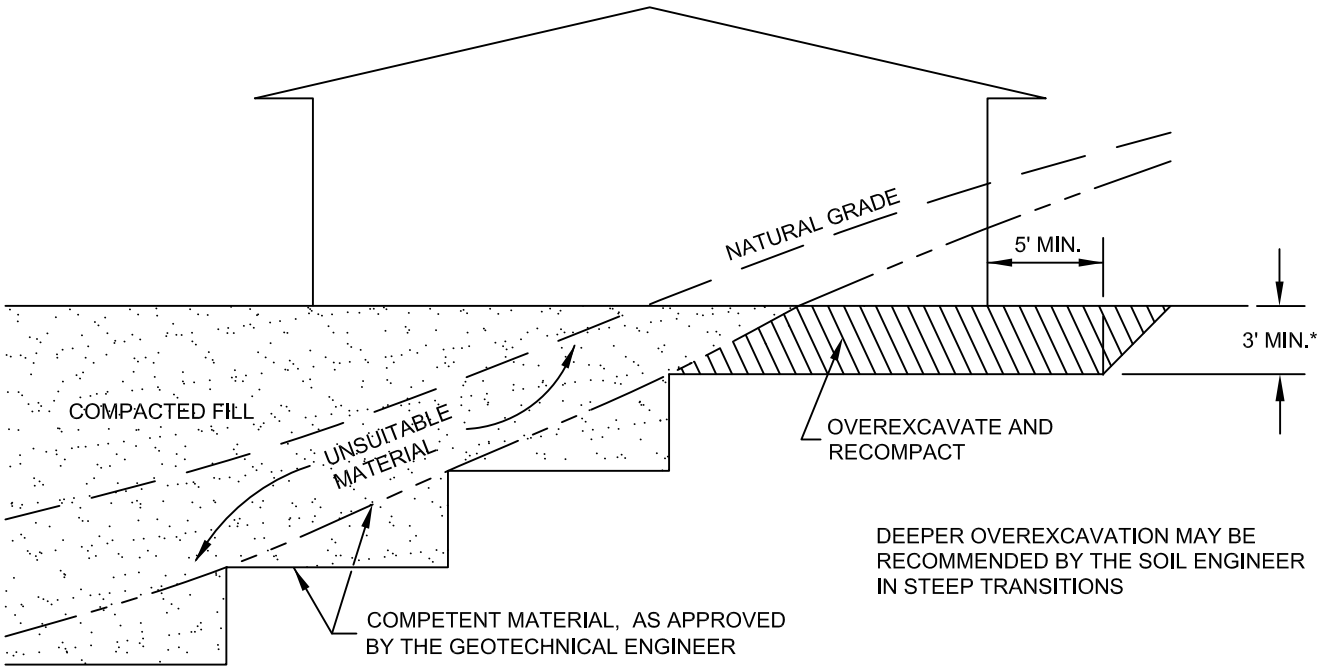
- Plastic pipe may be used for subdrains provided it is Schedule 40 or SDR 35 or equivalent. Pipe should be protected against breakage, typically by placement in a square-cut (backhoe) trench or as recommended by the manufacturer.

- Filter material for subdrains should conform to CALTRANS Specification 68-1.025 or as approved by the Geotechnical Engineer for the specific site conditions. Clean ¾-inch crushed rock may be used provided it is wrapped in an acceptable filter cloth and approved by the Geotechnical Engineer. Pipe diameters should be 6 inches for runs up to 500 feet and 8 inches for the downstream continuations of longer runs. Four-inch diameter pipe may be used in buttress and stabilization fills.

CUT LOT



CUT/FILL LOT (TRANSITION)



*SEE TEXT OF REPORT FOR SPECIFIC RECOMMENDATION. ACTUAL DEPTH OF OVEREXCAVATION MAY BE GREATER.

TRANSITION LOT DETAIL

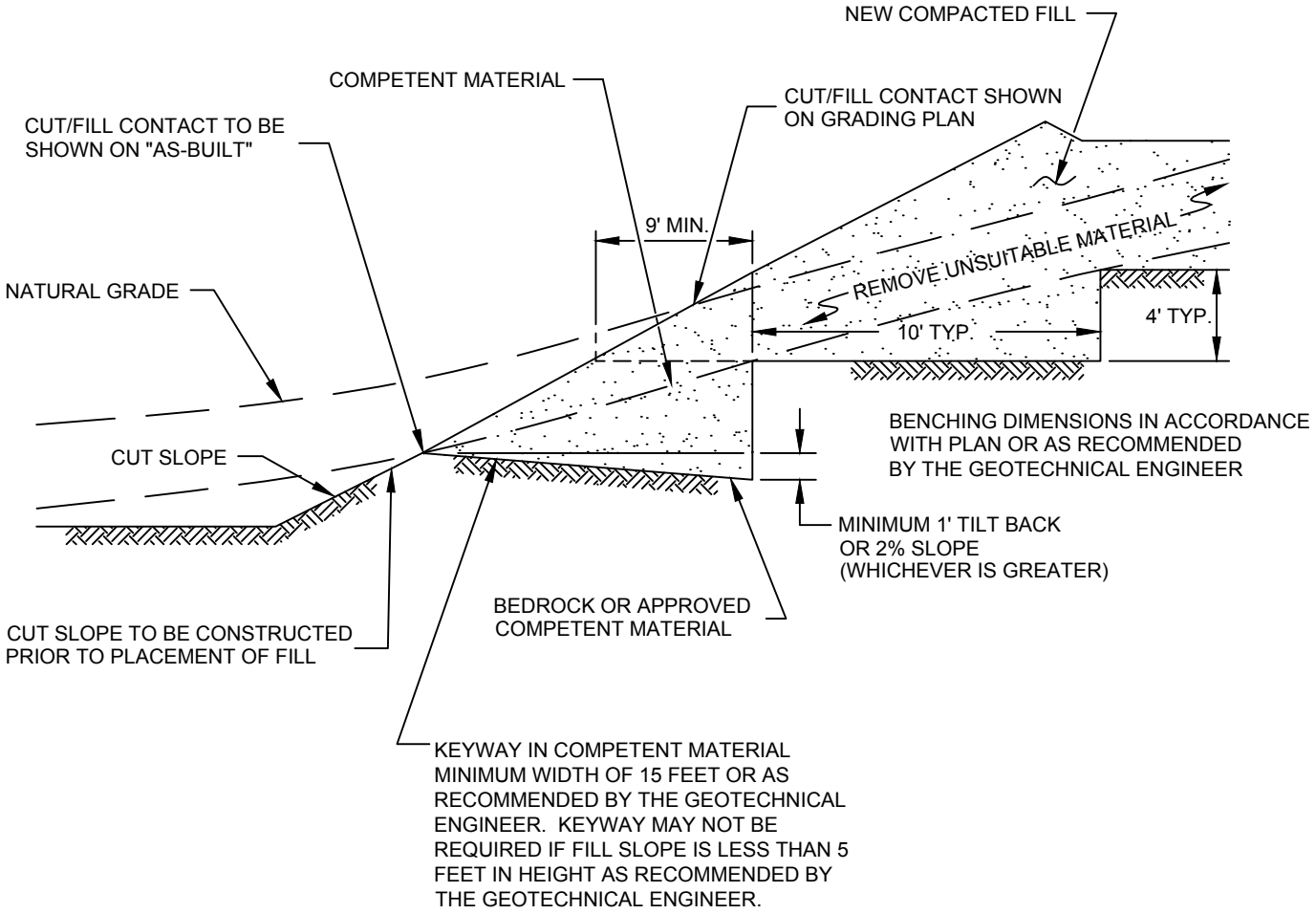
GRADING GUIDE SPECIFICATIONS

NOT TO SCALE

DRAWN: JAS
CHKD: GKM

PLATE D-1

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL



FILL ABOVE CUT SLOPE DETAIL

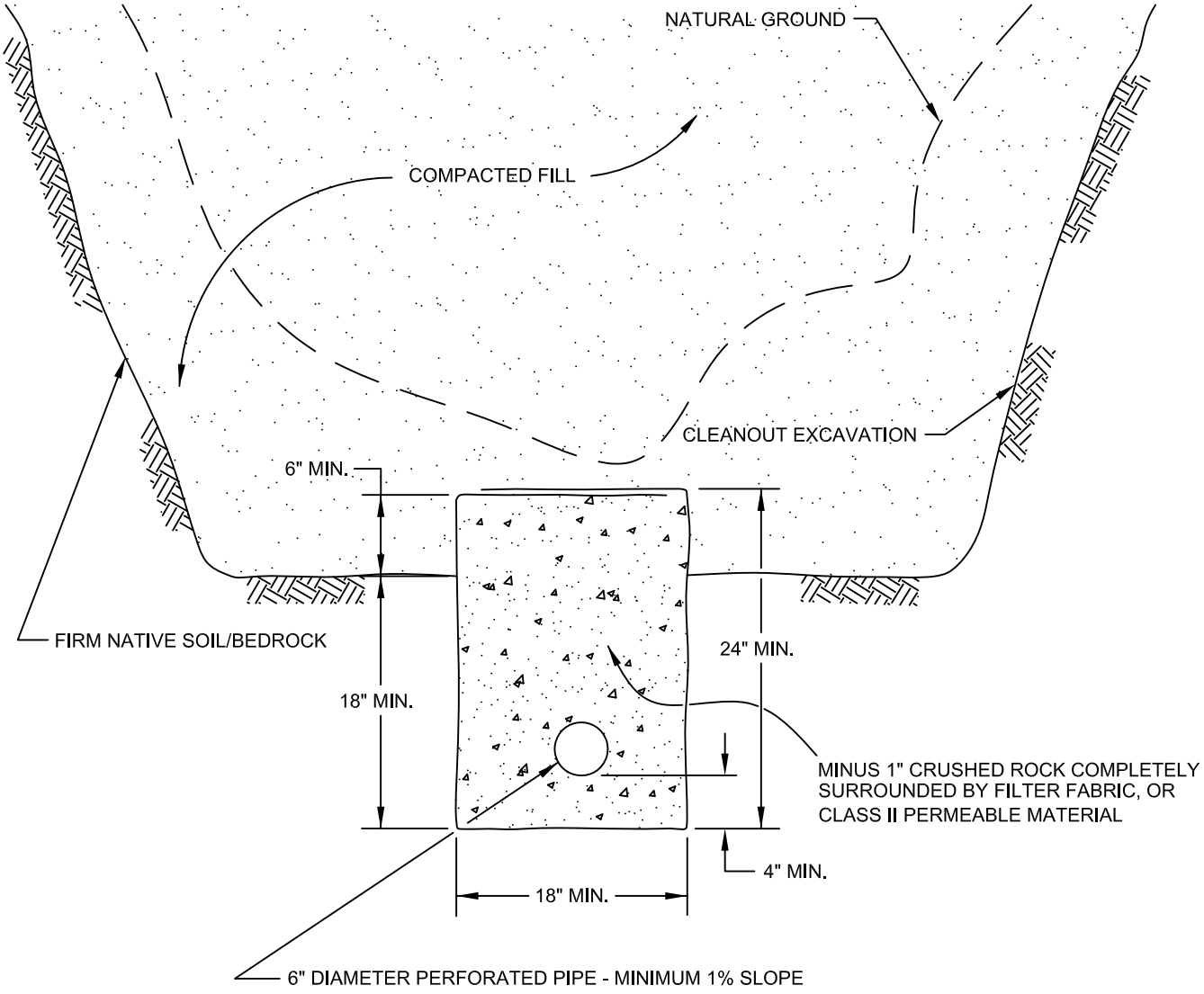
GRADING GUIDE SPECIFICATIONS

NOT TO SCALE

DRAWN: JAS
CHKD: GKM

PLATE D-2

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL



PIPE MATERIAL	DEPTH OF FILL OVER SUBDRAIN
ADS (CORRUGATED POLETHYLENE)	8
TRANSITE UNDERDRAIN	20
PVC OR ABS: SDR 35	35
SDR 21	100

SCHEMATIC ONLY
NOT TO SCALE

CANYON SUBDRAIN DETAIL

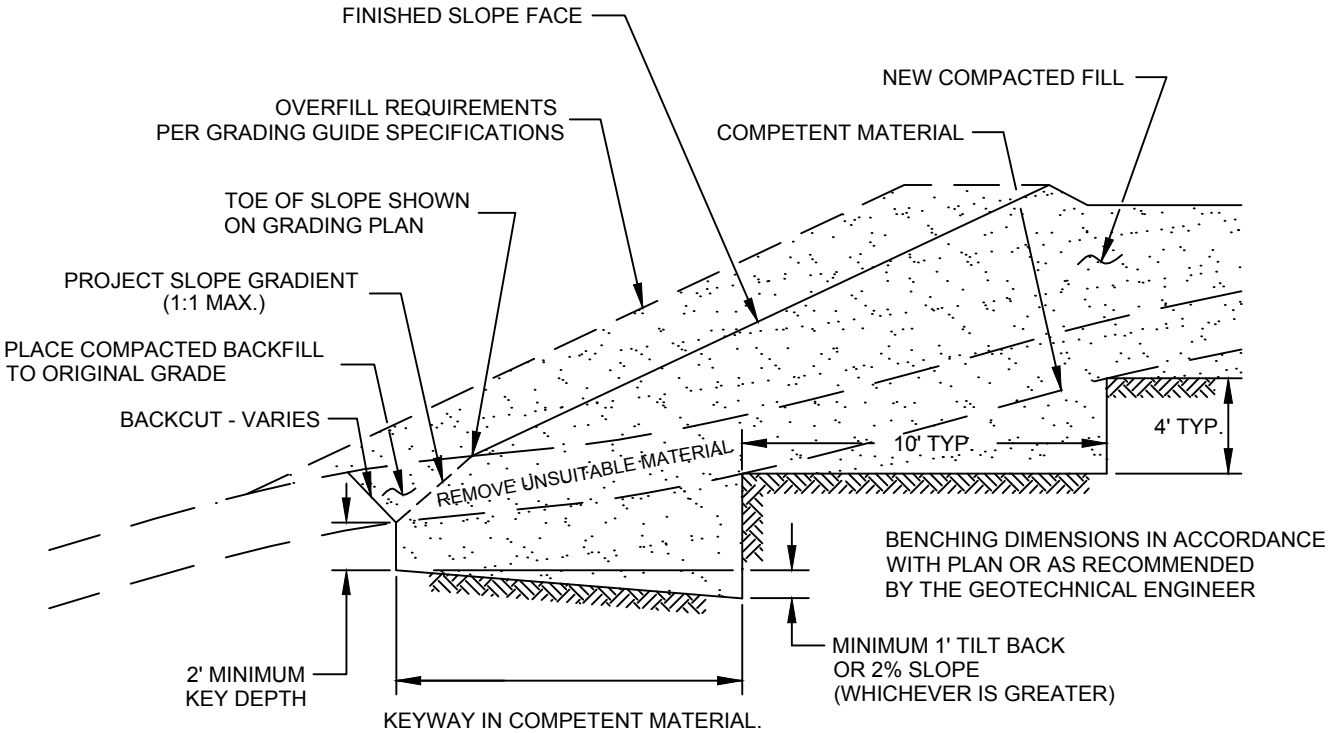
GRADING GUIDE SPECIFICATIONS

NOT TO SCALE

DRAWN: JAS
CHKD: GKM

PLATE D-3

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL



NOTE:
BENCHING SHALL BE REQUIRED WHEN NATURAL SLOPES ARE EQUAL TO OR STEEPER THAN 5:1 OR WHEN RECOMMENDED BY THE GEOTECHNICAL ENGINEER.

FILL ABOVE NATURAL SLOPE DETAIL

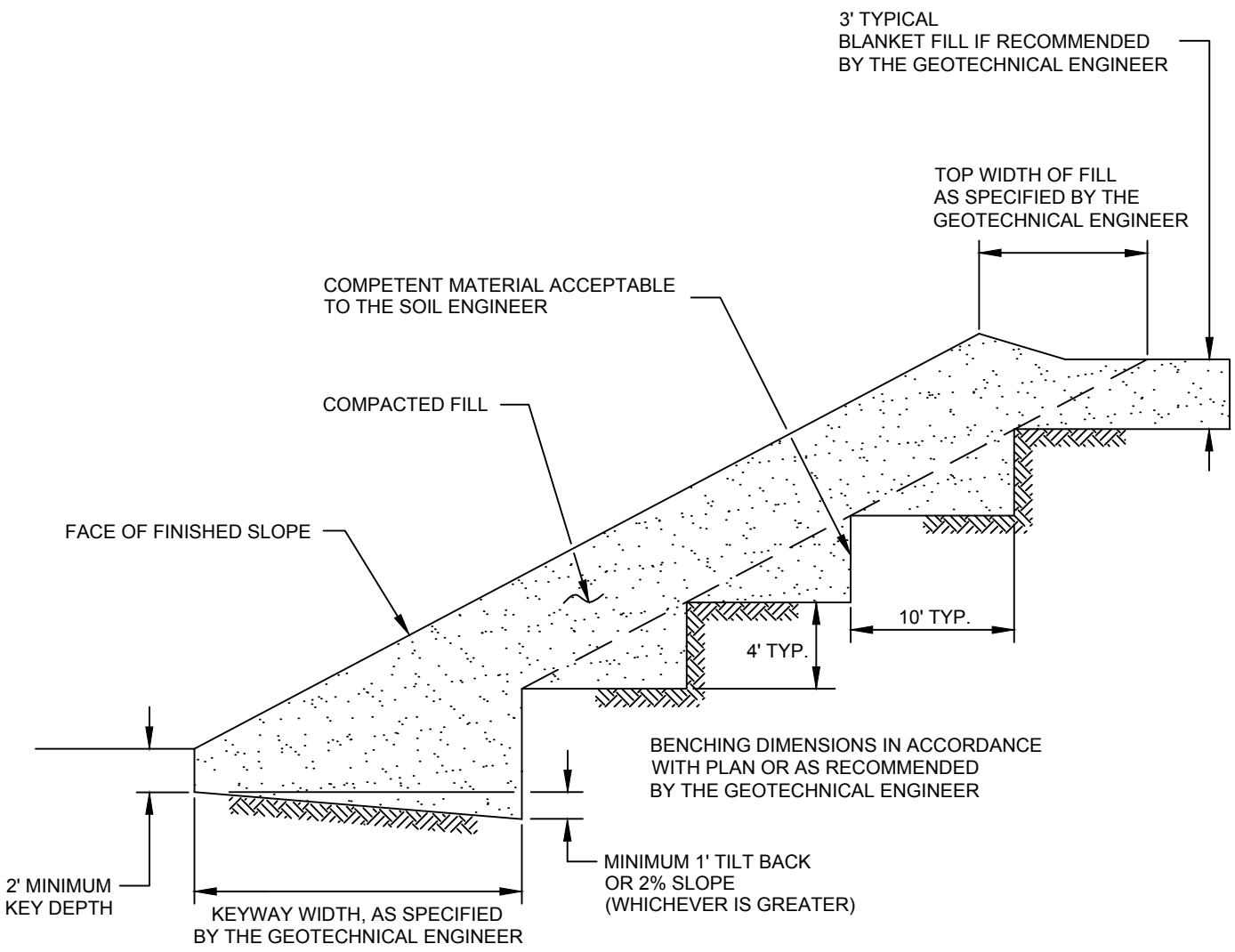
GRADING GUIDE SPECIFICATIONS

NOT TO SCALE

DRAWN: JAS
CHKD: GKM

PLATE D-4

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL



STABILIZATION FILL DETAIL

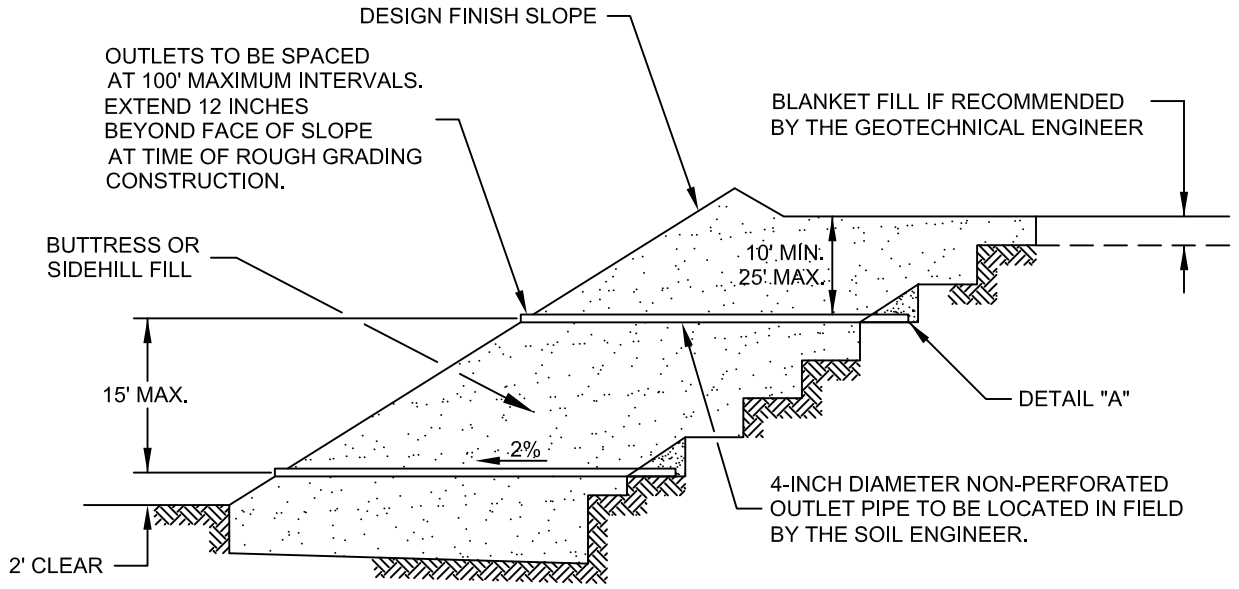
GRADING GUIDE SPECIFICATIONS

NOT TO SCALE

DRAWN: JAS
CHKD: GKM

PLATE D-5

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL



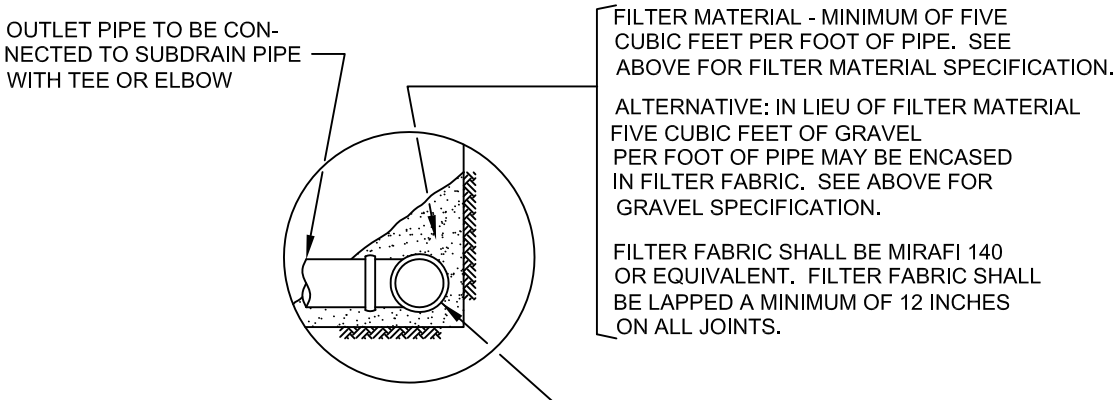
"FILTER MATERIAL" TO MEET FOLLOWING SPECIFICATION OR APPROVED EQUIVALENT: (CONFORMS TO EMA STD. PLAN 323)

SIEVE SIZE	PERCENTAGE PASSING
1"	100
3/4"	90-100
3/8"	40-100
NO. 4	25-40
NO. 8	18-33
NO. 30	5-15
NO. 50	0-7
NO. 200	0-3

"GRAVEL" TO MEET FOLLOWING SPECIFICATION OR APPROVED EQUIVALENT:

SIEVE SIZE	MAXIMUM PERCENTAGE PASSING
1 1/2"	100
NO. 4	50
NO. 200	8

SAND EQUIVALENT = MINIMUM OF 50



DETAIL "A"

NOTES:
1. TRENCH FOR OUTLET PIPES TO BE BACKFILLED WITH ON-SITE SOIL.

SLOPE FILL SUBDRAINS

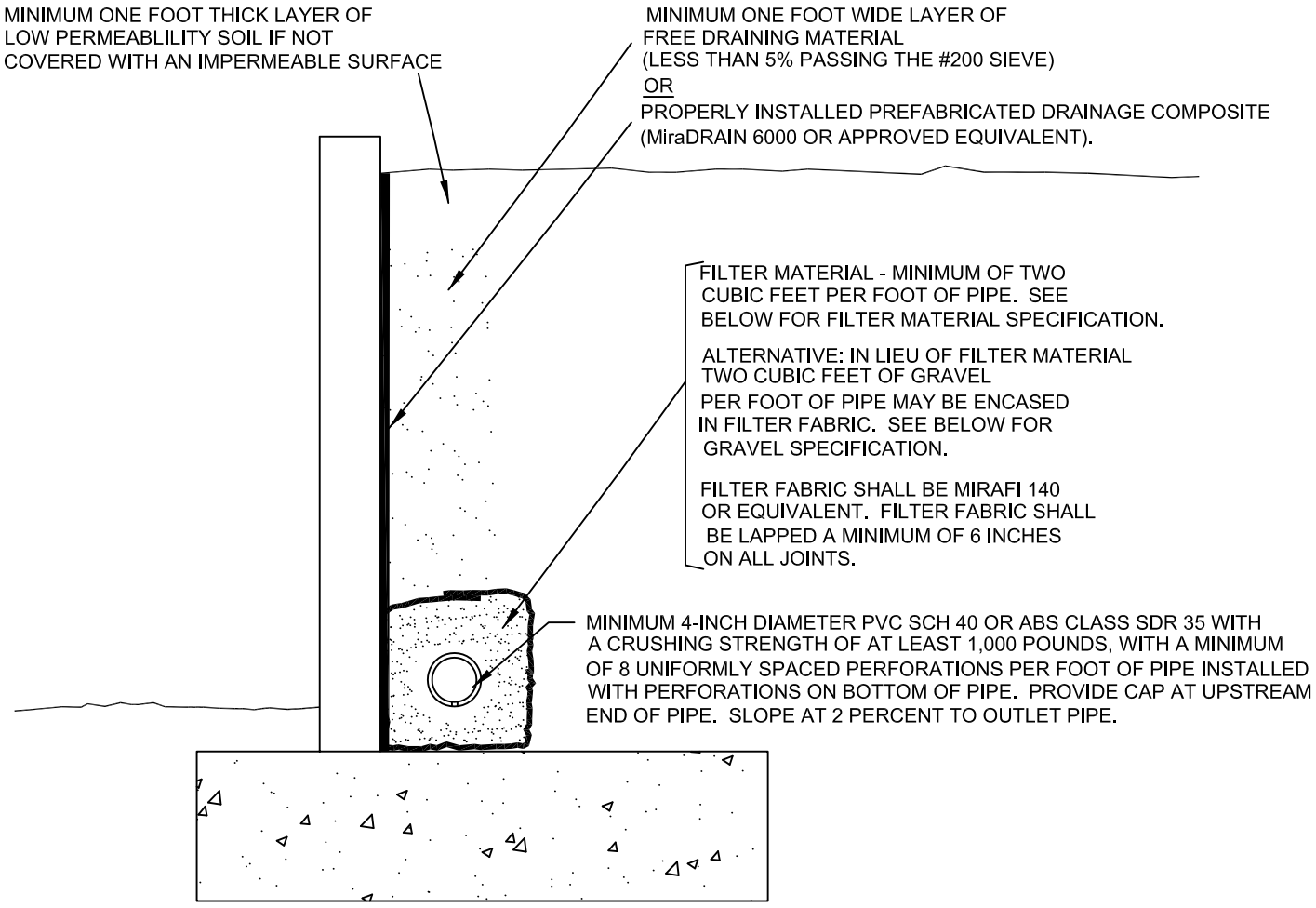
GRADING GUIDE SPECIFICATIONS

NOT TO SCALE

DRAWN: JAS
CHKD: GKM

PLATE D-6

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL



"FILTER MATERIAL" TO MEET FOLLOWING SPECIFICATION OR APPROVED EQUIVALENT: (CONFORMS TO EMA STD. PLAN 323)

SIEVE SIZE	PERCENTAGE PASSING
1"	100
3/4"	90-100
3/8"	40-100
NO. 4	25-40
NO. 8	18-33
NO. 30	5-15
NO. 50	0-7
NO. 200	0-3

"GRAVEL" TO MEET FOLLOWING SPECIFICATION OR APPROVED EQUIVALENT:

SIEVE SIZE	MAXIMUM PERCENTAGE PASSING
1 1/2"	100
NO. 4	50
NO. 200	8

SAND EQUIVALENT = MINIMUM OF 50

RETAINING WALL BACKDRAINS

GRADING GUIDE SPECIFICATIONS

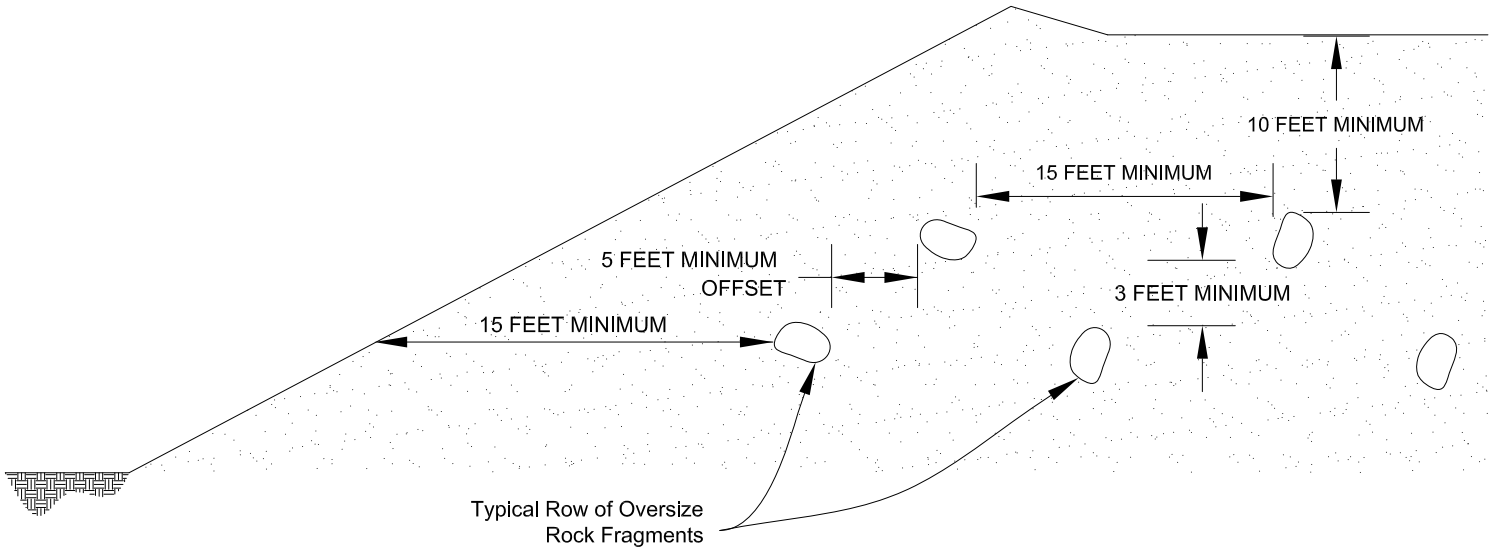
NOT TO SCALE

DRAWN: JAS
CHKD: GKM

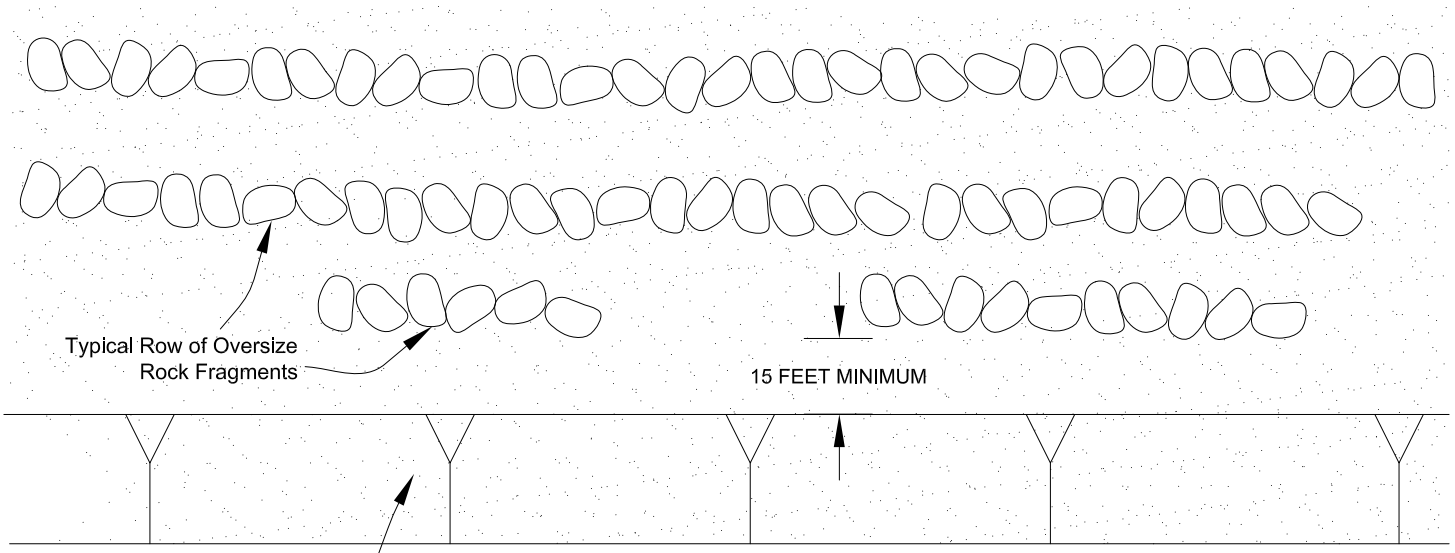
PLATE D-7

SoCalGeo

SOUTHERN CALIFORNIA GEOTECHNICAL



Section View



Plan View

PLACEMENT OF OVERSIZED MATERIAL

GRADING GUIDE SPECIFICATIONS

NOT TO SCALE

DRAWN: PM
CHKD: GKM

PLATE D-8

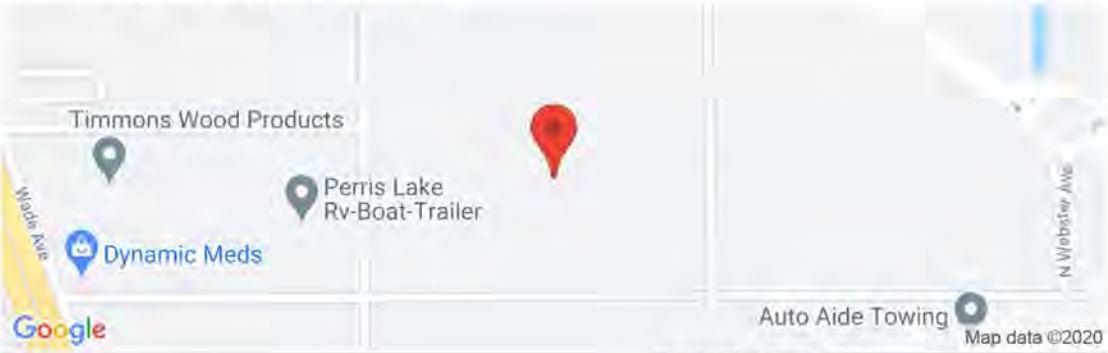
SoCalGeo

SOUTHERN CALIFORNIA GEOTECHNICAL

APPENDIX E

OSHPD

Latitude, Longitude: 33.856727, -117.250189



Date	12/17/2020, 2:39:54 PM
Design Code Reference Document	ASCE7-16
Risk Category	III
Site Class	D - Stiff Soil

Type	Value	Description
S_S	1.5	MCE_R ground motion. (for 0.2 second period)
S_1	0.576	MCE_R ground motion. (for 1.0s period)
S_{MS}	1.5	Site-modified spectral acceleration value
S_{M1}	null -See Section 11.4.8	Site-modified spectral acceleration value
S_{DS}	1	Numeric seismic design value at 0.2 second SA
S_{D1}	null -See Section 11.4.8	Numeric seismic design value at 1.0 second SA

Type	Value	Description
SDC	null -See Section 11.4.8	Seismic design category
F_a	1	Site amplification factor at 0.2 second
F_v	null -See Section 11.4.8	Site amplification factor at 1.0 second
PGA	0.5	MCE_G peak ground acceleration
F_{PGA}	1.1	Site amplification factor at PGA
PGA_M	0.55	Site modified peak ground acceleration
T_L	8	Long-period transition period in seconds
SsRT	1.546	Probabilistic risk-targeted ground motion. (0.2 second)
SsUH	1.653	Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration
SsD	1.5	Factored deterministic acceleration value. (0.2 second)
S1RT	0.576	Probabilistic risk-targeted ground motion. (1.0 second)
S1UH	0.631	Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration.
S1D	0.6	Factored deterministic acceleration value. (1.0 second)
PGAd	0.5	Factored deterministic acceleration value. (Peak Ground Acceleration)
C_{RS}	0.935	Mapped value of the risk coefficient at short periods
C_{R1}	0.912	Mapped value of the risk coefficient at a period of 1 s

SOURCE: SEAOC/OSHPD Seismic Design Maps Tool
<https://seismicmaps.org/>

SEISMIC DESIGN PARAMETERS - 2019 CBC

PROPOSED WAREHOUSE

PERRIS, CALIFORNIA

DRAWN: JAH
CHKD: RF

SCG PROJECT
20G239-3

PLATE E-1

SoCalGeo SOUTHERN CALIFORNIA GEOTECHNICAL

APPENDIX F

SOUTHERN CALIFORNIA GEOTECHNICAL

BORING NO. B-1

JOB NO.: 20G239-1
PROJECT: Proposed Warehouse
LOCATION: Perris, California

DRILLING DATE: 12/4/20
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Jamie Hayward

WATER DEPTH: Dry
CAVE DEPTH: 17 feet
READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
					YOUNGER ALLUVIUM: Brown Silty fine Sand, trace medium Sand, medium dense-damp							
		27					5					
					OLDER ALLUVIUM: Brown Silty fine to medium Sand, trace to little coarse Sand, dense to very dense-damp							
		75					5					
5												
		33					5					
		50/3"			@ 8½ feet, trace Clay, moist		8					
10												
					Brown fine Sandy Silt, dense-moist							
		32					13					
15												
					Dark Brown fine Sandy Silt, with interbedded layers of Silty Clay, very dense-damp							
		50/6"					8					
20												
					Brown Silty fine Sand to fine Sandy Silt, dense-damp							
		32					9					
25												
					Boring Terminated at 25'							

TBL 20G239-1.GPJ SOCALGEO.GDT 12/24/20

TEST BORING LOG

PLATE B-1

SOUTHERN CALIFORNIA GEOTECHNICAL

BORING NO. B-2

JOB NO.: 20G239-1
PROJECT: Proposed Warehouse
LOCATION: Perris, California

DRILLING DATE: 12/4/20
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Jamie Hayward

WATER DEPTH: Dry
CAVE DEPTH: 13 feet
READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
					YOUNGER ALLUVIUM: Brown Silty fine Sand, trace medium Sand, dense-dry							
		51				115	2					
					OLDER ALLUVIUM: Brown Clayey fine Sand, little Silt, trace medium Sand, very dense-damp							
		50/4"				122	5					
5		82/8"				117	8					
					Red Brown Silty fine to coarse Sand, cemented, very dense-damp							
		50/4"				103	8					
		50/4"				106	6					
10												
					Red Brown Silty fine Sand, trace Clay, dense-damp							
		39					6					
15												
					Brown Silty fine Sand to fine Sandy Silt, trace Clay, medium dense-moist							
		22					12					
20					Boring Terminated at 20'							

TBL 20G239-1.GPJ SOCALGEO.GDT 12/24/20

TEST BORING LOG

PLATE B-2

SOUTHERN CALIFORNIA GEOTECHNICAL

BORING NO. B-3

JOB NO.: 20G239-1
PROJECT: Proposed Warehouse
LOCATION: Perris, California

DRILLING DATE: 12/4/20
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Jamie Hayward

WATER DEPTH: Dry
CAVE DEPTH: 13 feet
READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
					YOUNGER ALLUVIUM: Brown Silty fine to medium Sand, medium dense-damp							
		24				103	4					
					OLDER ALLUVIUM: Brown Clayey fine Sand to fine Sandy Clay, medium dense to very dense, stiff to hard-damp to moist							
		22	4.5			120	12					
5		65	4.5			125	8					
		32/11"	4.5			131	8					
					Brown Silty fine Sand, little Clay, very dense-damp							
		97/9"				121	9					
10												
					Brown Clayey fine Sand, little Silt, dense-moist							
		32					12					
15												
					Brown Silty fine Sand, trace medium to coarse Sand, dense-moist							
		34					9					
20												
					Boring Terminated at 20'							

TBL 20G239-1.GPJ SOCALGEO.GDT 12/24/20

TEST BORING LOG **PLATE B-3**

SOUTHERN CALIFORNIA GEOTECHNICAL

BORING NO. B-4

JOB NO.: 20G239-1
PROJECT: Proposed Warehouse
LOCATION: Perris, California

DRILLING DATE: 12/4/20
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Jamie Hayward

WATER DEPTH: Dry
CAVE DEPTH: 16 feet
READING TAKEN: At Completion

DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
					FIELD RESULTS / LABORATORY RESULTS							
		50			YOUNGER ALLUVIUM: Brown fine Sandy Clay, little Silt, hard-damp	112	5					EI = 53 @ 0-5 feet
		29			Brown fine Sandy Silt, some Clay, medium dense-damp to moist	123	8					
5		25				118	10					
		30	4.5		OLDER ALLUVIUM: Brown fine Sandy Clay, little Silt, very stiff-damp to moist	130	11					
		26	4.5			118	15					
10												
		30			Gray Brown Clayey fine to coarse Sand, medium dense to dense-damp		11					
15												
		23			Brown Silty fine Sand, trace Clay, trace medium to coarse Sand, medium dense-damp to moist		7					
20					Boring Terminated at 20'							

TBL 20G239-1.GPJ SOCALGEO.GDT 12/24/20

TEST BORING LOG

PLATE B-4

SOUTHERN CALIFORNIA GEOTECHNICAL

BORING NO. B-5

JOB NO.: 20G239-1
PROJECT: Proposed Warehouse
LOCATION: Perris, California

DRILLING DATE: 12/4/20
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Jamie Hayward

WATER DEPTH: Dry
CAVE DEPTH: 15 feet
READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
		26			YOUNGER ALLUVIUM: Brown Silty fine Sand, trace Clay, trace medium Sand, medium dense-damp		4					
		34			@ 3½ feet, little Clay		6					
5		50/6"			OLDER ALLUVIUM: Brown Clayey fine Sand, trace medium Sand, slightly cemented, very dense-damp		6					
		68			Brown Silty fine Sand, little Clay, very dense-moist		9					
10												
		50/5"			@ 13½ feet, trace Clay, cemented		9					
15												
		31			@ 18½ feet, trace Clay, dense-damp		5					
20												
		50/5"					11					
25					Boring Terminated at 26'							

TBL 20G239-1.GPJ SOCALGEO.GDT 12/24/20

TEST BORING LOG

PLATE B-5

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. B-6

JOB NO.: 20G239-1
PROJECT: Proposed Warehouse
LOCATION: Perris, California

DRILLING DATE: 12/4/20
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Jamie Hayward

WATER DEPTH: Dry
CAVE DEPTH: 7 feet
READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
		18			YOUNGER ALLUVIUM: Brown Silty fine Sand, trace medium Sand, medium dense-damp		5					
		16			Brown Clayey fine Sand, little Silt, medium dense-damp		8					
5		50/4"			OLDER ALLUVIUM: Brown Silty fine Sand, trace Clay, very dense-damp to moist		11					
		50/6"					8					
10					Boring Terminated at 10'							

TBL 20G239-1.GPJ SOCALGEO.GDT 12/24/20

TEST BORING LOG **PLATE B-6**

SOUTHERN CALIFORNIA GEOTECHNICAL

BORING NO. B-7

JOB NO.: 20G239-1
PROJECT: Proposed Warehouse
LOCATION: Perris, California

DRILLING DATE: 12/4/20
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Jamie Hayward

WATER DEPTH: Dry
CAVE DEPTH: 6 feet
READING TAKEN: At Completion

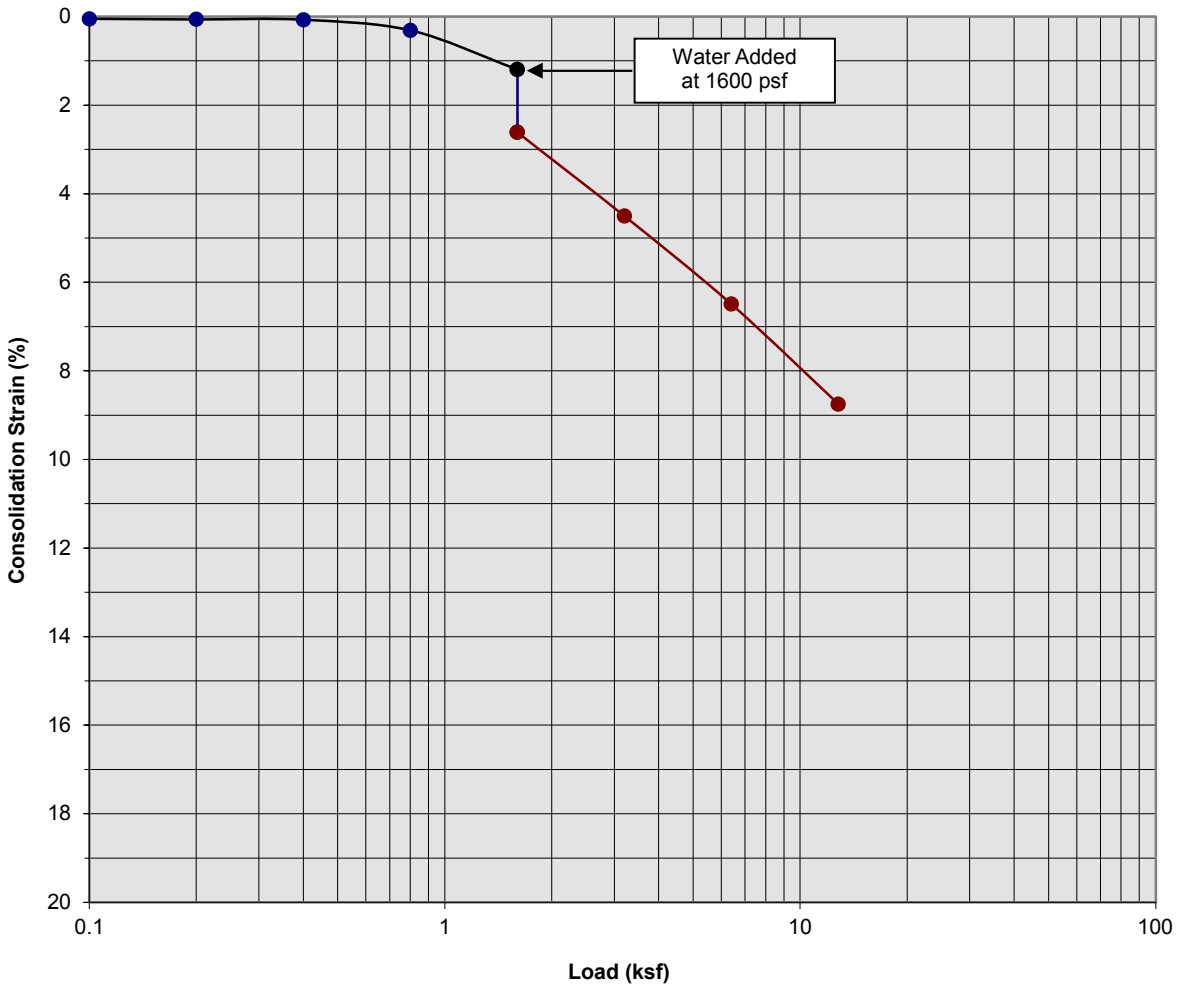
FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
					YOUNGER ALLUVIUM: Brown Silty fine Sand, trace fine root fibers, medium dense-damp		4					
		27			OLDER ALLUVIUM: Brown Clayey fine Sand, trace fine root fibers, medium dense to very dense-damp		6					
		32					6					
5												
		36					7					
		71					6					
10					Boring Terminated at 10'							

TBL 20G239-1.GPJ SOCALGEO.GDT 12/24/20

TEST BORING LOG

PLATE B-7

Consolidation/Collapse Test Results



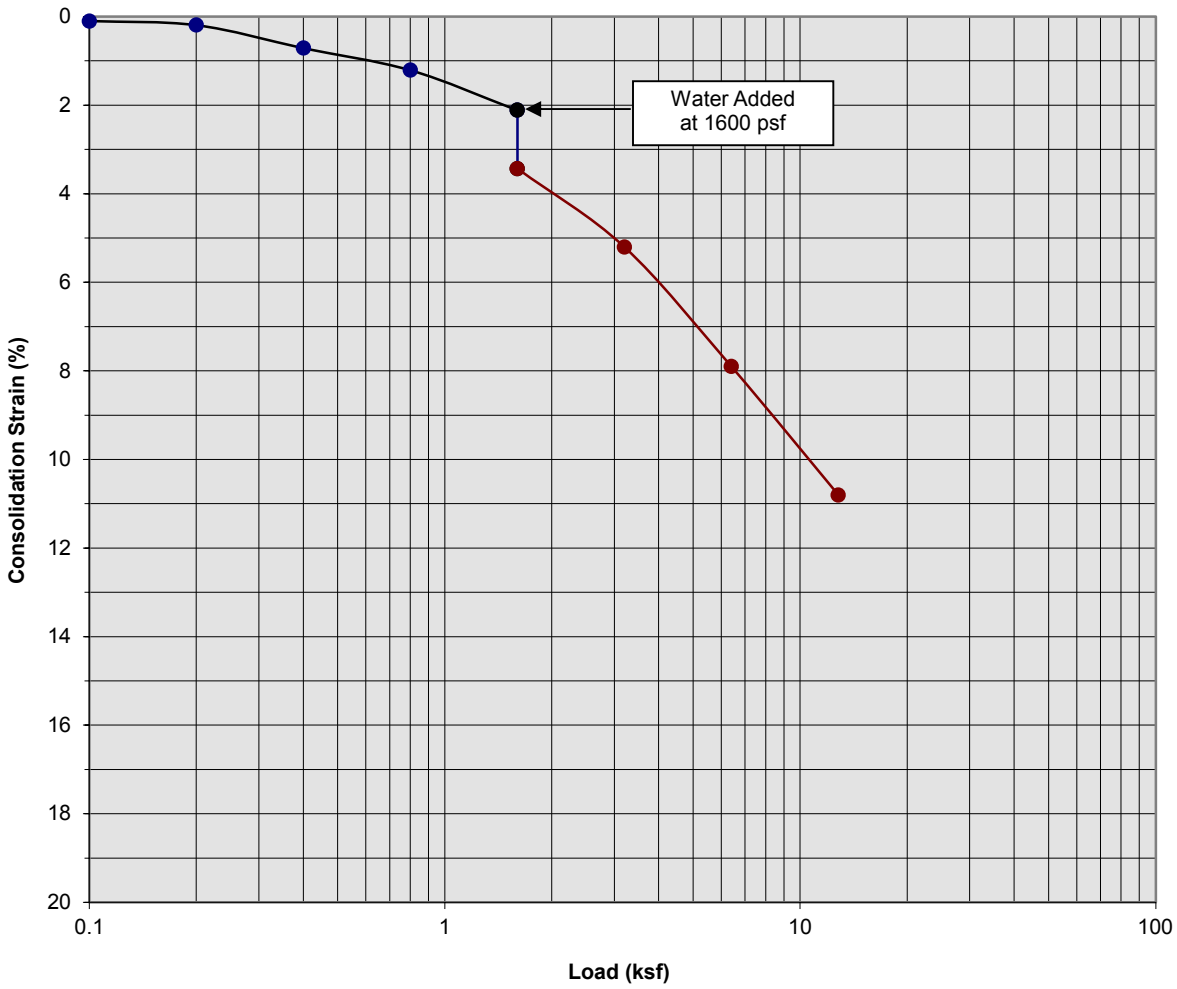
Classification: Brown fine Sandy Silt, some Clay

Boring Number:	B-4	Initial Moisture Content (%)	8
Sample Number:	---	Final Moisture Content (%)	13
Depth (ft)	3 to 4	Initial Dry Density (pcf)	123.3
Specimen Diameter (in)	2.4	Final Dry Density (pcf)	135.2
Specimen Thickness (in)	1.0	Percent Collapse (%)	1.42

Proposed Warehouse
Perris, California
Project No. 20G239-1
PLATE C-1

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

Consolidation/Collapse Test Results



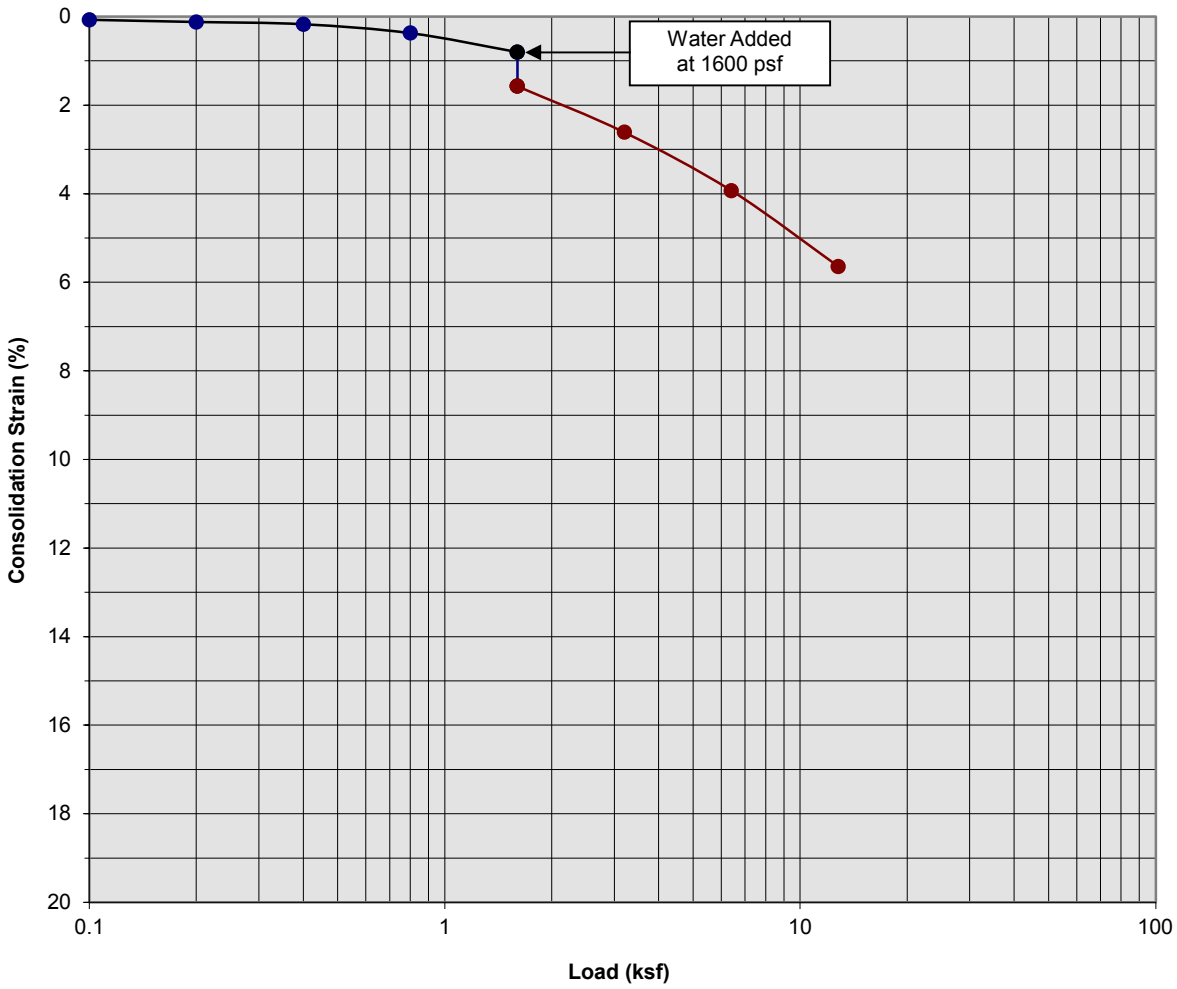
Classification: Brown fine Sandy Silt, some Clay

Boring Number:	B-4	Initial Moisture Content (%)	10
Sample Number:	---	Final Moisture Content (%)	14
Depth (ft)	5 to 6	Initial Dry Density (pcf)	118.0
Specimen Diameter (in)	2.4	Final Dry Density (pcf)	132.3
Specimen Thickness (in)	1.0	Percent Collapse (%)	1.32

Proposed Warehouse
Perris, California
Project No. 20G239-1
PLATE C-2

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

Consolidation/Collapse Test Results



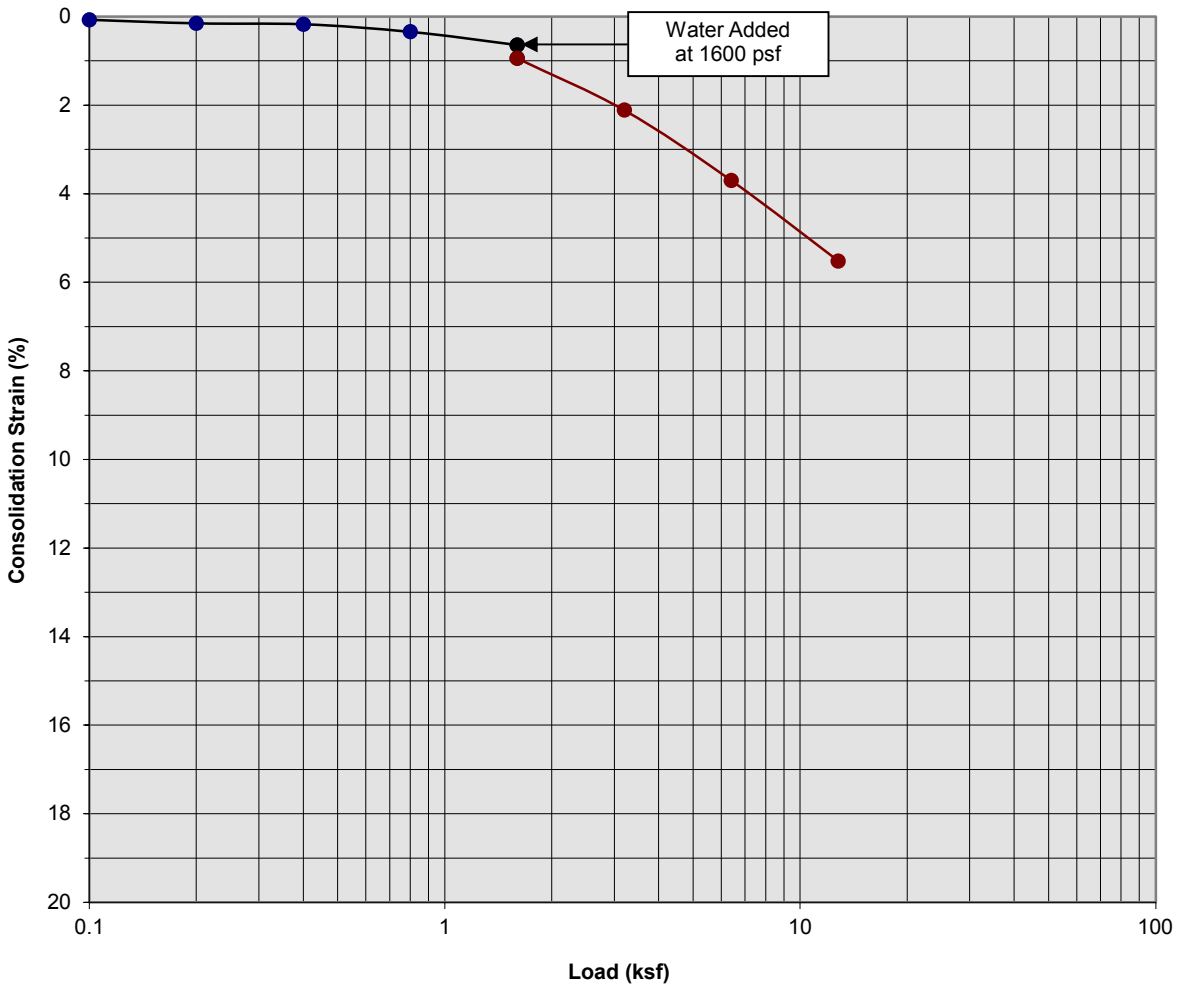
Classification: Brown fine Sandy Clay, little Silt

Boring Number:	B-4	Initial Moisture Content (%)	11
Sample Number:	---	Final Moisture Content (%)	13
Depth (ft)	7 to 8	Initial Dry Density (pcf)	130.0
Specimen Diameter (in)	2.4	Final Dry Density (pcf)	137.6
Specimen Thickness (in)	1.0	Percent Collapse (%)	0.77

Proposed Warehouse
Perris, California
Project No. 20G239-1
PLATE C-3

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

Consolidation/Collapse Test Results



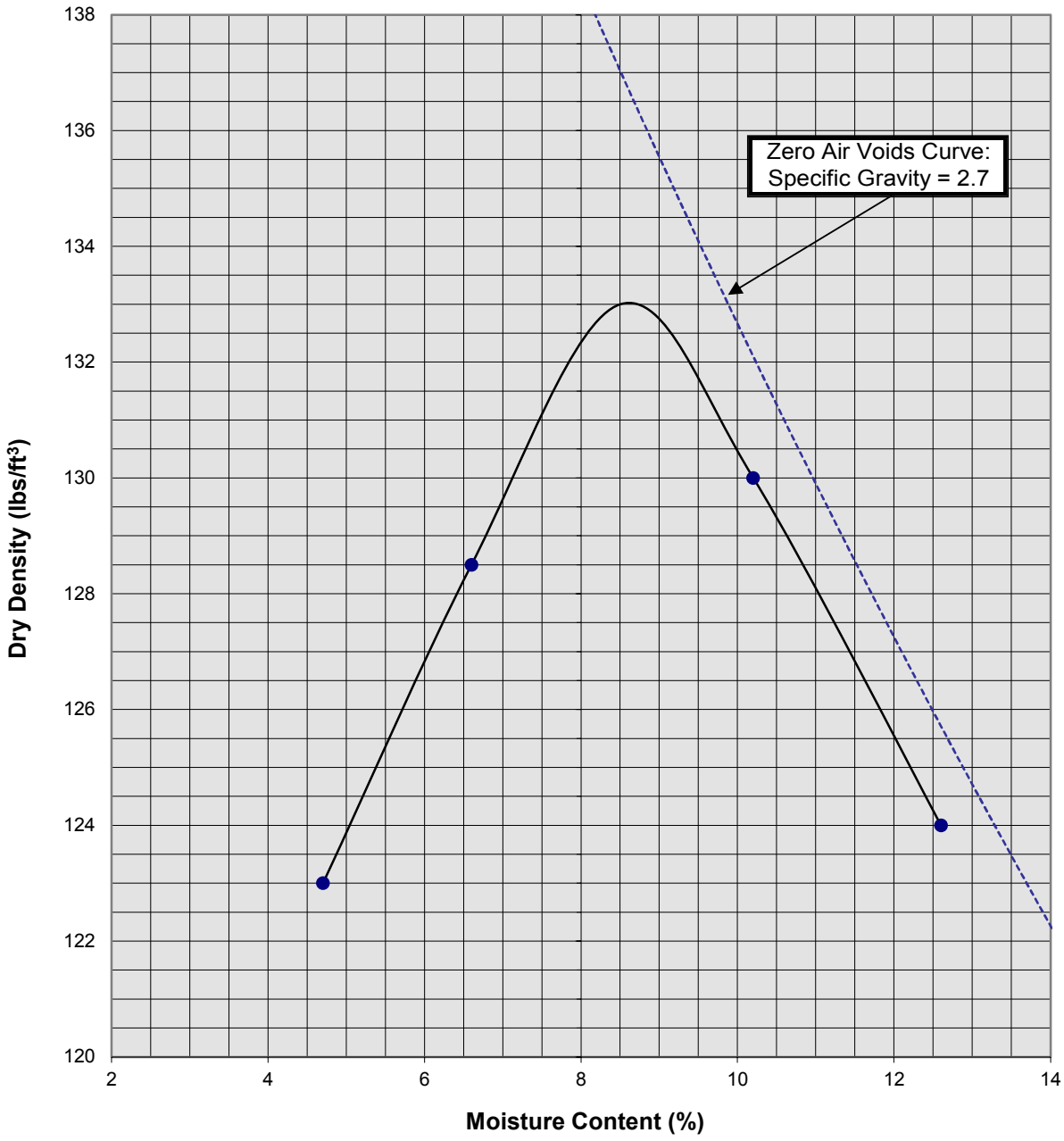
Classification: Brown fine Sandy Clay, little Silt

Boring Number:	B-4	Initial Moisture Content (%)	15
Sample Number:	---	Final Moisture Content (%)	15
Depth (ft)	9 to 10	Initial Dry Density (pcf)	117.9
Specimen Diameter (in)	2.4	Final Dry Density (pcf)	124.7
Specimen Thickness (in)	1.0	Percent Collapse (%)	0.30

Proposed Warehouse
Perris, California
Project No. 20G239-1
PLATE C-4

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

Moisture/Density Relationship
ASTM D-1557



Soil ID Number	B-2 @ 0 to 5'
Optimum Moisture (%)	8.5
Maximum Dry Density (pcf)	133
Soil Classification	Brown Clayey fine to medium Sand, trace Silt

Proposed Warehouse
Perris, California
Project No. 20G239-1
PLATE C-5

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

Appendix 4: Historical Site Conditions

Phase I Environmental Site Assessment or Other Information on Past Site Use

PHASE I ENVIRONMENTAL SITE ASSESSMENT UPDATE

39 Parcels at
4946-4800 Patterson Avenue
Perris, California 92571

093-DUKE-054.1

Prepared For:

Duke Realty
200 Spectrum Drive, Suite 1600
Irvine, California 92618

Prepared By:

3478 Buskirk Avenue, Suite 100
Pleasant Hill, CA 94523

December 20, 2021

Prepared and Reviewed By:

Suzanne Nase
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Nathan Colton
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EXECUTIVE SUMMARY

Apex Companies, LLC (Apex) performed a Phase I Environmental Site Assessment (ESA) update of the property located at 4946-4800 Patterson Avenue, Perris, California (Subject Property) on behalf of Duke Realty (Duke). Apex performed a Phase I ESA for the Subject Property, dated August 31, 2021. On December 9, 2021, Duke requested an updated Phase I ESA to be performed on the Subject Property to include adjacent parcels located to the southwest.

The Subject Property comprises 39 parcels at the northeast and southeast corners of Patterson Avenue and Nance Street. The parcels are listed with the Riverside County Assessor's office as assessor parcel numbers (APN) 314-015-015 through 314-015-040, 314-015-042, 314-015-044, 314-015-046, 314-015-048, 314-016-005 through 314-016-012, and 314-016-33 (formerly referenced as parcels 314-016-003 and -004).

The Subject Property parcels are all currently unimproved and vacant, apart from one, three-parcel lot in the northwest corner. The parcel in the northwest corner of the Subject Property is currently utilized for semi-truck trailer storage. The objective of this ESA was to identify recognized environmental conditions (RECs) in connection with the Subject Property.

Apex performed this ESA in accordance with the proposal dated July 7, 2021 and the American Society and Testing Materials (ASTM) E1527-13 and the U.S. Environmental Protection Agency's Standards and Practices for All Appropriate Inquiries, 40 Code of Federal Regulations (CFR) 312. The findings, opinions and conclusions of this ESA are for the confidential and exclusive use of Duke, its affiliates, employees, agents, successors, and assigns. Reliance on this report for any use by parties other than specifically stated is prohibited without the express written consent of Apex and Duke, and such use is at the sole risk of the User. Any exceptions to, or deletions from, this practice are described in Section 1.0 of this report.

Apex reviewed the available environmental and historical records for the Subject Property according to ASTM E1527-13 Standards. Based on physical setting source review, environmental records review, and historical use records, no RECs were identified.

Apex did not identify any RECs during the site reconnaissance associated with the Subject Property.

The Subject Property has historically been used for agricultural purposes dating from prior to 1938 until between 2009-2012. Organochlorine pesticides (OCPs) were used extensively from the 1940s through the 1960s in the agricultural industry. Arsenic may also be found in historically agricultural soils. OCPs and arsenic in soils are a Business Environmental Risk (BER) to the property.

Based these findings, Apex recommends collecting 4 surface (0-0.5 feet below ground surface) at a minimum in each quarter of the Subject Property and have them analyzed for OCPs and metals for worker soil handling safety purposes.

A possible water-well was identified on the historic topographic maps from 1967 through the most recent 2012 map, located on the southeast corner, south of Nance Street. A record search was performed to determine the status of the well. No records were found. A water-well is considered a

potential preferential pathway to subsurface groundwater. Apex considers the water-well to be a BER, and recommends performing an investigation to determine if the well is still present on the Subject Property. If the well is found it should be properly abandoned.

TERMINOLOGY

This section contains definitions for technical terms used in the report. Italicized terms are defined in the American Society and Testing Materials (ASTM) Standard Practice E 1527-13 and provided below for easy reference.

Recognized Environmental Condition (REC): "The presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment. De minimis conditions are not recognized environmental conditions."

Historical Recognized Environmental Condition (HREC): "A past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls). Before calling the past release a HREC, the environmental professional (EP) must determine whether the past release is a REC at the time the Phase I Environmental Site Assessment (ESA) is conducted (for example, if there has been a change in regulatory criteria). If the EP considers the past release to be a REC at the time the Phase I ESA is conducted, the condition shall be included in the conclusions section of the report as a REC."

Controlled Recognized Environmental Condition (CREC): "A REC resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (for example, as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by the regulatory authority), with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls). A condition considered by the EP to be a CREC shall be listed in the findings section of the Phase I ESA report, and as a REC in the conclusions section of the Phase I ESA report."

De minimis condition: "A condition that generally does not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. Conditions determined to be de minimis conditions are not RECs nor controlled recognized environmental conditions."

Business Environmental Risk (BER): "A risk which can have a material environmental or environmentally-driven impact on the business associated with the current or planned use of a parcel of commercial real estate, not necessarily limited to those environmental issues required to be investigated in this practice. Consideration of business environmental risk issues may involve addressing one or more non-scope considerations."

Data Gap: "A lack of or inability to obtain information required by this practice despite good faith efforts by the EP to gather such information. Data gaps may result from incompleteness in any of the activities required by this practice, including, but not limited to site reconnaissance (for example, an inability to conduct the site visit), and interviews (for example, an inability to interview the key site manager, regulatory officials, etc.)".

LIST OF ACRONYMS

AAI	All Appropriate Inquiries
Amsl	above mean sea level
APEX	Apex Companies, LLC
APN	Assessor's Parcel Number
AST	Aboveground Storage Tank
AUL	Activity and Use Limitations
ASTM	American Society and Testing Materials
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System
CERS	California Environmental Reporting System
CFR	Code Federal of Regulations
CHMIRS	California Hazardous Material Incident Reporting System
CIWQS	California Integrated Water Quality System
CPS	Cleanup Program sites
CREC	Controlled Recognized Environmental Condition
DEED	Design in Engineering Education Division
DTSC	Department of Toxic Substances Control
DUKE	Duke Realty
DWR	Department of Water Resources
ECHO	Enforcement & Compliance History Information
EDR	Environmental Data Resources, Inc.
EMI	Emission Inventory Data
EP	Environmental Professional
EPA	Environmental Protection Agency
ERNS	Emergency Response Notification System
ESA	Phase I Environmental Site Assessment
FEMA	Emergency Management Agency
FINDS	Facility Index System
FIRM	Flood Insurance Rate Map

FWS	Fish and Wildlife Services
HAZNET	Hazardous Waste Information System
HREC	Historical Recognized Environmental Condition
HWT	Hazardous Waste Transporter
LQG	Large Quantity Generator
LUST	Leaking Underground Storage Tank
NFRAP	No Further Remedial Action Planned
NRCS	Natural Resources Conservation Service
OCP	Organochlorine pesticides
PCB	Polychlorinated Biphenyls
RCRA	Resource Conservation and Recovery Act
REC	Recognized Environmental Condition
RWQCB	Regional Water Quality Control Board
SEMS	Superfund Enterprise Management Services
SFRWQCB	San Francisco Bay Area Regional Water Quality Control Board
SLIC	Spills, Leaks, Investigation, and Cleanup
SQG	Small Quantity Generator
SWEEPS	Statewide Environmental Evaluation and Planning System
TSDF	Treatment, Storage, and Disposal Facility
USDA	United States Department of Agriculture
USGS	United States Geological Society
UST	Underground Storage Tank
VSQG	Very Small Quantity Generator

1.0 INTRODUCTION

1.1 Purpose

Apex Companies, LLC (Apex) has prepared this Phase I Environmental Site Assessment (ESA) update at the request of the Duke Realty (Duke). Apex performed a Phase I ESA of the property located at 4946-4800 Patterson Avenue, Perris, California (Subject Property), dated August 31, 2021 (**Figure 1**). On December 9, 2021, Duke requested an updated Phase I ESA to be performed on the Subject Property to include additional parcels located to the southwest. A map of the Subject Property is provided as **Figure 2**.

The purpose of the ESA is to identify *recognized environmental conditions (RECs)* that may pose potential environmental risks associated with the Subject Property, which encompasses 39 parcels at the northeast and southeast corners of Patterson Avenue and Nance Street in Perris, California.

1.2 Scope of Services

This ESA was conducted in good commercial and customary practice by utilizing the American Society and Testing Materials (ASTM) E1527-13 "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process" and the U.S. Environmental Protection Agency's (EPA) Standards and Practices for All Appropriate Inquiries (AAI), 40 Code of Federal Regulations (CFR), Part 312. The scope of services performed were in accordance with the proposal dated July 7, 2021 and included evaluation of the following:

- Environmental databases to determine the likelihood of current and historical releases of hazardous substances and petroleum through storage, treatment, and/or disposal on or near the Subject Property where migration could occur;
- Subject Property's history through prior reports on the GeoTracker database, interviews, historical aerial photographs, topographic maps, fire insurance maps, city directories, building permits, and the preliminary title report provided by the User;
- The Subject Property's current conditions by conducting an on-site survey of the Subject Property and visual evaluation of surrounding properties, and conducting interviews with representatives of regulatory agency(s), current property owner/operator, and/or consultants for owner/operator, and
- Physical characteristics of the Subject Property including hydrologic and soil data through available environmental files from local agencies including the California Regional Water Quality Control Board (RWQCB), California Department of Toxic Substances Control (DTSC), City of San Jose, Santa Clara County, Santa Clara Valley Water District, and other appropriate agencies.

Any RECs, *historical RECs* (HREC) or *controlled RECs* (CREC), as defined by ASTM E1527-13, that were identified during the assessment are discussed in the findings and conclusions sections of this report.

1.3 Significant Assumptions

Apex has performed the historical and environmental record searches in accordance with current ASTM and industry practice. The data, findings, and conclusions presented in this ESA are based upon a detailed search, review, and analysis of the documents and interviews as well as observations made during the site reconnaissance. Conclusions reached regarding the conditions of the Subject Property do not represent a warranty that all areas within the Subject Property are of a similar quality as may be inferred from observable conditions and available history of the Subject Property. As stated in the ASTM Standard, no ESA can wholly eliminate uncertainty regarding the potential for environmental liability in connection with the Subject Property. Apex's evaluation and analysis are intended to reduce, not eliminate, the potential for conditions that result in liability for the User of this ESA.

1.4 Limitations and Exceptions

This report was prepared as a result of a contractual agreement that defined the approach and scope of services to be employed during the course of the investigation. The opinions and conclusions expressed in this study have been based strictly on the results of these contracted services. The scope of this ESA is intended to aid in the evaluation of RECs. The services provided by Apex should not be construed as a warranty or guarantee that no RECs exist at the Subject Property or that all RECs have been uncovered. No conclusions are stated or implied concerning the suitability of the Subject Property for its eventual use. This document is not intended for purposes other than those expressly set forth herein or for use by parties other than for whom it has been prepared.

As outlined in the ASTM Standard for ESAs and Apex's scope of work, this project was non-intrusive in nature and did not include any sampling or testing of soils, groundwater, surface water, or other materials. Additionally, unless specifically described in this report, Apex's scope of work explicitly excluded issues that are outside the scope of ASTM E1527-13 which would constitute a business environmental risk as defined by ASTM. The ASTM Standard Practice E1527-13 recognizes, but not limited to, the following inherent limitations for this ESA:

- Uncertainty is Not Eliminated - No ESA can wholly eliminate uncertainty regarding the potential for RECs in connection with a property. Performance of this practice is intended to reduce, but not eliminate, uncertainty regarding the potential for RECs, and this practice recognizes reasonable limits of time and cost.
- Not Exhaustive - All Appropriate Inquiry does not mean an exhaustive assessment of a property. There is a point at which the cost of information obtained, or the time required to gather it outweighs the usefulness of the information and, in fact, may be a material detriment to the orderly completion of transactions.
- Level of Inquiry Is Variable - Not every property will warrant the same level of assessment. Consistent with good commercial or customary practice, the appropriate level of

environmental site assessment will be guided by the type of property, the expertise and risk tolerance of the user, and the information developed in the course of the inquiry.

In general, the EPA does not regulate indoor air quality except to the extent that indoor air impacts are caused by releases of hazardous substances into subsurface soil or groundwater (vapor intrusion). ASTM E1527-13 defines "migrate" and "migration" as referring to the movement of hazardous substances or petroleum products in any form, including solid and liquid at the surface or subsurface, and vapor in the subsurface. Vapor migration in the subsurface is described in Guide E2600 – Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions; however, nothing in ASTM E1527-13 requires application of the Guide E2600 to achieve compliance with all appropriate inquiries.

An ESA completed less than 180 days prior to the date of acquisition of the property or (for transactions not involving an acquisition) the date of the intended transaction, is presumed to be valid. An ESA meeting or exceeding this practice and for which the information was collected or updated within one year prior to the date of the intended transaction, may be used provided that the following components of the ESA were conducted or updated within 180 days of the date of purchase or the date of the intended transaction:

- interviews with owners, operators, and occupants;
- searches for recorded environmental cleanup liens;
- reviews of federal, tribal, state, and local government records;
- visual inspections of the property and of adjoining properties, and
- the declaration by the environmental professional (EP) responsible for the assessment or update.

1.5 Special Terms and Conditions

This project was performed in accordance with the scope of work, terms and conditions and limitations stated in the proposal dated July 7, 2021, and as stated in this report. There are no other special terms or conditions concerning this project.

1.6 User Reliance

This report documents the ESA of the Subject Property performed by Apex in accordance with the proposal and in accordance with ASTM E1527-13 and the U.S. EPA Standards and Practices for All Appropriate Inquiries, 40 CFR 312. The findings, opinions and conclusions of this Phase I ESA are for the confidential and exclusive use of Duke, its affiliates, employees, agents, successors, and assigns. Reliance on this report for any use by parties other than specifically stated is prohibited without the express written consent of Apex and Duke, and such use is at the sole risk of the user.

1.7 Data Gaps

Available historical information enabled Apex to identify the first developed use of the property and at approximately five-year intervals to the present, such that significant data gaps were not encountered.

2.0 SITE DESCRIPTION

2.1 Subject Property Location and Ownership

The Subject Property is approximately 39 acres located in Perris, California in Riverside County. The Subject Property comprises 39 parcels at the northeast and southeast corners of Patterson Avenue and Nance Street in Perris, California as depicted in **Figure 1**. The official addresses of the parcels at the Subject Property are 4946-4800 Patterson Avenue, Perris, California 92571. The parcels are listed with the Riverside County Assessor's office as assessor parcel numbers (APN) 314-015-015 through 314-015-040, 314-015-042, 314-015-044, 314-015-046, 314-015-048, 314-016-005 through 314-016-012, and 314-016-33 (formerly referenced as parcels 314-016-003 and -004).

2.2 Current Uses and Improvements of Subject Property

The Subject Property consists of 39 parcels that are all currently unimproved and vacant, apart from one three-parcel lot in the northwest corner. The parcel in the northwest corner of the Subject Property is currently utilized for semi-truck trailer storage. Photographs taken during the Site Reconnaissance can be viewed in **Appendix A** which shows current uses and improvements of the Subject Property.

2.3 Current Land Uses of Adjoining and Surrounding Properties

The Subject Property is located in a mixed commercial, industrial and residential land use area (**Figure 2**). The Subject Property is bounded to the west by several commercial businesses including Perris Lake RV, Boat and Trailer, a warehouse to the south, recreational marijuana dispensaries to the north, and lastly, private residences and vacant, unimproved land to the east. Apex's visual and record review of adjoining and surrounding properties did not identify any current uses that are considered to be a REC with respect to the Subject Property.

TABLE 2-1: Adjacent and Surrounding Properties

Direction	Description
South	A warehouse.
West	Patterson Avenue, with residential and RV and Boat Storage beyond.
North	Commercial businesses, including High Season Dispensary, Green America, and Canna Cloud.
East	Private residences and vacant, unimproved land.

3.0 USER PROVIDED INFORMATION

This section summarizes the information provided by the User, Duke Realty (Duke), for this Phase I ESA. A User Questionnaire was prepared and sent to Duke to help retrieve the needed information and assist in gathering appropriate information that may help identify potential RECs on the property. A completed questionnaire was not received. Based on data obtained through other means, this is not considered a data gap.

4.0 RECORDS REVIEW

This section summarizes all records obtained by Environmental Data Resources, Inc. (EDR) and reviewed by Apex to help identify RECs in connection with the Subject Property. The first section (Section 4.1) discusses the physical setting sources that will provide an understanding of the physical characteristics of the Subject Property and surrounding area. This important information will help determine likelihood of potential of contaminants migrating onto the Subject Property from surrounding properties with environmental contaminants. The EDR Radius Map Report is presented in **Appendix B**.

4.1 Physical Setting Sources

Although the ASTM E1527-13 Standards only require a current U.S. Geological Survey (USGS) 7.5-Minute Topographic Map for analysis, that is not enough information to fully characterize the physical setting of the Subject Property. Apex utilized several sources to understand the physical properties of the Subject Property and surrounding area, as shown in **Table 4-1**. This information helps determine the likelihood of hazardous substances and/or petroleum contaminants migrating from surrounding areas through the soil and groundwater onto the Subject Property.

TABLE 4-1: Physical Setting Sources

Data Type	Data Source
Topography	United States Geological Survey (USGS) 7.5-minute topographic maps provided by EDR
Floodplain	Federal Emergency Management Agency (FEMA), Flood Insurance Rate Map
Wetlands	Fish and Wildlife Service (FWS) National Wetlands Inventory (http://www.fws.gov/wetlands/data/mapper.html)
Soils	United States Department of Agriculture (USDA) – Natural Resources Conservation Service (NRCS) Web Soil Survey (WSS) (http://websoilsurvey.nrcs.usda.gov/app/) 2020.
Geology	California Department of Water Resources (DWR), 1961. Bulletin No. 118, California's Groundwater.

4.1.1 Topography

According to the U.S. Geological Survey (USGS) California 7.5-minute topographic maps, the Subject Property is located at an elevation of approximately 1,500 feet above mean sea level (ft amsl). Regional topography is relatively flat with a gentle slope to the east.

4.1.2 Geology and Soils

The Subject Property is located in the northern end of the Peninsular Range geomorphic province as defined by the California Division of Mines and Geology. The Subject Property lies between the Elsinore-Chino fault zone to the southwest, and the San Jacinto fault zone to the northeast. The area between these two faults is known as the Perris Block or Perris Plain (TETC, 1994). Tectonic movement along these fault zones has occurred recently and is predominantly right-lateral strike-slip accompanied by a smaller component of dip-slip movement. Strike-slip movement along these faults ranges from 3 to 18 miles since the mid-Cretaceous time, with vertical displacement of several hundred to a few thousand feet (TETC, 1994).

The area surrounding the Subject Property is characterized by rugged mountains of igneous and metamorphic rock, broad erosional plains composed of heavily eroded sedimentary and crystalline basement rocks, and a broad, flat valley consisting of younger alluvial material. The U.S. Department of Agriculture's (USDA) Soil Conservation Service lists local soils at the Subject Property as predominantly RaA - Ramona sandy loam, which the USDA describes as well-drained granitic alluvial fan deposits (USDA, 2020).

4.1.3 Hydrology and Hydrogeology

The Subject Property is located in the Perris Valley where coarse-grained alluvial deposits comprise the primary aquifer. These deposits are highly permeable and capable of yielding large amounts of water under unconfined conditions. The permeability of the alluvium varies both laterally and vertically (TETC 1994). Based on subsurface characterization studies completed at the nearby March Air Force Base facility, roughly 2.5 miles north of the Subject Property, it appears the regional shallow subsurface is composed primarily of bedded alluvial deposits, with deeper saprolite soils derived from granitic parent rock. The saprolite soils are penetrated by bedrock outcrops, which indicate a thin layer of soil overlying the bedrock and weathered bedrock.

Regional groundwater yields in this zone are highly variable and is encountered at relatively shallow depths. Based on the rapid change in the water table in response to rain events, it is held in a thin aquifer. The groundwater is generally within the weathered bedrock zone. Wells drilled to bedrock indicate a thin zone of surface soil (saprolite) that grades into a decomposed granitic material. The bedrock contact appears to be relatively impermeable. Regional groundwater flow in the area of the Subject Property is toward the east, in general conformance to the topographic relief in the area.

The nearest surface water body is the Perris Reservoir, located roughly 3 miles east of the Subject Property. The Perris Reservoir is an artificial lake completed in 1973 that constitutes the southern terminus of the California State Water Project. The lake is situated in what is now the Lake Perris State Recreation Area, which provides a variety of recreational activities the public. The radius map within the EDR Report (**Appendix B**) contains layers from the Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Map (FIRM) and the Fish and Wildlife Service (FWS) National Wetlands Inventory Map. This figure shows that the Subject Property is not located on a national or state wetland or within a 500-year or a 100-year flood zone.

4.2 Environmental Record Review

The purpose of the environmental record review is to identify any records that are currently or historically associated with the Subject Property or adjacent/surrounding properties. This information will help identify any RECs in connection with the Subject Property and whether the listed Sites with environmental records have current or former releases of hazardous substances and/or petroleum products that may have the potential to migrate onto the Subject Property.

4.2.1 Standard and Additional Environmental Record Sources

Consistent with ASTM E1527-13, a search of federal, state, and tribal environmental record sources within the established minimum search distances was conducted for the Subject Property by EDR and provided to Apex for review. The records search is used to identify adjoining or surrounding properties within the minimum search distance that may have a REC, HREC, CREC, or a de minimis condition that may exist at the Subject Property in connection with the searched listing. Apex reviewed the listings provided in the EDR report and summarized significant listings below. A full list of databases searched for this review is included in the EDR Radius Map report in **Appendix B**.

Environmental record sources required by the ASTM standard are listed below in **Table 4-2** along with the additional database sources that were searched and produced a record result. Pertinent findings from the record review are discussed at the end of this section while significant findings as they pertain to RECs are discussed in Section 4.4 and referenced in Section 8.0, Conclusions and Recommendations.

TABLE 4-2: Summary of Environmental Database Information

Environmental Record (Database Name)	Search Distance (Miles)	Listings within Search Distance	Subject Property Listed?
Standard Environmental Records Sources Required by ASTM E1527-13			
Federal National Priorities Sites List (NPL, Proposed NPL, NPL LIENS)	1.0	**1**	No
Federal Delisted NPL Sites	1.0	0	No
Federal SEMS List; Formerly Called CERCLIS List (SEMS)	0.5	**1**	No
Federal CERCLIS NFRAP Sites (SEMS-ARCHIVE)	0.5	0	No
Federal RCRA CORRACTS Facilities (CORRACTS)	1.0	0	No
Federal RCRA Non-CORRACTS TSD Facilities List (RCRA-TSDF)	0.5	0	No
Federal RCRA Generators List (RCRA-LQG, -SQG, -VSQG)	0.25	0	No

TABLE 4-2: Summary of Environmental Database Information			
Environmental Record (Database Name)	**Search Distance (Miles)**	**Listings within Search Distance**	**Subject Property Listed?**
Federal Institutional Control / Engineering Control Registries (IC/EC)	0.5	**2**	No
Federal Emergency Response Notification System (ERNS) List	Subject Property	0	No
California NPL Sites (RESPONSE)	1.0	0	No
California CERCLIS Sites (ENVIROSTOR)	1.0	**1**	No
California Landfill and Solid Waste Disposal Sites (SWF/LF)	0.5	0	No
California Leaking Storage Tank (LUST) Sites in GeoTracker (LUST, INDIAN LUST, CPS-SLIC)	0.5	0	No
California Storage Tank List (FEMA UST, UST, AST, INDIAN UST)	0.25	**2**	No
California Institutional Control / Engineering Control Registries: (DEED)	0.5	0	No
California Voluntary Cleanup Sites (VCP, INDIAN VCP)	0.5	0	No
California Brownfields Sites (BROWNFIELDS)	0.5	0	No
Additional State and Federal Record Sources with Record Results			
US Brownfields	0.50	0	No
CA Lists of Landfill / Solid Waste Disposal Sites (SWRCY)	0.50	0	No
CA List of Hazardous Waste and Contaminated Sites (HIST Cal-Sites, SCH, CERS HAZ WASTE, PFAS)	1.00	**2**	No
CA Registered Storage Tanks (SWEEPS UST, HIST UST, FID)	0.25	**1**	No
Records of Emergency Release Reports (HMIRS, CHMIRS, LDS, MCS, SPILLS 90)	Subject Property	0	No
Federal RCRA NonGen / NLR	0.25	**4**	No
DOD	0.25	**1**	No
ROD	1.0	**1**	No
Mines List (US Mines, Abandoned Mines)	0.25	**2**	No
Facility Index System (FINDS)	Subject Property	0	No
Enforcement & Compliance History Information (ECHO)	Subject Property	0	No

TABLE 4-2: Summary of Environmental Database Information			
Environmental Record (Database Name)	**Search Distance (Miles)**	**Listings within Search Distance**	**Subject Property Listed?**
CA BOND EXP. PLAN	1.0	**1**	No
CA Hazardous Waste and Substances Sites List (CORTESE, HIST CORTESE)	0.5	0	No
Emissions Inventory Database (EMI)	Subject Property	0	No
Facility and Manifest Database (HAZNET)	Subject Property	0	No
Registered Hazardous Waste Transporter Database (HWT)	0.25	0	No
Proposition 65 Records (Notify 65)	1.0	0	No
California Integrated Water Quality System (CIWQS)	Subject Property	0	No
EDR High Risk Historical Records			
EDR Exclusive Records (EDR Hist Auto)	0.125	0	No
EDR Recovered Government Archives			
Exclusive Recovered Govt. Archives (RGA LF, RGA LUST)	Subject Property	0	No

4.2.2 Subject Property Environmental Record Results

The Subject Property was not listed in any databases in the EDR report. As such, Apex did not identify any RECs associated with its listings in the environmental databases.

4.2.3 Adjacent and Surrounding Properties' Environmental Record Results

There are several listings in the EDR report for off-site facilities within the applicable ASTM search radii. Several of these listings (i.e., small quantity hazardous waste generators, registered and historical underground storage tanks [USTs], solid waste disposal sites, permitted hazardous waste facilities), by themselves, are not necessarily indicative of a contamination concern and, therefore, are not discussed herein and were not further evaluated for purposes of this assessment. A number of facilities appear on databases indicating potential contamination concerns (e.g., ENVIROSTOR, Leaking Underground Storage Tank [LUST]; Spills, Leaks, Investigation, and Cleanup [SLIC]). Of the sites representing a potential environmental concern, Apex did not identify any sites located adjacent to or upgradient that would indicate an environmental risk to the Subject Property was present.

4.2.4 Environmental Liens Search

Environmental liens and Activity/Use Limitations (AULs) can commonly be found within recorded land title records (e.g., County Recorder/Registry of Deeds). The types of title reports that may disclose environmental liens and AULs include Preliminary Title Reports, Title Commitments, Condition of Title, and Title Abstracts. Chain-of-title reports will not normally disclose environmental liens or AULs. Environmental liens and AULs that are imposed by judicial authorities may be recorded or filed in judicial records only. An environmental lien report was requested from EDR for review and is pending. There are no environmental liens or AULs listed for the Subject Property. A copy of the AUL report is included in **Appendix C**.

4.2.5 Orphan Summary

The orphan or unmapped site list consists of site currently listed in federal or state database that have inadequate address information. Two orphan sites were identified in the database. The facilities identified are not considered an environmental concern due to distance, regulatory status, and/or topographic gradient.

4.3 Historical Use Records

Apex reviewed reasonably ascertainable records documenting the history of the use and/or ownership of the Subject Property and adjoining/surrounding properties. **Table 4-3** below summaries this historical use information.

TABLE 4-3: Historical Use Summary

Year	Historical Uses		Source
	Subject Property	Surrounding Properties	
1901	The Subject Property appears vacant.	Sparse development. Railroad tracks are present approximately 0.25 miles to the west.	Topo Maps
1938-1947	The Subject Property appears to consist of agricultural land. A road (current day Nance Street) runs through the Subject Property	Agricultural and residential developments are present. Highway 395 runs parallel to the railroad tracks to the west.	Aerial Photos, Topo Maps
1949-1953	No discernable changes occurred at the Subject Property.	Several new agricultural and residential developments are added to the surrounding area.	Aerial Photos, Topo Maps
1961-1967	It appears the residential property to the east is using the eastern edge of the Subject Property for parking. A well is located on the property, just south of Nance Street.	The March Air Force Base runway appears to the northeast.	Aerial Photos, Topo Maps

TABLE 4-3: Historical Use Summary			
Year	Historical Uses		Source
	Subject Property	Surrounding Properties	
1973-1978	No discernable changes occurred at the Subject Property.	Parcels to the north are developed	Aerial Photos, Topo Maps, City Directory
1979-2002	No discernable changes occurred at the Subject Property.	Additional developments to the north. Harley Knox Blvd is completed.	Aerial Photos, Topo Maps, City Directory
2006	The northwest corner of the Subject Property is being used for vehicle or trailer storage	No discernable changes occurred in the area surrounding the Subject Property.	Aerial Photos, City Directory
2009-2016	The northwest corner of the Subject Property is no longer used for vehicle or trailer storage. The southeast corner, south of Nance Street, is being used for parking.	No discernable changes occurred in the area surrounding the Subject Property.	Aerial Photos, City Directory

4.3.1 Aerial Photographs

Digital aerial photographs dated 1938, 1949, 1953, 1961, 1967, 1978, 1985, 1989, 1990, 1994, 2002, 2006, 2009, 2012, and 2016 provided by EDR were reviewed by Apex. Apex did not identify any RECs on the aerial photographs. Copies of aerial photographs are presented in **Appendix D** and summarized in **Table 4-3** above.

4.3.2 Topographic Maps

EDR provided historic topographic maps with coverage of the Subject Property dated 1901, 1942, 1943, 1947, 1953, 1967, 1973, 1978, 1979, and 2012 which were reviewed by Apex. Because they show many man-made features not evident in photographs, historical topographic maps are useful in documenting the history of developments and land use features on many properties, particularly those in rural, unincorporated areas.

A well was identified on the Subject property, from 1967 through the most recent 2012 map, located on the southeast corner, south of Nance Street. See section 4.4.3 for additional details.

Copies of these maps are included in **Appendix E**.

4.3.3 City Directories

EDR provided historic city directories for the years available between 1992 and 2017. Historical city directories, listed by street address, are frequently useful in documenting the historical occupancy of

properties in urban or otherwise incorporated areas that have a significant history of developed commercial use. A majority of the listings consist of household residents. A few businesses are listed. None of the listings identified are not considered an environmental concern. A copy of the City Directories Results is included as **Appendix F**.

4.3.4 Fire Insurance Maps

EDR did not find any fire insurance maps associated with the Subject Property.

4.3.5 Building Permit Record

Building permit records can be used to identify structures and/or features of previous or current properties on the Subject Property and adjacent/surrounding properties. This information can be used to determine potential environmental concerns through the presence of USTs, sump pumps, septic tanks and connection dates to sewer, electrical, water, and natural gas. No permits were found for the Subject Property and from adjacent and surrounding properties. A copy of the building permits report is included as **Appendix G**.

4.3.6 Property Tax Map

A property tax map was obtained from EDR. The map identifies the parcels that comprise the Subject Property as numbers 314-015-015 through 314-015-040, 314-015-042, 314-015-044, 314-015-046, 314-015-048, 314-016-005 through 314-016-012 and 314-016-33. The property tax map report is included as **Appendix H**.

4.4 Record Review Findings

Apex reviewed the available environmental and historical records for the Subject Property according to ASTM E1527-13 Standards. Based on physical setting source review, environmental records review, and historical use records, no RECs were identified.

4.4.1 Wells

4.4.1.1 Oil and Gas

Readily available data were reviewed to determine if oil and/or gas wells are located on or in the area of the Subject Property. Data sources reviewed include California Geologic Energy Management Division (CalGEM) Well Finder database.

No evidence of oil wells or gas wells was observed on or near the Subject Property.

4.4.1.2 Water Wells

Readily available data were reviewed to determine if water wells were located on the subject property. Data sources reviewed include California DWR Well Completion Report Map Application and State Water Resource Control Board (SWRCB) online database GeoTracker.

No evidence of any water wells on the property was fond in the databases. However, the symbol for a water-well is present on the USGS Topographic maps published between 1967 and 2012. Pipelines

Readily available data were reviewed to determine if pipelines are located on or in the area of the Subject Property. Data sources reviewed include the National Pipeline Mapping System (NPMS) Public Viewer database.

No evidence of pipelines was observed on or near the Subject Property.

5.0 SITE RECONNAISSANCE

The Subject Property was inspected on July 9, 2021 by Apex representative Jennifer Woods, under the supervision of Paisha Jorgensen, a qualified environmental professional. The additional parcels which were added to the Subject Property boundaries in the December 9, 2021 email correspondence were inspected at the same time due to the possibility that they may be added in at a later date.

Weather conditions at the time of the inspection were clear and temperatures of approximately 83 degrees Fahrenheit. Apex was unaccompanied during the site reconnaissance. The site reconnaissance consisted of a walk-through of the Subject Property. Apex did not encounter any significant access limitations during the site reconnaissance. Detailed information on the Site Reconnaissance can be found in **Appendix A,** which contains photographs taken during the site walk. This section summarizes significant findings of the site inspection of the Subject Property.

At the time of the site reconnaissance, the Subject Property consisted of 39 parcels that were primarily unimproved and vacant. The parcel in the northwest corner of the Subject Property was utilized for semi-truck trailer storage. Access to the Subject Property can be gained from Patterson Avenue to the west or Nevada Avenue to the east. Nance Street runs through the southern portion of the subject property.

5.1 Hazardous Substances and Petroleum Products

No hazardous substances or petroleum products were observed at the Subject Property.

5.2 Waste Generation, Storage, and Disposal

Waste is currently not generated onsite; however, general refuse in the form of household trash and used tires, discarded machinery, and boats were observed throughout the Subject Property.

5.3 Underground Storage Tanks & Aboveground Storage Tanks

No above ground storage tanks (ASTs) or USTs were observed at the Subject Property.

5.4 Polychlorinated Biphenyls (PCBs) and Oil-Containing Equipment

Polychlorinated biphenyls (PCBs) are known to be a component in fluids used in electrical and hydraulic equipment, lubricating oils, paints and coatings manufactured prior to 1979. In the event of a leak or release of fluid or oil-containing equipment, the owner is responsible for remediation.

Two pole-mounted transformers were observed at the Subject Property along Nevada Avenue and along Patterson Avenue near the trailer storage. Both transformers were in good condition with no evidence of leaking.

5.5 Other Observations

Apex did not find evidence of unusual odors, wells, septic systems, stressed vegetations, ponds, or lagoons on the Subject Property. A concrete pad indicative of a former structure was observed along Nevada Avenue on the east portion of the Subject Property.

5.6 Findings from the Subject Property Reconnaissance

Apex did not identify any RECs during the site reconnaissance associated with the Subject Property.

6.0 INTERVIEWS

No interviews were conducted during the preparation of this Phase I ESA.

7.0 CONDITIONS OUTSIDE THE SCOPE OF ASTM E1527-13

According to the ASTM E1527-13 Standards, Duke Realty may conduct additional investigations to assess the other environmental conditions in connection with the commercial real estate. At the request of Duke, Apex did not conduct any additional investigations at the Subject Property.

8.0 CONCLUSIONS AND RECOMMENDATIONS

Apex performed this Phase I ESA in accordance with the U.S. Environmental Protection Agency's 40 CFR, Part 312 Standards and Practices for All Appropriate Inquiries (AAI) and ATSM E1527-13: "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process" and the proposal from Duke to Apex dated July 7, 2021. Any exceptions to, or deletions from, this practice are described in Section 1.0 of this report.

This assessment has revealed no RECs in connection with the Subject Property.

Apex has identified the following Business Environmental Risks:

- The Subject Property has historically been used for agricultural purposes dating from prior to 1938 until between 2009-2012. OCPs were used extensively from the 1940s through the 1960s in the agricultural industry. Arsenic may also be found in old agricultural soils. Based these findings, Apex recommends collecting 4 surface (0-0.5 feet below ground surface) at a minimum in each quarter of the Subject Property and have them analyzed for OCPs and metals for worker soil handling safety purposes.
- A possible water-well was identified on the historic topographic maps from 1967 through the most recent 2012 map, located on the southeast corner, south of Nance Street. A record search was performed to determine the status of the well. No records were found in the databases. A well is considered a potential preferential pathway to subsurface groundwater. Apex considers the water-well to be a Business Environmental Risk (BER) and recommends performing an investigation to determine if the well is still present on the Subject Property. If the well is found it should be properly abandoned.

9.0 ENVIRONMENTAL PROFESSIONALS

9.1 Signatures of Responsible Environmental Professionals

We declare that, to the best of our professional knowledge and belief, we meet the definition of Environmental Professional as defined in § 312.10 of 40 CFR Part 312, and we have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the Subject Property. We have developed and performed all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Suzanne Nase	Robert Robitaille
Staff Geologist	*Senior Geologist*

9.2 Qualifications of Responsible Environmental Professionals

Ms. Nase has a Bachelor of Science Degree in Geological Sciences and has over 10 years of professional experience in the environmental consulting field. Ms. Nase is an environmental professional as defined in § 312.10 of 40 CFR Part 312.

Mr. Robitaille holds a Bachelor of Science Degree in Geology and has over 30 years of professional experience in the environmental consulting field. Mr. Robitaille is an environmental professional as defined in § 312.10 of 40 CFR Part 312.

10.0 REFERENCES

ASTM Designation E1527 – 13 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process. 2013.

California Department of Conservation, Geologic Energy Management Division (CalGEM) Well Finder website: https://www.conservation.ca.gov/calgem/Pages/WellFinder.aspx.

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Department of Toxic Substances Control (DTSC). Envirostor data management system. 2018. http://www.envirostor.dtsc.ca.gov

Environmental Data Resources, Inc. EDR Aerial Photo Decade Package. August 30, 2021

Environmental Data Resources, Inc. EDR Building Permit Report. August 30, 2021

Environmental Data Resources, Inc. The EDR City Directory Image Report. August 30, 2021

Environmental Data Resources, Inc. EDR Historical Topo Map Report. August 30, 2021

Environmental Data Resources, Inc. The EDR Radius Map Report with GeoCheck. December 9, 2021

Environmental Data Resources, Inc. The EDR Property Tax Map Report. August 30, 2021

Environmental Data Resources, Inc. Certified Sanborn Map Report. August 30, 2021

Environmental Data Resources, Inc. EDR Environmental Lien and AUL Search. August 30, 2021

Federal Emergency Management Agency (FEMA), Flood Insurance Rate Map

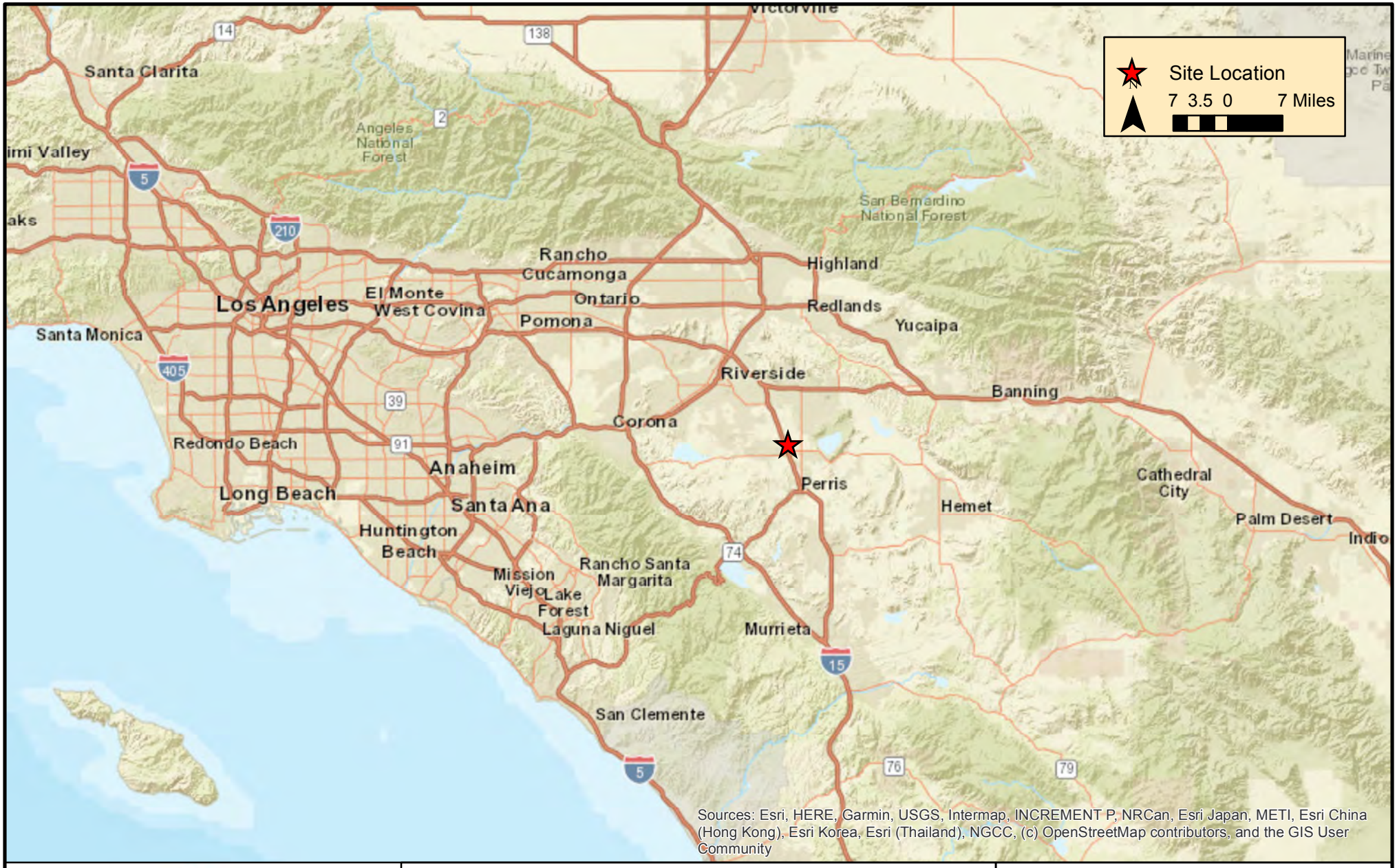
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National Pipeline Mapping System Public Viewer website: https://pvnpms.phmsa.dot.gov/PublicViewer/.

United States Department of Agriculture (USDA) – Natural Resources Conservation Service (NRCS) Web Soil Survey (WSS). http://websoilsurvey.nrcs.usda.gov/app/

FIGURES



APEX

3478 BUSKIRK AVENUE, SUITE 100
PLEASANT HILL, CA 94523

Duke Realty
Patterson Avenue Perris
California

SITE LOCATION MAP

FILE NAME	DATE	DR. BY	APP. BY	PROJECT NO.	FIGURE
Figure 1. Location	08/30/21	TC	BR	093-DUKE-054.1	1



APEX
3478 BUSKIRK AVENUE, SUITE 100
PLEASANT HILL, CA 94523

Duke Realty
Patterson Avenue
Perris, California

SITE PLAN

FILE NAME	DATE	DR. BY	APP. BY	PROJECT #	FIGURE #
figure 2 site plan (factory)	12/9/21	TC	BR	093-DUKE-054.1	2

APPENDIX A

SITE RECONNAISSANCE PHOTOGRAPHS

APPENDIX A
PHOTOGRAPH LOG

Project Name: Patterson Avenue and Nance Street
Project Number: 093-DUKE-054.1

Client: Duke Realty
Location: Perris, CA

Photo No: 1	
Photo Date: 7/9/21	
Orientation: Northwest	
Description: View of the truck trailer storage on the northwest parcel of the subject property.	

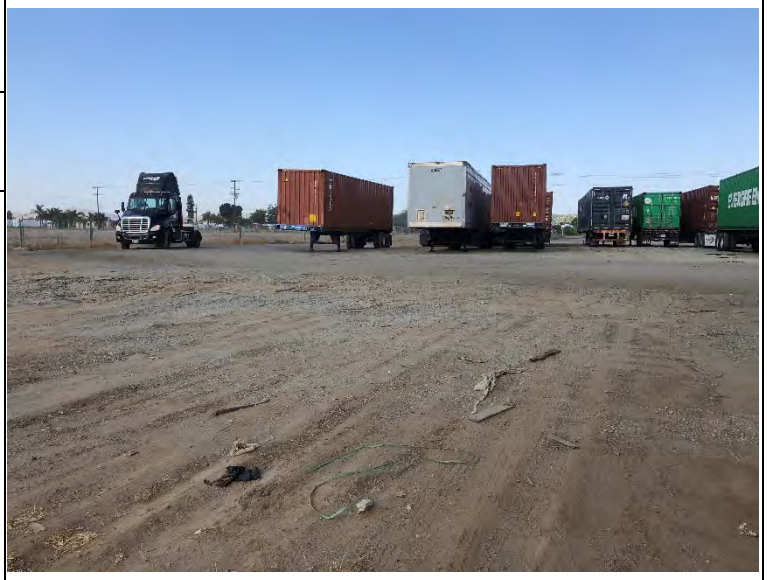
Photo No: 2	
Photo Date: 7/9/21	
Orientation: West	
Description: View of the truck trailer storage on the northwest parcel of the subject property.	

Photo No: 3	
Photo Date: 7/9/21	
Orientation: Northwest.	
Description: View of the west portion of the subject property.	

Photo No: 4	
Photo Date: 7/9/21	
Orientation: North	
Description: View of general refuse scattered throughout property.	

Photo No: 5	
Photo Date: 7/9/21	
Orientation: South	
Description: View of boat dumped on the central portion of the subject property.	

Photo No: 6	
Photo Date: 7/9/21	
Orientation: East	
Description: View of the south portion of the property.	

Photo No: 7	
Photo Date: 7/9/21	
Orientation: South	
Description: View of the southeast portion of the subject property with the south adjoining property beyond.	

Photo No: 8	
Photo Date: 7/9/21	
Orientation: North	
Description: View of discarded portions of machinery located on the east side of the subject property.	

Project Name: Patterson Avenue and Nance Street
Project Number: 093-DUKE-054.1
Client: Duke Realty
Location: Perris, CA

Photo No: 9	
Photo Date: 7/9/21	
Orientation: West	
Description: View of Nance Road that transverses the south portion of the subject property.	

Photo No: 10	
Photo Date: 7/9/21	
Orientation: West	
Description: View of a concrete pad on the east portion of the property.	

Photo No: 11	
Photo Date: 7/9/21	
Orientation: West	
Description: View of the east portion of the property.	

Photo No: 12	
Photo Date: 7/9/21	
Orientation: North	
Description: View of the north adjoining property.	

APPENDIX A
PHOTOGRAPH LOG

Project Name: Patterson Avenue and Nance Street
Project Number: 093-DUKE-054.1

Client: Duke Realty
Location: Perris, CA

Photo No: 13	
Photo Date: 7/9/21	
Orientation: West	
Description: View of the west adjoining property.	

Photo No: 14	
Photo Date: 7/9/21	
Orientation: East	
Description: View of the east adjoining property.	

APPENDIX B

ENVIRONMENTAL DATA RESOURCES REPORT

Duke - Patterson Avenue
Patterson Avenue
Perris, CA 92571

Inquiry Number: 6783188.2s
December 09, 2021

The EDR Radius Map™ Report with GeoCheck®

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

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Detail Map	3
Map Findings Summary	4
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Orphan Summary	121
Government Records Searched/Data Currency Tracking	GR-1

GEOCHECK ADDENDUM

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Physical Setting Source Summary	A-2
Physical Setting SSURGO Soil Map	A-5
Physical Setting Source Map	A-12
Physical Setting Source Map Findings	A-14
Physical Setting Source Records Searched	PSGR-1

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 (E1527-21), 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

PATTERSON AVENUE
PERRIS, CA 92571

COORDINATES

Latitude (North):	33.8548560 - 33ˆ 51' 17.48''
Longitude (West):	117.2521280 - 117ˆ 15' 7.66''
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	476676.4
UTM Y (Meters):	3745897.5
Elevation:	1498 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	12015925 STEELE PEAK, CA
Version Date:	2018
Southeast Map:	12015907 PERRIS, CA
Version Date:	2018

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20140603
Source:	USDA

MAPPED SITES SUMMARY

Target Property Address:
PATTERSON AVENUE
PERRIS, CA 92571

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
Reg	MARCH AIR FORCE BASE		DOD	Same	1463, 0.277, North
Reg	MARCH AIR FORCE BASE	22 CSG/CC	NPL, SEMS, RCRA-LQG, US ENG CONTROLS, US INST...	Same	1835, 0.348, NE
A1	GARCIA JUAREZ CONSTR	4517 WADE AVE	AST	Higher	926, 0.175, WSW
A2	ONSITE KRUSHING CO.	4517 WADE AVENUE	ABANDONED MINES	Higher	926, 0.175, WSW
A3	GRFCO, INC.	4517 WADE AVE	CERS HAZ WASTE, CERS TANKS, HAZNET, CERS, HWTS	Higher	926, 0.175, WSW
A4	ONSITE KRUSHING CO.	4517 WADE AVENUE	US MINES	Higher	926, 0.175, WSW
A5	GRFCO INC.	4517 WADE AVE	RCRA NonGen / NLR	Higher	926, 0.175, WSW
A6	HIGH REACH EQUIPMENT	4461 WADE AVE	RCRA NonGen / NLR	Higher	933, 0.177, WSW
7	NEW CINGULAR WIRELES	4441 WADE AVE	RCRA NonGen / NLR	Higher	1036, 0.196, SW
8	WEST TOW INC	4615 WADE AVE	RCRA NonGen / NLR	Higher	1159, 0.220, WNW
9	INLAND PLASTERING	1153 W OLEANDER AVE	UST	Lower	1296, 0.245, North
B10	MARCH AIR FORCE BASE		CA BOND EXP. PLAN	Lower	5178, 0.981, NNE
B11	MARCH AIR RESERVE BA	3,545 ACRES; EAST OF	ENVIROSTOR, HIST Cal-Sites	Lower	5178, 0.981, NNE

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

Lists of Federal NPL (Superfund) sites

Proposed NPL ---------- Proposed National Priority List Sites
NPL LIENS ---------- Federal Superfund Liens

Lists of Federal Delisted NPL sites

Delisted NPL ---------- National Priority List Deletions

Lists of Federal sites subject to CERCLA removals and CERCLA orders

FEDERAL FACILITY ---------- Federal Facility Site Information listing

Lists of Federal CERCLA sites with NFRAP

SEMS-ARCHIVE ---------- Superfund Enterprise Management System Archive

Lists of Federal RCRA facilities undergoing Corrective Action

CORRACTS ---------- Corrective Action Report

Lists of Federal RCRA TSD facilities

RCRA-TSDF ---------- RCRA - Treatment, Storage and Disposal

Lists of Federal RCRA generators

RCRA-LQG ---------- RCRA - Large Quantity Generators
RCRA-SQG ---------- RCRA - Small Quantity Generators
RCRA-VSQG ---------- RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

Federal institutional controls / engineering controls registries

LUCIS ---------- Land Use Control Information System

Federal ERNS list

ERNS ---------- Emergency Response Notification System

Lists of state- and tribal (Superfund) equivalent sites

RESPONSE ---- State Response Sites

Lists of state and tribal landfills and solid waste disposal facilities

SWF/LF ---- Solid Waste Information System

Lists of state and tribal leaking storage tanks

LUST ---- Geotracker's Leaking Underground Fuel Tank Report
INDIAN LUST ---- Leaking Underground Storage Tanks on Indian Land
CPS-SLIC ---- Statewide SLIC Cases

Lists of state and tribal registered storage tanks

FEMA UST ---- Underground Storage Tank Listing
INDIAN UST ---- Underground Storage Tanks on Indian Land

Lists of state and tribal voluntary cleanup sites

VCP ---- Voluntary Cleanup Program Properties
INDIAN VCP ---- Voluntary Cleanup Priority Listing

Lists of state and tribal brownfield 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
INDIAN ODI ---- Report on the Status of Open Dumps on Indian Lands
DEBRIS REGION 9 ---- Torres Martinez Reservation Illegal Dump Site Locations
ODI ---- Open Dump Inventory
IHS OPEN DUMPS ---- Open Dumps on Indian Land

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL ---- Delisted National Clandestine Laboratory Register
SCH ---- School Property Evaluation Program
CDL ---- Clandestine Drug Labs
Toxic Pits ---- Toxic Pits Cleanup Act Sites
US CDL ---- National Clandestine Laboratory Register
PFAS ---- PFAS Contamination Site Location Listing
AQUEOUS FOAM ---- Former Fire Training Facility Assessments Listing

EXECUTIVE SUMMARY

Local Lists of Registered Storage Tanks

SWEEPS UST	SWEEPS UST Listing
HIST UST	Hazardous Substance Storage Container Database
CA FID UST	Facility Inventory Database

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
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
RMP	Risk Management Plans
RAATS	RCRA Administrative Action Tracking System
PRP	Potentially Responsible Parties
PADS	PCB Activity Database System
ICIS	Integrated Compliance Information System
FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
MLTS	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
FINDS	Facility Index System/Facility Registry System
UXO	Unexploded Ordnance Sites
ECHO	Enforcement & Compliance History Information
DOCKET HWC	Hazardous Waste Compliance Docket Listing

FUELS PROGRAM - EPA Fuels Program Registered Listing
Cortese - "Cortese" Hazardous Waste & Substances Sites List
CUPA Listings - CUPA Resources List
DRYCLEANERS - Cleaner Facilities
EMI - Emissions Inventory Data
ENF - Enforcement Action Listing
Financial Assurance - Financial Assurance Information Listing
HAZNET - Facility and Manifest Data
ICE - ICE
HIST CORTESE - Hazardous Waste & Substance Site List
HWP - EnviroStor Permitted Facilities Listing
HWT - Registered Hazardous Waste Transporter Database
MINES - Mines Site Location Listing
MWMP - Medical Waste Management Program Listing
NPDES - NPDES Permits Listing
PEST LIC - Pesticide Regulation Licenses Listing
PROC - Certified Processors Database
Notify 65 - Proposition 65 Records
UIC - 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)
MINES MRDS - Mineral Resources Data System
HWTS - Hazardous Waste Tracking System

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.

EXECUTIVE SUMMARY

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

Lists of Federal NPL (Superfund) sites

NPL: Also known as Superfund, the National Priority List database is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund program. The source of this database is the U.S. EPA.

A review of the NPL list, as provided by EDR, and dated 10/20/2021 has revealed that there is 1 NPL site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MARCH AIR FORCE BASE Cerclis ID:: 902761 EPA Id: CA4570024527	***22 CSG/CC***	***NE 1/4 - 1/2 (0.348 mi.)***	***0***	***9***

Lists of Federal sites subject to CERCLA removals and CERCLA orders

SEMS: 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.

A review of the SEMS list, as provided by EDR, and dated 10/20/2021 has revealed that there is 1 SEMS site within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MARCH AIR FORCE BASE Site ID: 0902761 EPA Id: CA4570024527	***22 CSG/CC***	***NE 1/4 - 1/2 (0.348 mi.)***	***0***	***9***

Federal institutional controls / engineering controls registries

US ENG CONTROLS: A listing of sites with engineering controls in place.

A review of the US ENG CONTROLS list, as provided by EDR, and dated 08/23/2021 has revealed that there is 1 US ENG CONTROLS site within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MARCH AIR FORCE BASE EPA ID:: CA4570024527 EPA ID:: CA4570024527	***22 CSG/CC***	***NE 1/4 - 1/2 (0.348 mi.)***	***0***	***9***

US INST 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.

A review of the US INST CONTROLS list, as provided by EDR, and dated 08/23/2021 has revealed that there is 1 US INST CONTROLS site within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MARCH AIR FORCE BASE EPA ID:: CA4570024527	***22 CSG/CC***	***NE 1/4 - 1/2 (0.348 mi.)***	***0***	***9***

Lists of state- and tribal hazardous waste facilities

ENVIROSTOR: 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.

A review of the ENVIROSTOR list, as provided by EDR, and dated 07/22/2021 has revealed that there is 1 ENVIROSTOR site within approximately 1 mile of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
MARCH AIR RESERVE BA Facility Id: 33970004 Status: Active	***3,545 ACRES; EAST OF***	***NNE 1/2 - 1 (0.981 mi.)***	***B11***	***81***

Lists of state and tribal registered storage tanks

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the State Water Resources Control Board's Hazardous Substance Storage Container Database.

A review of the UST list, as provided by EDR, has revealed that there is 1 UST site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
INLAND PLASTERING	1153 W OLEANDER AVE	N 1/8 - 1/4 (0.245 mi.)	9	81
Database: UST, Date of Government Version: 09/07/2021				
Facility Id: 410				

AST: A listing of aboveground storage tank petroleum storage tank locations.

A review of the AST list, as provided by EDR, has revealed that there is 1 AST site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
GARCIA JUAREZ CONSTR	4517 WADE AVE	WSW 1/8 - 1/4 (0.175 mi.)	A1	46
Database: AST, Date of Government Version: 07/06/2016				

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Hazardous waste / Contaminated Sites

HIST Cal-Sites: Formerly known as ASPIS, this database contains both known and potential hazardous substance sites. The source is the California Department of Toxic Substance Control. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

A review of the HIST Cal-Sites list, as provided by EDR, and dated 08/08/2005 has revealed that there is 1 HIST Cal-Sites site within approximately 1 mile of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
MARCH AIR RESERVE BA	***3,545 ACRES; EAST OF***	***NNE 1/2 - 1 (0.981 mi.)***	***B11***	***81***

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.

A review of the CERS HAZ WASTE list, as provided by EDR, and dated 07/15/2021 has revealed that there is 1 CERS HAZ WASTE site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
GRFCO, INC.	***4517 WADE AVE***	***WSW 1/8 - 1/4 (0.175 mi.)***	***A3***	***48***

EXECUTIVE SUMMARY

Local Lists of Registered Storage Tanks

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.

A review of the CERS TANKS list, as provided by EDR, and dated 07/15/2021 has revealed that there is 1 CERS TANKS site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
GRFCO, INC.	***4517 WADE AVE***	***WSW 1/8 - 1/4 (0.175 mi.)***	***A3***	***48***

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 09/13/2021 has revealed that there are 4 RCRA NonGen / NLR sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
GRFCO INC.	4517 WADE AVE	WSW 1/8 - 1/4 (0.175 mi.)	A5	71
HIGH REACH EQUIPMENT	4461 WADE AVE	WSW 1/8 - 1/4 (0.177 mi.)	A6	73
NEW CINGULAR WIRELES EPA ID:: CAL000442756	4441 WADE AVE	SW 1/8 - 1/4 (0.196 mi.)	7	76
WEST TOW INC EPA ID:: CAL000452698	4615 WADE AVE	WNW 1/8 - 1/4 (0.220 mi.)	8	78

DOD: 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.

A review of the DOD list, as provided by EDR, and dated 12/31/2005 has revealed that there is 1 DOD site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MARCH AIR FORCE BASE		N 1/4 - 1/2 (0.277 mi.)	0	9

ROD: Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid the cleanup.

A review of the ROD list, as provided by EDR, and dated 10/20/2021 has revealed that there is 1 ROD site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MARCH AIR FORCE BASE	***22 CSG/CC***	***NE 1/4 - 1/2 (0.348 mi.)***	***0***	***9***

EXECUTIVE SUMMARY

EPA ID:: CA4570024527

US MINES: Mines Master Index File. The source of this database is the Dept. of Labor, Mine Safety and Health Administration.

A review of the US MINES list, as provided by EDR, has revealed that there is 1 US MINES site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
ONSITE KRUSHING CO.	4517 WADE AVENUE	WSW 1/8 - 1/4 (0.175 mi.)	A4	64
Database: MINES VIOLATIONS, Date of Government Version: 06/30/2021				

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.

A review of the ABANDONED MINES list, as provided by EDR, and dated 06/15/2021 has revealed that there is 1 ABANDONED MINES site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
ONSITE KRUSHING CO.	4517 WADE AVENUE	WSW 1/8 - 1/4 (0.175 mi.)	A2	47

CA BOND EXP. 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.

A review of the CA BOND EXP. PLAN list, as provided by EDR, and dated 01/01/1989 has revealed that there is 1 CA BOND EXP. PLAN site within approximately 1 mile of the target property.

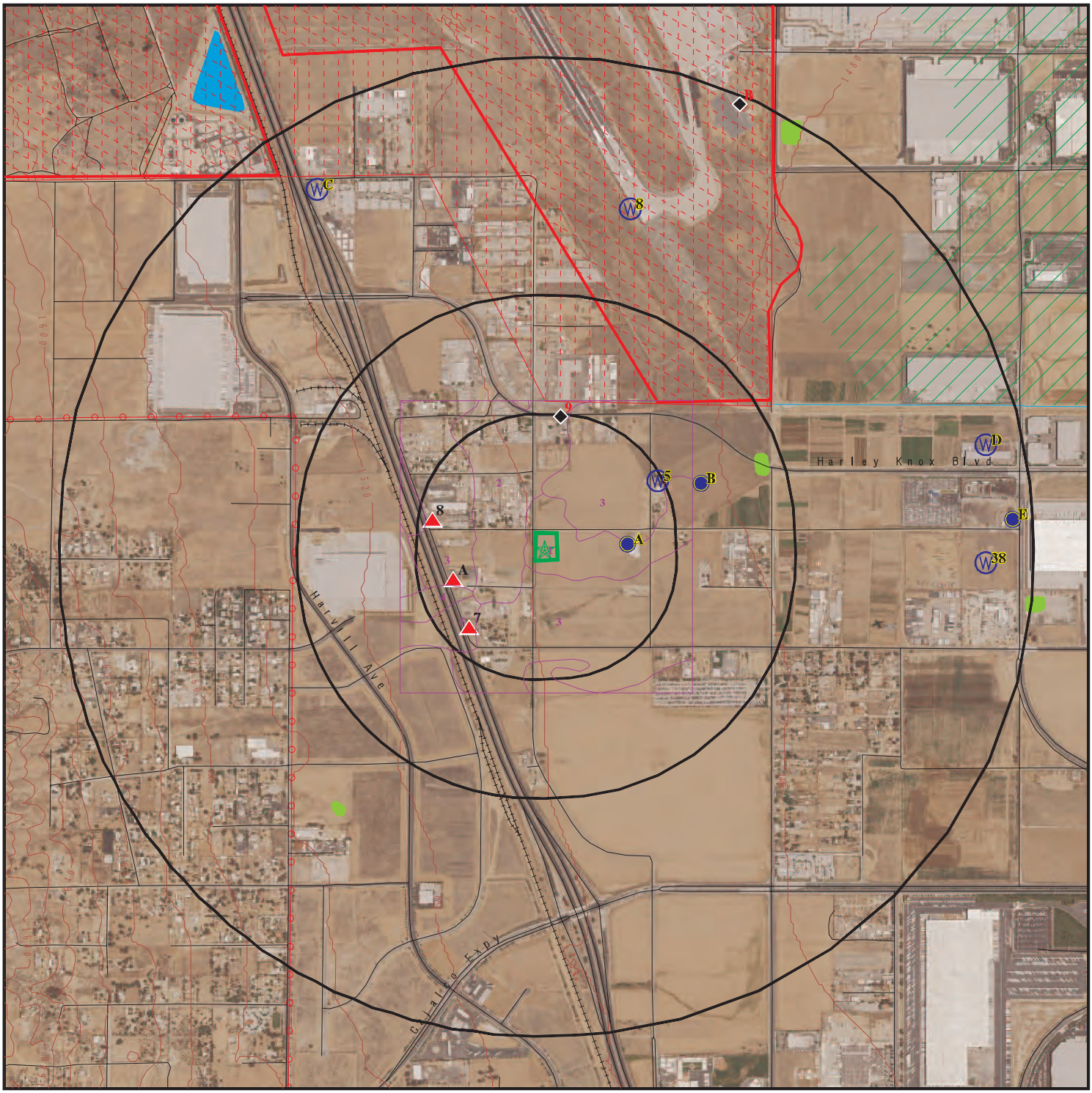
Lower Elevation	Address	Direction / Distance	Map ID	Page
MARCH AIR FORCE BASE		NNE 1/2 - 1 (0.981 mi.)	B10	81

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 2 records.

Site Name	Database(s)
FUTURE TRUCK TERMINAL	CDL CPS-SLIC

OVERVIEW MAP - 6783188.2S



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- National Priority List Sites
- Dept. Defense Sites

0 1/4 1/2 1 Miles

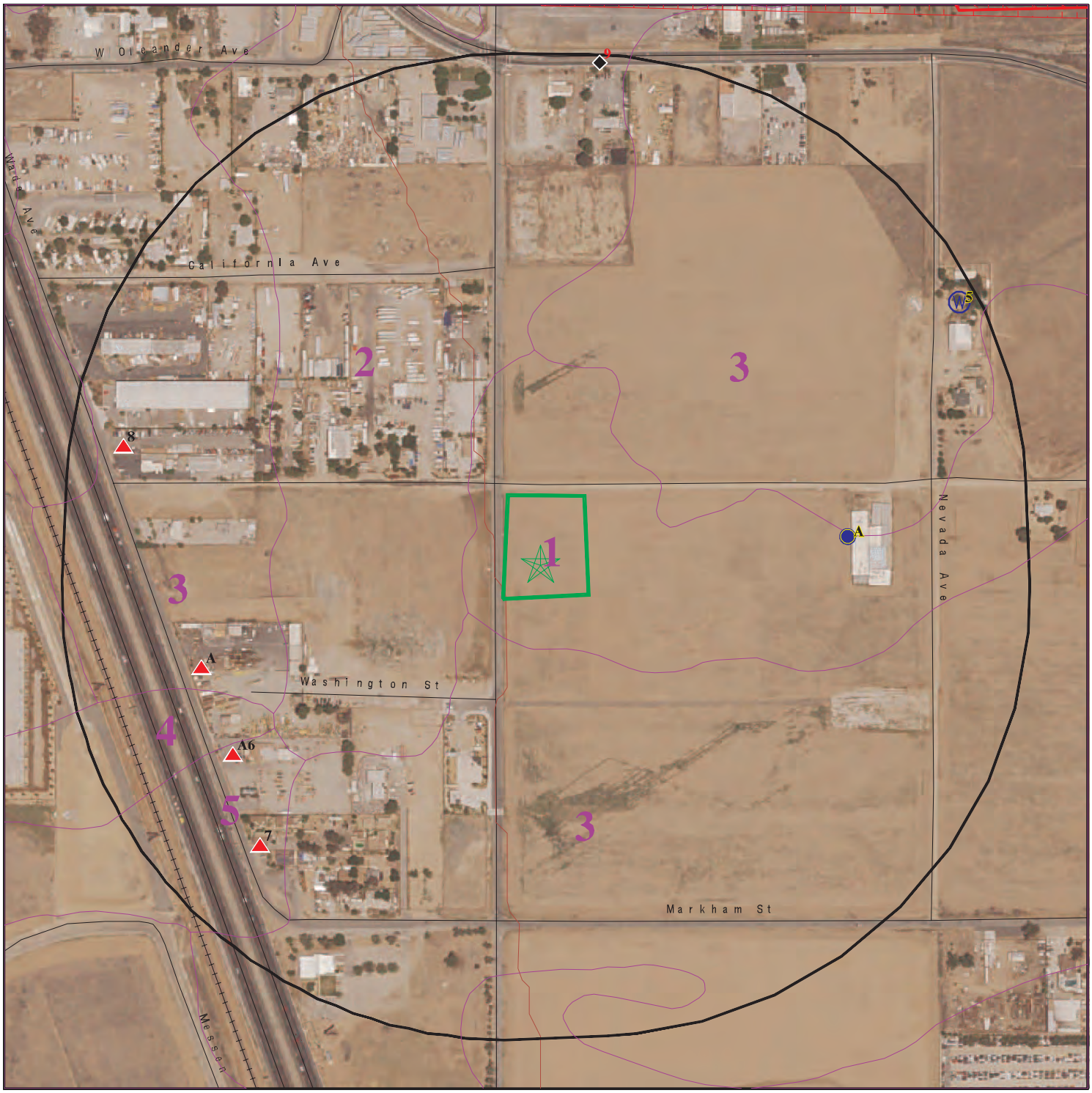
- Indian Reservations BIA
- Power transmission lines
- Special Flood Hazard Area (1%)
- 0.2% Annual Chance Flood Hazard
- National Wetland Inventory
- State Wetlands
- Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME:	Duke - Patterson Avenue	CLIENT:	APEX Environmental
ADDRESS:	Patterson Avenue Perris CA 92571	CONTACT:	Tania Cowden
LAT/LONG:	33.854856 / 117.252128	INQUIRY #:	6783188.2s
		DATE:	December 09, 2021 6:03 pm

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DETAIL MAP - 6783188.2S



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

Sensitive Receptors

National Priority List Sites

Dept. Defense Sites

0 1/16 1/8 1/4 Miles

Indian Reservations BIA

Special Flood Hazard Area (1%)

0.2% Annual Chance Flood Hazard

Areas of Concern

N

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME:	Duke - Patterson Avenue	CLIENT:	APEX Environmental
ADDRESS:	Patterson Avenue Perris CA 92571	CONTACT:	Tania Cowden
		INQUIRY #:	6783188.2s
LAT/LONG:	33.854856 / 117.252128	DATE:	December 09, 2021 6:05 pm

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MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Lists of Federal NPL (Superfund) sites								
NPL	1.000		0	0	1	0	NR	1
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	1.000		0	0	0	0	NR	0
Lists of Federal Delisted NPL sites								
Delisted NPL	1.000		0	0	0	0	NR	0
Lists of Federal sites subject to CERCLA removals and CERCLA orders								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	1	NR	NR	1
Lists of Federal CERCLA sites with NFRAP								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
Lists of Federal RCRA facilities undergoing Corrective Action								
CORRACTS	1.000		0	0	0	0	NR	0
Lists of Federal RCRA TSD facilities								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Lists of Federal RCRA generators								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	0	NR	NR	NR	0
RCRA-VSQG	0.250		0	0	NR	NR	NR	0
Federal institutional controls / engineering controls registries								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	1	NR	NR	1
US INST CONTROLS	0.500		0	0	1	NR	NR	1
Federal ERNS list								
ERNS	0.001		0	NR	NR	NR	NR	0
Lists of state- and tribal (Superfund) equivalent sites								
RESPONSE	1.000		0	0	0	0	NR	0
Lists of state- and tribal hazardous waste facilities								
ENVIROSTOR	1.000		0	0	0	1	NR	1
Lists of state and tribal landfills and solid waste disposal facilities								
SWF/LF	0.500		0	0	0	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
Lists of state and tribal leaking storage tanks								
LUST	0.500		0	0	0	NR	NR	0
INDIAN LUST	0.500		0	0	0	NR	NR	0
CPS-SLIC	0.500		0	0	0	NR	NR	0
Lists of state and tribal registered storage tanks								
FEMA UST	0.250		0	0	NR	NR	NR	0
UST	0.250		0	1	NR	NR	NR	1
AST	0.250		0	1	NR	NR	NR	1
INDIAN UST	0.250		0	0	NR	NR	NR	0
Lists of state and tribal voluntary cleanup sites								
VCP	0.500		0	0	0	NR	NR	0
INDIAN VCP	0.500		0	0	0	NR	NR	0
Lists of state and tribal brownfield sites								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
WMUDS/SWAT	0.500		0	0	0	NR	NR	0
SWRCY	0.500		0	0	0	NR	NR	0
HAULERS	0.001		0	NR	NR	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	0.001		0	NR	NR	NR	NR	0
HIST Cal-Sites	1.000		0	0	0	1	NR	1
SCH	0.250		0	0	NR	NR	NR	0
CDL	0.001		0	NR	NR	NR	NR	0
CERS HAZ WASTE	0.250		0	1	NR	NR	NR	1
Toxic Pits	1.000		0	0	0	0	NR	0
US CDL	0.001		0	NR	NR	NR	NR	0
PFAS	0.500		0	0	0	NR	NR	0
AQUEOUS FOAM	TP		NR	NR	NR	NR	NR	0
Local Lists of Registered Storage Tanks								
SWEEPS UST	0.250		0	0	NR	NR	NR	0
HIST UST	0.250		0	0	NR	NR	NR	0
CERS TANKS	0.250		0	1	NR	NR	NR	1

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
CA FID UST	0.250		0	0	NR	NR	NR	0
Local Land Records								
LIENS	0.001		0	NR	NR	NR	NR	0
LIENS 2	0.001		0	NR	NR	NR	NR	0
DEED	0.500		0	0	0	NR	NR	0
Records of Emergency Release Reports								
HMIRS	0.001		0	NR	NR	NR	NR	0
CHMIRS	0.001		0	NR	NR	NR	NR	0
LDS	0.001		0	NR	NR	NR	NR	0
MCS	0.001		0	NR	NR	NR	NR	0
SPILLS 90	0.001		0	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		0	4	NR	NR	NR	4
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	1	0	NR	1
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	0.001		0	NR	NR	NR	NR	0
EPA WATCH LIST	0.001		0	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	0.001		0	NR	NR	NR	NR	0
TRIS	0.001		0	NR	NR	NR	NR	0
SSTS	0.001		0	NR	NR	NR	NR	0
ROD	1.000		0	0	1	0	NR	1
RMP	0.001		0	NR	NR	NR	NR	0
RAATS	0.001		0	NR	NR	NR	NR	0
PRP	0.001		0	NR	NR	NR	NR	0
PADS	0.001		0	NR	NR	NR	NR	0
ICIS	0.001		0	NR	NR	NR	NR	0
FTTS	0.001		0	NR	NR	NR	NR	0
MLTS	0.001		0	NR	NR	NR	NR	0
COAL ASH DOE	0.001		0	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	0.001		0	NR	NR	NR	NR	0
RADINFO	0.001		0	NR	NR	NR	NR	0
HIST FTTS	0.001		0	NR	NR	NR	NR	0
DOT OPS	0.001		0	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	0.001		0	NR	NR	NR	NR	0
US AIRS	0.001		0	NR	NR	NR	NR	0
US MINES	0.250		0	1	NR	NR	NR	1
ABANDONED MINES	0.250		0	1	NR	NR	NR	1
FINDS	0.001		0	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0
ECHO	0.001		0	NR	NR	NR	NR	0
DOCKET HWC	0.001		0	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
CA BOND EXP. PLAN	1.000		0	0	0	1	NR	1
Cortese	0.500		0	0	0	NR	NR	0
CUPA Listings	0.250		0	0	NR	NR	NR	0
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
EMI	0.001		0	NR	NR	NR	NR	0
ENF	0.001		0	NR	NR	NR	NR	0
Financial Assurance	0.001		0	NR	NR	NR	NR	0
HAZNET	0.001		0	NR	NR	NR	NR	0
ICE	0.001		0	NR	NR	NR	NR	0
HIST CORTESE	0.500		0	0	0	NR	NR	0
HWP	1.000		0	0	0	0	NR	0
HWT	0.250		0	0	NR	NR	NR	0
MINES	0.250		0	0	NR	NR	NR	0
MWMP	0.250		0	0	NR	NR	NR	0
NPDES	0.001		0	NR	NR	NR	NR	0
PEST LIC	0.001		0	NR	NR	NR	NR	0
PROC	0.500		0	0	0	NR	NR	0
Notify 65	1.000		0	0	0	0	NR	0
UIC	0.001		0	NR	NR	NR	NR	0
UIC GEO	0.001		0	NR	NR	NR	NR	0
WASTEWATER PITS	0.500		0	0	0	NR	NR	0
WDS	0.001		0	NR	NR	NR	NR	0
WIP	0.250		0	0	NR	NR	NR	0
MILITARY PRIV SITES	0.001		0	NR	NR	NR	NR	0
PROJECT	0.001		0	NR	NR	NR	NR	0
WDR	0.001		0	NR	NR	NR	NR	0
CIWQS	0.001		0	NR	NR	NR	NR	0
CERS	0.001		0	NR	NR	NR	NR	0
NON-CASE INFO	0.001		0	NR	NR	NR	NR	0
OTHER OIL GAS	0.001		0	NR	NR	NR	NR	0
PROD WATER PONDS	0.001		0	NR	NR	NR	NR	0
SAMPLING POINT	0.001		0	NR	NR	NR	NR	0
WELL STIM PROJ	0.001		0	NR	NR	NR	NR	0
MINES MRDS	0.001		0	NR	NR	NR	NR	0
HWTS	TP		NR	NR	NR	NR	NR	0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		0	NR	NR	NR	NR	0
EDR Hist Cleaner	0.125		0	NR	NR	NR	NR	0
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
RGA LF	0.001		0	NR	NR	NR	NR	0
RGA LUST	0.001		0	NR	NR	NR	NR	0
- Totals --		0	0	10	6	3	0	19

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

DOD **MARCH AIR FORCE BASE (CLOSED)** **DOD** **CUSA143538**
Region **N/A**
North **MARCH AIR FORCE BASE (CLO (County), CA**
1/4-1/2
1463 ft.

DOD:
Feature 1: Air Force DOD
Feature 2: Not reported
Feature 3: Not reported
URL: Not reported
Name 1: March Air Force Base (Closed)
Name 2: Not reported
Name 3: Not reported
State: CA
DOD Site: Yes
Tile name: CARIVERSIDE

NPL **MARCH AIR FORCE BASE** **NPL** **1000169261**
Region **22 CSG/CC** **SEMS** **CA4570024527**
NE **RIVERSIDE, CA 92518** **RCRA-LQG**
1/4-1/2 **US ENG CONTROLS**
1835 ft. **US INST CONTROLS**
ROD
PRP

NPL:
EPA Region: 9
EPA ID: CA4570024527
Site ID: 902761
Name: MARCH AIR FORCE BASE
Address: 22 CSG/CC
City,State,Zip: RIVERSIDE, CA 92518
Federal: Y
Final Date: 1989-11-21 00:00:00
Latitude: 33.906389
Longitude: -117.2557
Site Score: 31.940000000000001
NAI: Not reported
Native American Entity: Not reported

NPL:
NPL Status: Currently on the Final NPL
Substance ID: Not reported
CAS Number: Not reported
Substance: Not reported
Pathway: Not reported
Scoring: Not reported

NPL Status: Currently on the Final NPL
Substance ID: A046
CAS Number: 1336-36-3
Substance: POLYCHLORINATED BIPHENYLS
Pathway: GROUND WATER PATHWAY
Scoring: 3

NPL Status: Currently on the Final NPL
Substance ID: U210
CAS Number: 127-18-4
Substance: TETRACHLOROETHENE

MARCH AIR FORCE BASE (Continued) **1000169261**

Pathway: GROUND WATER PATHWAY
Scoring: 2

NPL Status: Currently on the Final NPL
Substance ID: U228
CAS Number: 79-01-6
Substance: TRICHLOROETHYLENE (TCE)
Pathway: GROUND WATER PATHWAY
Scoring: 2

Summary Details:

Conditions at proposal July 14, 1989): March Air Force Base MAFB) covers approximately 7,000 acres near Riverside in the Moreno Valley in Riverside County, California. MAFB is adjacent to light industrial, agricultural, and residential areas. Established in 1918 as the Alessandro Aviation Field, MAFB has served as a training base and refueling operations base. Industrial operations including aircraft maintenance and repair) involved use of solvents and disposal of solvent wastes. MAFB is participating in the Installation Restoration Program IRP), established in 1978. Under this program, the Department of Defense seeks to identify, investigate, and clean up contamination from ha ardous materials. As part ofIRP, the Air Force investigated 28 potentially contaminated disposal areas. MAFB Well No. 1 on-base was found to be contaminated with trichloroethylene, tetrachloroethylene, and cis-1,2-dichloroethylene at levels that exceed State drinking water standards. It was taken out of service. Soils on the base are contaminated with toluene and ben ene. An estimated 11,600 people obtain drinking water from municipal wells within 3 miles of ha ardous substances on MAFB. The Air Forceis conducting a remedial investigation/ feasibility study RI/FS) to determine the type and extent of contamination at the base and identify alternatives for remedial action. Status November 21, 1989): Field work continues on the RI/FS.

NPL:
NPL Status: Currently on the Final NPL
Category Description: Depth To Aquifer-> 50 And <= 100 Feet
Category Value: 65

NPL Status: Currently on the Final NPL
Category Description: Distance To Nearest Population-> 0 And <= 1/4 Mile
Category Value: 10

NPL:
NPL Name: MARCH AIR FORCE BASE

NPL:
EPA Region: 09
Site ID: 0902761
Site Status: F
Federal Site: Y
Date Deleted: Not reported
Date Finalized: 11/21/89
Date Proposed: 07/14/89

NPL:
Proposed Date: 07/14/1989

MARCH AIR FORCE BASE (Continued) **1000169261**

Final Date: 11/21/1989
Deleted Date: Not reported
NPL Status: Final

SEMS:
Site ID: 0902761
EPA ID: CA4570024527
Name: MARCH AIR FORCE BASE
Address: 22 CSG/CC
Address 2: Not reported
City,State,Zip: RIVERSIDE, CA 92518
Cong District: 41,43
FIPS Code: 06065
Latitude: 33.906389
Longitude: -117.255700
FF: Y
NPL: Currently on the Final NPL
Non NPL Status: Not reported

SEMS Detail:
Region: 09
Site ID: 0902761
EPA ID: CA4570024527
Site Name: MARCH AIR FORCE BASE
NPL: F
FF: Y
OU: 00
Action Code: AR
Action Name: ADMIN REC
SEQ: 1
Start Date: 2000-10-24 04:00:00
Finish Date: Not reported
Qual: Not reported
Current Action Lead: EPA Perf

Region: 09
Site ID: 0902761
EPA ID: CA4570024527
Site Name: MARCH AIR FORCE BASE
NPL: F
FF: Y
OU: 00
Action Code: NP
Action Name: PROPOSED
SEQ: 1
Start Date: 1989-07-14 04:00:00
Finish Date: 7/14/1989 4:00:00 AM
Qual: Not reported
Current Action Lead: EPA Perf

Region: 09
Site ID: 0902761
EPA ID: CA4570024527
Site Name: MARCH AIR FORCE BASE
NPL: F
FF: Y

MARCH AIR FORCE BASE (Continued) **1000169261**

OU: 00
Action Code: NF
Action Name: NPL FINL
SEQ: 1
Start Date: 1989-11-21 05:00:00
Finish Date: 11/21/1989 5:00:00 AM
Qual: Not reported
Current Action Lead: EPA Perf

Region: 09
Site ID: 0902761
EPA ID: CA4570024527
Site Name: MARCH AIR FORCE BASE
NPL: F
FF: Y
OU: 00
Action Code: HR
Action Name: HAZRANK
SEQ: 1
Start Date: 1987-06-01 04:00:00
Finish Date: 6/1/1987 4:00:00 AM
Qual: Not reported
Current Action Lead: EPA Perf

Region: 09
Site ID: 0902761
EPA ID: CA4570024527
Site Name: MARCH AIR FORCE BASE
NPL: F
FF: Y
OU: 02
Action Code: LW
Action Name: FF RI/FS
SEQ: 4
Start Date: 1992-01-24 05:00:00
Finish Date: 4/30/1995 4:00:00 AM
Qual: Not reported
Current Action Lead: Fed Fac

Region: 09
Site ID: 0902761
EPA ID: CA4570024527
Site Name: MARCH AIR FORCE BASE
NPL: F
FF: Y
OU: 02
Action Code: RO
Action Name: ROD
SEQ: 5
Start Date: 2005-09-30 04:00:00
Finish Date: 9/30/2005 4:00:00 AM
Qual: Not reported
Current Action Lead: Fed Fac

Region: 09
Site ID: 0902761
EPA ID: CA4570024527

MARCH AIR FORCE BASE (Continued) **1000169261**

Site Name:	MARCH AIR FORCE BASE
NPL:	F
FF:	Y
OU:	05
Action Code:	RO
Action Name:	ROD
SEQ:	6
Start Date:	2019-04-22 05:00:00
Finish Date:	4/22/2019 5:00:00 AM
Qual:	R
Current Action Lead:	Fed Fac

Region:	09
Site ID:	0902761
EPA ID:	CA4570024527
Site Name:	MARCH AIR FORCE BASE
NPL:	F
FF:	Y
OU:	00
Action Code:	SI
Action Name:	SI
SEQ:	1
Start Date:	1987-06-01 04:00:00
Finish Date:	6/1/1987 4:00:00 AM
Qual:	L
Current Action Lead:	Fed Fac

Region:	09
Site ID:	0902761
EPA ID:	CA4570024527
Site Name:	MARCH AIR FORCE BASE
NPL:	F
FF:	Y
OU:	05
Action Code:	LW
Action Name:	FF RI/FS
SEQ:	5
Start Date:	2005-10-30 04:00:00
Finish Date:	5/21/2015 5:00:00 AM
Qual:	Not reported
Current Action Lead:	Fed Fac

Region:	09
Site ID:	0902761
EPA ID:	CA4570024527
Site Name:	MARCH AIR FORCE BASE
NPL:	F
FF:	Y
OU:	02
Action Code:	RO
Action Name:	ROD
SEQ:	4
Start Date:	2004-05-11 04:00:00
Finish Date:	5/11/2004 4:00:00 AM
Qual:	Not reported
Current Action Lead:	Fed Fac

MARCH AIR FORCE BASE (Continued) **1000169261**

Region:	09
Site ID:	0902761
EPA ID:	CA4570024527
Site Name:	MARCH AIR FORCE BASE
NPL:	F
FF:	Y
OU:	01
Action Code:	LW
Action Name:	FF RI/FS
SEQ:	1
Start Date:	1990-09-27 04:00:00
Finish Date:	6/20/1996 4:00:00 AM
Qual:	Not reported
Current Action Lead:	Fed Fac

Region:	09
Site ID:	0902761
EPA ID:	CA4570024527
Site Name:	MARCH AIR FORCE BASE
NPL:	F
FF:	Y
OU:	04
Action Code:	LW
Action Name:	FF RI/FS
SEQ:	2
Start Date:	1990-09-27 04:00:00
Finish Date:	9/29/2005 4:00:00 AM
Qual:	Not reported
Current Action Lead:	Fed Fac

Region:	09
Site ID:	0902761
EPA ID:	CA4570024527
Site Name:	MARCH AIR FORCE BASE
NPL:	F
FF:	Y
OU:	04
Action Code:	RO
Action Name:	ROD
SEQ:	3
Start Date:	2005-09-29 04:00:00
Finish Date:	9/29/2005 4:00:00 AM
Qual:	Not reported
Current Action Lead:	Fed Fac

Region:	09
Site ID:	0902761
EPA ID:	CA4570024527
Site Name:	MARCH AIR FORCE BASE
NPL:	F
FF:	Y
OU:	01
Action Code:	LX
Action Name:	FF RD
SEQ:	1
Start Date:	1996-04-07 05:00:00
Finish Date:	4/18/1996 4:00:00 AM

MARCH AIR FORCE BASE (Continued) **1000169261**

Qual:	Not reported
Current Action Lead:	Fed Fac
Region:	09
Site ID:	0902761
EPA ID:	CA4570024527
Site Name:	MARCH AIR FORCE BASE
NPL:	F
FF:	Y
OU:	00
Action Code:	DS
Action Name:	DISCVRY
SEQ:	1
Start Date:	1985-02-01 06:00:00
Finish Date:	2/1/1985 6:00:00 AM
Qual:	Not reported
Current Action Lead:	Fed Fac
Region:	09
Site ID:	0902761
EPA ID:	CA4570024527
Site Name:	MARCH AIR FORCE BASE
NPL:	F
FF:	Y
OU:	01
Action Code:	LY
Action Name:	FF RA
SEQ:	1
Start Date:	1996-03-05 05:00:00
Finish Date:	Not reported
Qual:	Not reported
Current Action Lead:	Fed Fac
Region:	09
Site ID:	0902761
EPA ID:	CA4570024527
Site Name:	MARCH AIR FORCE BASE
NPL:	F
FF:	Y
OU:	02
Action Code:	RO
Action Name:	ROD
SEQ:	7
Start Date:	2004-04-01 05:00:00
Finish Date:	4/1/2004 5:00:00 AM
Qual:	Not reported
Current Action Lead:	Fed Fac
Region:	09
Site ID:	0902761
EPA ID:	CA4570024527
Site Name:	MARCH AIR FORCE BASE
NPL:	F
FF:	Y
OU:	02
Action Code:	LW
Action Name:	FF RI/FS

MARCH AIR FORCE BASE (Continued) **1000169261**

SEQ: 6
Start Date: 1995-07-01 04:00:00
Finish Date: 7/1/1997 4:00:00 AM
Qual: Not reported
Current Action Lead: Fed Fac

Region: 09
Site ID: 0902761
EPA ID: CA4570024527
Site Name: MARCH AIR FORCE BASE
NPL: F
FF: Y
OU: 01
Action Code: RO
Action Name: ROD
SEQ: 1
Start Date: 1996-06-20 04:00:00
Finish Date: 6/20/1996 4:00:00 AM
Qual: Not reported
Current Action Lead: Fed Fac

Region: 09
Site ID: 0902761
EPA ID: CA4570024527
Site Name: MARCH AIR FORCE BASE
NPL: F
FF: Y
OU: 00
Action Code: PA
Action Name: PA
SEQ: 1
Start Date: 1987-02-01 05:00:00
Finish Date: 2/1/1987 5:00:00 AM
Qual: L
Current Action Lead: Fed Fac

Region: 09
Site ID: 0902761
EPA ID: CA4570024527
Site Name: MARCH AIR FORCE BASE
NPL: F
FF: Y
OU: 01
Action Code: EE
Action Name: EE/CA
SEQ: 1
Start Date: 2018-11-12 06:00:00
Finish Date: 11/12/2018 6:00:00 AM
Qual: Not reported
Current Action Lead: Fed Fac

RCRA-LQG:
Date Form Received by Agency: 20200708
Handler Name: MARCH AIR RESERVE BASE
Handler Address: 610 MEYER DR
Handler City,State,Zip: MARCH ARB, CA 92518

MARCH AIR FORCE BASE (Continued) **1000169261**

EPA ID:	CA4570024527
Contact Name:	SEAN LEE
Contact Address:	MEYER DR
Contact City,State,Zip:	MARCH ARB, CA 92518
Contact Telephone:	951-655-5082
Contact Fax:	Not reported
Contact Email:	SEAN.LEE.19@US.AF.MIL
Contact Title:	HAZARDOUS MATERIALS / WASTE MANAGER
EPA Region:	09
Land Type:	Federal
Federal Waste Generator Description:	Large Quantity Generator
Non-Notifier:	Not reported
Biennial Report Cycle:	2019
Accessibility:	Not reported
Active Site Indicator:	Handler Activities
State District Owner:	Not reported
State District:	Not reported
Mailing Address:	MEYER DR
Mailing City,State,Zip:	MARCH ARB, CA 92518
Owner Name:	US AIR FORCE
Owner Type:	Federal
Operator Name:	BRIG. GEN MELISSA COBURN
Operator Type:	Federal
Short-Term Generator Activity:	No
Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility Activity:	No
Recycler Activity with Storage:	No
Small Quantity On-Site Burner Exemption:	No
Smelting Melting and Refining Furnace Exemption:	No
Underground Injection Control:	No
Off-Site Waste Receipt:	No
Universal Waste Indicator:	No
Universal Waste Destination Facility:	No
Federal Universal Waste:	No
Active Site Fed-Reg Treatment Storage and Disposal Facility:	Not reported
Active Site Converter Treatment storage and Disposal Facility:	Not reported
Active Site State-Reg Treatment Storage and Disposal Facility:	Not reported
Active Site State-Reg Handler:	---
Federal Facility Indicator:	The land is federally-owned, The site is federally-owned, The site is federally-operated
Hazardous Secondary Material Indicator:	N
Sub-Part K Indicator:	Not reported
Commercial TSD Indicator:	No
Treatment Storage and Disposal Type:	Not reported
2018 GPRA Permit Baseline:	Not on the Baseline
2018 GPRA Renewals Baseline:	Not on the Baseline
Permit Renewals Workload Universe:	Not reported
Permit Workload Universe:	Not reported
Permit Progress Universe:	Not reported
Post-Closure Workload Universe:	Not reported
Closure Workload Universe:	Not reported
202 GPRA Corrective Action Baseline:	No
Corrective Action Workload Universe:	No
Subject to Corrective Action Universe:	No
Non-TSDFs Where RCRA CA has Been Imposed Universe:	No

MARCH AIR FORCE BASE (Continued) **1000169261**

TSDFs Potentially Subject to CA Under 3004 (u)/(v) Universe:	No
TSDFs Only Subject to CA under Discretionary Auth Universe:	No
Corrective Action Priority Ranking:	No NCAPS ranking
Environmental Control Indicator:	No
Institutional Control Indicator:	No
Human Exposure Controls Indicator:	N/A
Groundwater Controls Indicator:	N/A
Operating TSDF Universe:	Not reported
Full Enforcement Universe:	Not reported
Significant Non-Complier Universe:	No
Unaddressed Significant Non-Complier Universe:	No
Addressed Significant Non-Complier Universe:	No
Significant Non-Complier With a Compliance Schedule Universe:	No
Financial Assurance Required:	Not reported
Handler Date of Last Change:	20200928
Recognized Trader-Importer:	No
Recognized Trader-Exporter:	No
Importer of Spent Lead Acid Batteries:	No
Exporter of Spent Lead Acid Batteries:	No
Recycler Activity Without Storage:	No
Manifest Broker:	No
Sub-Part P Indicator:	No

Biennial: List of Years
Year: 2019

Click Here for Biennial Reporting System Data:
Year: 2015

Click Here for Biennial Reporting System Data:
Year: 2013

Click Here for Biennial Reporting System Data:
Year: 2011

Click Here for Biennial Reporting System Data:
Year: 2009

Click Here for Biennial Reporting System Data:
Year: 2007

Click Here for Biennial Reporting System Data:
Year: 2005

Click Here for Biennial Reporting System Data:
Year: 2003

Click Here for Biennial Reporting System Data:
Year: 2001

Click Here for Biennial Reporting System Data:

Hazardous Waste Summary:
Waste Code: D001
Waste Description: IGNITABLE WASTE

MARCH AIR FORCE BASE (Continued) **1000169261**

Waste Code: D002
Waste Description: CORROSIVE WASTE

Waste Code: D003
Waste Description: REACTIVE WASTE

Waste Code: D004
Waste Description: ARSENIC

Waste Code: D005
Waste Description: BARIUM

Waste Code: D006
Waste Description: CADMIUM

Waste Code: D007
Waste Description: CHROMIUM

Waste Code: D008
Waste Description: LEAD

Waste Code: D009
Waste Description: MERCURY

Waste Code: D011
Waste Description: SILVER

Waste Code: D018
Waste Description: BENZENE

Waste Code: D021
Waste Description: CHLOROBENZENE

Waste Code: D035
Waste Description: METHYL ETHYL KETONE

Waste Code: D039
Waste Description: TETRACHLOROETHYLENE

Waste Code: D040
Waste Description: TRICHLORETHYLENE

Waste Code: F001
Waste Description: THE FOLLOWING SPENT HALOGENATED SOLVENTS USED IN DEGREASING: TETRACHLOROETHYLENE, TRICHLORETHYLENE, METHYLENE CHLORIDE, 1,1,1-TRICHLOROETHANE, CARBON TETRACHLORIDE AND CHLORINATED FLUOROCARBONS; ALL SPENT SOLVENT MIXTURES/BLENDS USED IN DEGREASING CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Waste Code: F002
Waste Description: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2,

MARCH AIR FORCE BASE (Continued) **1000169261**

TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Waste Code: F003
Waste Description: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Waste Code: F005
Waste Description: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Waste Code: P098
Waste Description: POTASSIUM CYANIDE (OR) POTASSIUM CYANIDE K(CN)

Waste Code: U188
Waste Description: PHENOL

Waste Code: U227
Waste Description: 1,1,2-TRICHLOROETHANE (OR) ETHANE, 1,1,2-TRICHLORO-

Handler - Owner Operator:

Owner/Operator Indicator:	Owner
Owner/Operator Name:	US AIR FORCE
Legal Status:	Federal
Date Became Current:	19450101
Date Ended Current:	Not reported
Owner/Operator Address:	2145 GRAEBER
Owner/Operator City,State,Zip:	MARCH ARB, CA 92518
Owner/Operator Telephone:	951-655-4665
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Owner/Operator Indicator:	Operator
Owner/Operator Name:	MULTIPLE OPS - ALL USAF COMMANDS
Legal Status:	Federal
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	22 CSG/CC
Owner/Operator City,State,Zip:	CITY NOT REPORTED, CA 99999
Owner/Operator Telephone:	714-655-4735

MARCH AIR FORCE BASE (Continued) **1000169261**

Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported
Owner/Operator Indicator:	Operator
Owner/Operator Name:	COL. RUSSELL A MUNCY
Legal Status:	Federal
Date Became Current:	20131101
Date Ended Current:	Not reported
Owner/Operator Address:	Not reported
Owner/Operator City,State,Zip:	Not reported
Owner/Operator Telephone:	Not reported
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported
Owner/Operator Indicator:	Owner
Owner/Operator Name:	UNITED STATES AIR FORCE
Legal Status:	Private
Date Became Current:	19180101
Date Ended Current:	Not reported
Owner/Operator Address:	2145 GRAEBER STREET, ST 117
Owner/Operator City,State,Zip:	MARCH AIR RESERVE BASE, CA 92518
Owner/Operator Telephone:	Not reported
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported
Owner/Operator Indicator:	Operator
Owner/Operator Name:	COLONEL JAMES T. RUBEOR
Legal Status:	Federal
Date Became Current:	20030719
Date Ended Current:	Not reported
Owner/Operator Address:	Not reported
Owner/Operator City,State,Zip:	Not reported
Owner/Operator Telephone:	Not reported
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported
Owner/Operator Indicator:	Operator
Owner/Operator Name:	GENERAL JAMES L. MELIN
Legal Status:	Private
Date Became Current:	20060723
Date Ended Current:	Not reported
Owner/Operator Address:	Not reported
Owner/Operator City,State,Zip:	Not reported
Owner/Operator Telephone:	Not reported
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported
Owner/Operator Indicator:	Owner
Owner/Operator Name:	USAF RESERVE COMMAND
Legal Status:	Federal
Date Became Current:	19180101
Date Ended Current:	Not reported

MARCH AIR FORCE BASE (Continued) **1000169261**

Owner/Operator Address:	2145 GRABER STREET SUITE 117
Owner/Operator City,State,Zip:	MARCH ARB, CA 92518-2166
Owner/Operator Telephone:	951-655-4520
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported
Owner/Operator Indicator:	Operator
Owner/Operator Name:	BRIG. GEN MELISSA COBURN
Legal Status:	Federal
Date Became Current:	20190101
Date Ended Current:	Not reported
Owner/Operator Address:	2145 GRAEBER ST., STE 117
Owner/Operator City,State,Zip:	MARCH AIR RESERVE BASE, CA 92518
Owner/Operator Telephone:	951-655-4520
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	MELISSA.COBURN@US.AF.MIL
Owner/Operator Indicator:	Operator
Owner/Operator Name:	GEN. RUSSELL A. MUNCY
Legal Status:	Federal
Date Became Current:	20131101
Date Ended Current:	Not reported
Owner/Operator Address:	Not reported
Owner/Operator City,State,Zip:	Not reported
Owner/Operator Telephone:	Not reported
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported
Owner/Operator Indicator:	Operator
Owner/Operator Name:	GENERAL JAMES T. RUBEOR
Legal Status:	Federal
Date Became Current:	20030719
Date Ended Current:	Not reported
Owner/Operator Address:	Not reported
Owner/Operator City,State,Zip:	Not reported
Owner/Operator Telephone:	Not reported
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported
Owner/Operator Indicator:	Operator
Owner/Operator Name:	COL MARY ARB
Legal Status:	Federal
Date Became Current:	20100101
Date Ended Current:	Not reported
Owner/Operator Address:	2145 GRABER STREET SUITE 117
Owner/Operator City,State,Zip:	MARCH ARB, CA 92518-2166
Owner/Operator Telephone:	Not reported
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported
Owner/Operator Indicator:	Owner
Owner/Operator Name:	US AIR FORCE

MARCH AIR FORCE BASE (Continued) **1000169261**

Legal Status:	Federal
Date Became Current:	19470101
Date Ended Current:	Not reported
Owner/Operator Address:	2145 GRAEBER ST, BLDG 470
Owner/Operator City,State,Zip:	MARCH ARB, CA 92518
Owner/Operator Telephone:	951-655-4665
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Owner/Operator Indicator:	Owner
Owner/Operator Name:	US AIR FORCE
Legal Status:	Federal
Date Became Current:	19450101
Date Ended Current:	Not reported
Owner/Operator Address:	2145 GRAEBER
Owner/Operator City,State,Zip:	MARCH ARB, CA 92518
Owner/Operator Telephone:	951-655-4665
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Owner/Operator Indicator:	Owner
Owner/Operator Name:	USAF RESERVE COMMAND
Legal Status:	Federal
Date Became Current:	20060723
Date Ended Current:	Not reported
Owner/Operator Address:	2145 GRAEBER STREET, ST 117
Owner/Operator City,State,Zip:	MARCH AIR RESERVE BASE, CA 92518
Owner/Operator Telephone:	951-655-4520
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Owner/Operator Indicator:	Operator
Owner/Operator Name:	GENERAL JAMES L. MELIN
Legal Status:	Federal
Date Became Current:	20060723
Date Ended Current:	Not reported
Owner/Operator Address:	Not reported
Owner/Operator City,State,Zip:	CA 92518
Owner/Operator Telephone:	Not reported
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Owner/Operator Indicator:	Owner
Owner/Operator Name:	USAF
Legal Status:	Federal
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	452 SPTG CEV
Owner/Operator City,State,Zip:	MARCH ARB, CA 92518-2166
Owner/Operator Telephone:	909-655-5069
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

MARCH AIR FORCE BASE (Continued) **1000169261**

Owner/Operator Indicator: Owner
Owner/Operator Name: US AIR FORCE
Legal Status: Federal
Date Became Current: 19180101
Date Ended Current: Not reported
Owner/Operator Address: 2145 GRAEBER ST., SUITE 117
Owner/Operator City,State,Zip: MARCH AIR RESERVE BASE, CA 92518-1667
Owner/Operator Telephone: Not reported
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Owner
Owner/Operator Name: UNITED STATES AIR FORCE
Legal Status: Federal
Date Became Current: 19180101
Date Ended Current: Not reported
Owner/Operator Address: 2145 GRAEBER STREET, SUITE 117
Owner/Operator City,State,Zip: MARCH AIR RESERVE BASE, CA 92518
Owner/Operator Telephone: Not reported
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Historic Generators:
Receive Date: 20100715
Handler Name: MARCH AIR RESERVE BASE
Federal Waste Generator Description: Large Quantity Generator
State District Owner: Not reported
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 20130320
Handler Name: MARCH AIR RESERVE BASE
Federal Waste Generator Description: Large Quantity Generator
State District Owner: Not reported
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 20141022
Handler Name: MARCH AIR RESERVE BASE
Federal Waste Generator Description: Large Quantity Generator
State District Owner: Not reported
Large Quantity Handler of Universal Waste: Yes
Recognized Trader Importer: No

MARCH AIR FORCE BASE (Continued) **1000169261**

Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 20160229
Handler Name: MARCH AIR RESERVE BASE
Federal Waste Generator Description: Large Quantity Generator
State District Owner: Not reported
Large Quantity Handler of Universal Waste: Yes
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 20200708
Handler Name: MARCH AIR RESERVE BASE
Federal Waste Generator Description: Large Quantity Generator
State District Owner: Not reported
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: Yes
Non Storage Recycler Activity: No
Electronic Manifest Broker: No

Receive Date: 19960901
Handler Name: MARCH AIR RESERVE BASE
Federal Waste Generator Description: Large Quantity Generator
State District Owner: Not reported
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 20000714
Handler Name: MARCH AIR RESERVE BASE
Federal Waste Generator Description: Large Quantity Generator
State District Owner: Not reported
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: No
Non Storage Recycler Activity: Not reported

MARCH AIR FORCE BASE (Continued) **1000169261**

Electronic Manifest Broker: Not reported

Receive Date: 19920330
Handler Name: MARCH AIR FORCE BASE
Federal Waste Generator Description: Large Quantity Generator
State District Owner: Not reported
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 19940331
Handler Name: MARCH AIR FORCE BASE, CA
Federal Waste Generator Description: Large Quantity Generator
State District Owner: Not reported
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 19960326
Handler Name: MARCH AFB, CA
Federal Waste Generator Description: Large Quantity Generator
State District Owner: Not reported
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 19990304
Handler Name: MARCH ARB, CA
Federal Waste Generator Description: Large Quantity Generator
State District Owner: Not reported
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 20001012
Handler Name: MARCH ARB CA
Federal Waste Generator Description: Large Quantity Generator

MARCH AIR FORCE BASE (Continued) **1000169261**

State District Owner: Not reported
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 20020410
Handler Name: MARCH AIR RESERVE BASE
Federal Waste Generator Description: Large Quantity Generator
State District Owner: Not reported
Large Quantity Handler of Universal Waste: Yes
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 20040225
Handler Name: MARCH AIR RESERVE BASE
Federal Waste Generator Description: Large Quantity Generator
State District Owner: Not reported
Large Quantity Handler of Universal Waste: Yes
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 20060208
Handler Name: MARCH AIR RESERVE BASE
Federal Waste Generator Description: Large Quantity Generator
State District Owner: Not reported
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 20080326
Handler Name: MARCH AIR RESERVE BASE
Federal Waste Generator Description: Large Quantity Generator
State District Owner: Not reported
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No

MARCH AIR FORCE BASE (Continued) **1000169261**

Spent Lead Acid Battery Exporter: No
Current Record: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

List of NAICS Codes and Descriptions:
NAICS Code: 92811
NAICS Description: NATIONAL SECURITY

NAICS Code: 92812
NAICS Description: INTERNATIONAL AFFAIRS

Facility Has Received Notices of Violation:
Found Violation: No
Agency Which Determined Violation: Not reported
Violation Short Description: Not reported
Date Violation was Determined: Not reported
Actual Return to Compliance Date: Not reported
Return to Compliance Qualifier: Not reported
Violation Responsible Agency: Not reported
Scheduled Compliance Date: Not reported
Enforcement Identifier: Not reported
Date of Enforcement Action: Not reported
Enforcement Responsible Agency: Not reported
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: Not reported
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: EPA
Violation Short Description: Generators - General
Date Violation was Determined: 19950427
Actual Return to Compliance Date: 20000427

MARCH AIR FORCE BASE (Continued) **1000169261**

Return to Compliance Qualifier: Not Resolved
Violation Responsible Agency: EPA
Scheduled Compliance Date: Not reported
Enforcement Identifier: 002
Date of Enforcement Action: 19950428
Enforcement Responsible Agency: EPA
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: WRITTEN INFORMAL
Enforcement Responsible Person: R9STA
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: Yes
Agency Which Determined Violation: EPA
Violation Short Description: Generators - General
Date Violation was Determined: 19840305
Actual Return to Compliance Date: 19950404
Return to Compliance Qualifier: Unverifiable
Violation Responsible Agency: EPA
Scheduled Compliance Date: Not reported
Enforcement Identifier: 001
Date of Enforcement Action: 19840518
Enforcement Responsible Agency: EPA
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: No
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: WRITTEN INFORMAL
Enforcement Responsible Person: R9EPA

MARCH AIR FORCE BASE (Continued) **1000169261**

Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Found Violation: No
Agency Which Determined Violation: Not reported
Violation Short Description: Not reported
Date Violation was Determined: Not reported
Actual Return to Compliance Date: Not reported
Return to Compliance Qualifier: Not reported
Violation Responsible Agency: Not reported
Scheduled Compliance Date: Not reported
Enforcement Identifier: Not reported
Date of Enforcement Action: Not reported
Enforcement Responsible Agency: Not reported
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: Not reported
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported
Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Evaluation Action Summary:
Evaluation Date: 20061102
Evaluation Responsible Agency: State
Found Violation: No
Evaluation Type Description: COMPLIANCE EVALUATION INSPECTION ON-SITE

MARCH AIR FORCE BASE (Continued) **1000169261**

Evaluation Responsible Person Identifier:	Not reported
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	Not reported
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	19950404
Evaluation Responsible Agency:	EPA
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	R9EPA
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	20000427
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	19840305
Evaluation Responsible Agency:	EPA
Found Violation:	Yes
Evaluation Type Description:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier:	R9EPA
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	19950404
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

Evaluation Date:	19960506
Evaluation Responsible Agency:	State
Found Violation:	No
Evaluation Type Description:	FOLLOW-UP INSPECTION
Evaluation Responsible Person Identifier:	R9STA
Evaluation Responsible Sub-Organization:	Not reported
Actual Return to Compliance Date:	Not reported
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

MARCH AIR FORCE BASE (Continued) **1000169261**

SIte:

Name:	MARCH AIR FORCE BASE
Address:	22 CSG/CC
Address 2:	Not reported
City,State,Zip:	RIVERSIDE, CA 92518
Event Code:	Not reported
Action Taken Date:	08/01/2017
EPA ID:	CA4570024527
Action Name:	ROD Amendment
Action ID:	1
Operable Unit:	01
Contaminated Media:	Soil
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	2017
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	33.906389
Longitude:	-117.255700

Media:

EPA ID:	CA4570024527
Contaminated Media:	Not reported
Action ID:	7
Operable Unit:	02
Action Name:	Record of Decision
Action Taken Date:	04/01/2004
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	2004
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	33.906389
Longitude:	-117.255700

EPA ID:	CA4570024527
Contaminated Media:	Soil
Action ID:	1
Operable Unit:	01
Action Name:	Explanation of Significant Differences
Action Taken Date:	08/24/2000
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	2000
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	33.906389
Longitude:	-117.255700

MARCH AIR FORCE BASE (Continued) **1000169261**

EPA ID:	CA4570024527
Contaminated Media:	Soil
Action ID:	1
Operable Unit:	01
Action Name:	ROD Amendment
Action Taken Date:	08/01/2017
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	2017
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	33.906389
Longitude:	-117.255700

EPA ID:	CA4570024527
Contaminated Media:	Soil
Action ID:	1
Operable Unit:	01
Action Name:	ROD Amendment
Action Taken Date:	08/01/2017
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	2017
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	33.906389
Longitude:	-117.255700

EPA ID:	CA4570024527
Contaminated Media:	Soil
Action ID:	1
Operable Unit:	01
Action Name:	ROD Amendment
Action Taken Date:	08/01/2017
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	2017
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	33.906389
Longitude:	-117.255700

EPA ID:	CA4570024527
Contaminated Media:	Soil
Action ID:	1
Operable Unit:	01
Action Name:	ROD Amendment
Action Taken Date:	08/01/2017

MARCH AIR FORCE BASE (Continued) **1000169261**

Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	2017
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	33.906389
Longitude:	-117.255700

EPA ID:	CA4570024527
Contaminated Media:	Soil
Action ID:	1
Operable Unit:	01
Action Name:	ROD Amendment
Action Taken Date:	08/01/2017
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	2017
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	33.906389
Longitude:	-117.255700

EPA ID:	CA4570024527
Contaminated Media:	Soil
Action ID:	1
Operable Unit:	01
Action Name:	ROD Amendment
Action Taken Date:	08/01/2017
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	2017
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	33.906389
Longitude:	-117.255700

EPA ID:	CA4570024527
Contaminated Media:	Groundwater
Action ID:	5
Operable Unit:	02
Action Name:	Record of Decision
Action Taken Date:	09/30/2005
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	2005

MARCH AIR FORCE BASE (Continued) **1000169261**

NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	33.906389
Longitude:	-117.255700

EPA ID:	CA4570024527
Contaminated Media:	Soil
Action ID:	5
Operable Unit:	02
Action Name:	Record of Decision
Action Taken Date:	09/30/2005
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	2005
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	33.906389
Longitude:	-117.255700

EPA ID:	CA4570024527
Contaminated Media:	Soil Gas
Action ID:	1
Operable Unit:	01
Action Name:	ROD Amendment
Action Taken Date:	08/01/2017
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	2017
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	33.906389
Longitude:	-117.255700

EPA ID:	CA4570024527
Contaminated Media:	Soil
Action ID:	3
Operable Unit:	02
Action Name:	ROD Amendment
Action Taken Date:	12/12/2016
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	2017
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	33.906389
Longitude:	-117.255700

EPA ID: CA4570024527

MARCH AIR FORCE BASE (Continued) **1000169261**

Contaminated Media: Groundwater
Action ID: 1
Operable Unit: 01
Action Name: Record of Decision
Action Taken Date: 06/20/1996
Event Code: Not reported
Contact Name: Not reported
Contact Telephone: Not reported
Event: Not reported
Federal Facility: Y
Fiscal Year: 1996
NPL Status: Currently on the Final NPL
Superfund Alternative Agreement: N
Latitude: 33.906389
Longitude: -117.255700

EPA ID: CA4570024527
Contaminated Media: Soil
Action ID: 1
Operable Unit: 01
Action Name: Record of Decision
Action Taken Date: 06/20/1996
Event Code: Not reported
Contact Name: Not reported
Contact Telephone: Not reported
Event: Not reported
Federal Facility: Y
Fiscal Year: 1996
NPL Status: Currently on the Final NPL
Superfund Alternative Agreement: N
Latitude: 33.906389
Longitude: -117.255700

EPA ID: CA4570024527
Contaminated Media: Groundwater
Action ID: 1
Operable Unit: 01
Action Name: Record of Decision
Action Taken Date: 06/20/1996
Event Code: Not reported
Contact Name: Not reported
Contact Telephone: Not reported
Event: Not reported
Federal Facility: Y
Fiscal Year: 1996
NPL Status: Currently on the Final NPL
Superfund Alternative Agreement: N
Latitude: 33.906389
Longitude: -117.255700

EPA ID: CA4570024527
Contaminated Media: Soil
Action ID: 1
Operable Unit: 01
Action Name: Record of Decision
Action Taken Date: 06/20/1996
Event Code: Not reported

MARCH AIR FORCE BASE (Continued) **1000169261**

Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	1996
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	33.906389
Longitude:	-117.255700

EPA ID:	CA4570024527
Contaminated Media:	Groundwater
Action ID:	1
Operable Unit:	01
Action Name:	Record of Decision
Action Taken Date:	06/20/1996
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	1996
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	33.906389
Longitude:	-117.255700

EPA ID:	CA4570024527
Contaminated Media:	Soil
Action ID:	1
Operable Unit:	01
Action Name:	Record of Decision
Action Taken Date:	06/20/1996
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	1996
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	33.906389
Longitude:	-117.255700

EPA ID:	CA4570024527
Contaminated Media:	Free-phase NAPL
Action ID:	1
Operable Unit:	01
Action Name:	Record of Decision
Action Taken Date:	06/20/1996
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	1996
NPL Status:	Currently on the Final NPL

MARCH AIR FORCE BASE (Continued) **1000169261**

Superfund Alternative Agreement: N
Latitude: 33.906389
Longitude: -117.255700

EPA ID: CA4570024527
Contaminated Media: Groundwater
Action ID: 1
Operable Unit: 01
Action Name: Record of Decision
Action Taken Date: 06/20/1996
Event Code: Not reported
Contact Name: Not reported
Contact Telephone: Not reported
Event: Not reported
Federal Facility: Y
Fiscal Year: 1996
NPL Status: Currently on the Final NPL
Superfund Alternative Agreement: N
Latitude: 33.906389
Longitude: -117.255700

EPA ID: CA4570024527
Contaminated Media: Groundwater
Action ID: 1
Operable Unit: 01
Action Name: Record of Decision
Action Taken Date: 06/20/1996
Event Code: Not reported
Contact Name: Not reported
Contact Telephone: Not reported
Event: Not reported
Federal Facility: Y
Fiscal Year: 1996
NPL Status: Currently on the Final NPL
Superfund Alternative Agreement: N
Latitude: 33.906389
Longitude: -117.255700

EPA ID: CA4570024527
Contaminated Media: Groundwater
Action ID: 1
Operable Unit: 01
Action Name: Record of Decision
Action Taken Date: 06/20/1996
Event Code: Not reported
Contact Name: Not reported
Contact Telephone: Not reported
Event: Not reported
Federal Facility: Y
Fiscal Year: 1996
NPL Status: Currently on the Final NPL
Superfund Alternative Agreement: N
Latitude: 33.906389
Longitude: -117.255700

EPA ID: CA4570024527
Contaminated Media: Soil

MARCH AIR FORCE BASE (Continued) **1000169261**

Action ID:	1
Operable Unit:	01
Action Name:	Record of Decision
Action Taken Date:	06/20/1996
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	1996
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	33.906389
Longitude:	-117.255700

EPA ID:	CA4570024527
Contaminated Media:	Soil
Action ID:	1
Operable Unit:	01
Action Name:	Record of Decision
Action Taken Date:	06/20/1996
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	1996
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	33.906389
Longitude:	-117.255700

EPA ID:	CA4570024527
Contaminated Media:	Free-phase NAPL
Action ID:	1
Operable Unit:	01
Action Name:	Record of Decision
Action Taken Date:	06/20/1996
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	1996
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	33.906389
Longitude:	-117.255700

EPA ID:	CA4570024527
Contaminated Media:	Groundwater
Action ID:	1
Operable Unit:	01
Action Name:	Record of Decision
Action Taken Date:	06/20/1996
Event Code:	Not reported
Contact Name:	Not reported

MARCH AIR FORCE BASE (Continued) **1000169261**

Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	1996
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	33.906389
Longitude:	-117.255700

EPA ID:	CA4570024527
Contaminated Media:	Soil
Action ID:	1
Operable Unit:	01
Action Name:	Record of Decision
Action Taken Date:	06/20/1996
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	1996
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	33.906389
Longitude:	-117.255700

EPA ID:	CA4570024527
Contaminated Media:	Soil
Action ID:	3
Operable Unit:	04
Action Name:	Record of Decision
Action Taken Date:	09/29/2005
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	2005
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	33.906389
Longitude:	-117.255700

EPA ID:	CA4570024527
Contaminated Media:	Groundwater
Action ID:	3
Operable Unit:	04
Action Name:	Record of Decision
Action Taken Date:	09/29/2005
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	2005
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N

MARCH AIR FORCE BASE (Continued) **1000169261**

Latitude:	33.906389
Longitude:	-117.255700
EPA ID:	CA4570024527
Contaminated Media:	Soil
Action ID:	3
Operable Unit:	04
Action Name:	Record of Decision
Action Taken Date:	09/29/2005
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	2005
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	33.906389
Longitude:	-117.255700
EPA ID:	CA4570024527
Contaminated Media:	Free-phase NAPL
Action ID:	1
Operable Unit:	01
Action Name:	Record of Decision
Action Taken Date:	06/20/1996
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	1996
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	33.906389
Longitude:	-117.255700
EPA ID:	CA4570024527
Contaminated Media:	Soil
Action ID:	1
Operable Unit:	01
Action Name:	Record of Decision
Action Taken Date:	06/20/1996
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	1996
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	33.906389
Longitude:	-117.255700
EPA ID:	CA4570024527
Contaminated Media:	Soil
Action ID:	1

MARCH AIR FORCE BASE (Continued) **1000169261**

Operable Unit:	01
Action Name:	Record of Decision
Action Taken Date:	06/20/1996
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	1996
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	33.906389
Longitude:	-117.255700

US INST CONTROLS:

Name:	MARCH AIR FORCE BASE
Address:	22 CSG/CC
Address 2:	Not reported
City,State,Zip:	RIVERSIDE, CA 92518
EPA ID:	CA4570024527
Action Name:	ROD Amendment
Action ID:	1
Operable Unit:	01
Actual Date:	08/01/2017
Contaminated Media:	Soil Gas
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	2017
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	33.906389
Longitude:	-117.255700

Name:	MARCH AIR FORCE BASE
Address:	22 CSG/CC
Address 2:	Not reported
City,State,Zip:	RIVERSIDE, CA 92518
EPA ID:	CA4570024527
Action Name:	Record of Decision
Action ID:	3
Operable Unit:	04
Actual Date:	09/29/2005
Contaminated Media:	Soil
Event Code:	Not reported
Contact Name:	Not reported
Contact Telephone:	Not reported
Event:	Not reported
Federal Facility:	Y
Fiscal Year:	2005
NPL Status:	Currently on the Final NPL
Superfund Alternative Agreement:	N
Latitude:	33.906389
Longitude:	-117.255700

MARCH AIR FORCE BASE (Continued) **1000169261**

Name: MARCH AIR FORCE BASE
Address: 22 CSG/CC
Address 2: Not reported
City,State,Zip: RIVERSIDE, CA 92518
EPA ID: CA4570024527
Action Name: Record of Decision
Action ID: 4
Operable Unit: 02
Actual Date: 05/11/2004
Contaminated Media: Groundwater
Event Code: Not reported
Contact Name: Not reported
Contact Telephone: Not reported
Event: Not reported
Federal Facility: Y
Fiscal Year: 2004
NPL Status: Currently on the Final NPL
Superfund Alternative Agreement: N
Latitude: 33.906389
Longitude: -117.255700

Name: MARCH AIR FORCE BASE
Address: 22 CSG/CC
Address 2: Not reported
City,State,Zip: RIVERSIDE, CA 92518
EPA ID: CA4570024527
Action Name: Record of Decision
Action ID: 4
Operable Unit: 02
Actual Date: 05/11/2004
Contaminated Media: Soil
Event Code: Not reported
Contact Name: Not reported
Contact Telephone: Not reported
Event: Not reported
Federal Facility: Y
Fiscal Year: 2004
NPL Status: Currently on the Final NPL
Superfund Alternative Agreement: N
Latitude: 33.906389
Longitude: -117.255700

Name: MARCH AIR FORCE BASE
Address: 22 CSG/CC
Address 2: Not reported
City,State,Zip: RIVERSIDE, CA 92518
EPA ID: CA4570024527
Action Name: Record of Decision
Action ID: 5
Operable Unit: 02
Actual Date: 09/30/2005
Contaminated Media: Soil
Event Code: Not reported
Contact Name: Not reported
Contact Telephone: Not reported
Event: Not reported
Federal Facility: Y

MARCH AIR FORCE BASE (Continued) **1000169261**

Fiscal Year: 2005
NPL Status: Currently on the Final NPL
Superfund Alternative Agreement: N
Latitude: 33.906389
Longitude: -117.255700

ROD:
Name: MARCH AIR FORCE BASE
Address: 22 CSG/CC
City,State,Zip: RIVERSIDE, CA 92518
EPA ID: CA4570024527
RG: 9
Site ID: 902761
Action: FF ESD
Operable Unit Number: EAST MARCH - SOILS/GW
SEQ ID: 1
Action Completion: 2000-08-24 00:00:00
NPL Status: Final
Non NPL Status: Not reported

Name: MARCH AIR FORCE BASE
Address: 22 CSG/CC
City,State,Zip: RIVERSIDE, CA 92518
EPA ID: CA4570024527
RG: 9
Site ID: 902761
Action: FF ROD (RCRA Statement of Basis/RTC)
Operable Unit Number: EAST MARCH - SOILS/GW
SEQ ID: 1
Action Completion: 1996-06-20 00:00:00
NPL Status: Final
Non NPL Status: Not reported

Name: MARCH AIR FORCE BASE
Address: 22 CSG/CC
City,State,Zip: RIVERSIDE, CA 92518
EPA ID: CA4570024527
RG: 9
Site ID: 902761
Action: FF ROD (RCRA Statement of Basis/RTC)
Operable Unit Number: BASEWIDE
SEQ ID: 3
Action Completion: 2005-09-29 00:00:00
NPL Status: Final
Non NPL Status: Not reported

Name: MARCH AIR FORCE BASE
Address: 22 CSG/CC
City,State,Zip: RIVERSIDE, CA 92518
EPA ID: CA4570024527
RG: 9
Site ID: 902761
Action: FF ROD (RCRA Statement of Basis/RTC)
Operable Unit Number: WEST MARCH - SOILS/GW
SEQ ID: 4
Action Completion: 2004-05-11 00:00:00
NPL Status: Final

MARCH AIR FORCE BASE (Continued) **1000169261**

Non NPL Status: Not reported

Name: MARCH AIR FORCE BASE
Address: 22 CSG/CC
City,State,Zip: RIVERSIDE, CA 92518
EPA ID: CA4570024527
RG: 9
Site ID: 902761
Action: FF ROD (RCRA Statement of Basis/RTC)
Operable Unit Number: WEST MARCH - SOILS/GW
SEQ ID: 5
Action Completion: 2005-09-30 00:00:00
NPL Status: Final
Non NPL Status: Not reported

Name: MARCH AIR FORCE BASE
Address: 22 CSG/CC
City,State,Zip: RIVERSIDE, CA 92518
EPA ID: CA4570024527
RG: 9
Site ID: 902761
Action: FF ROD (RCRA Statement of Basis/RTC)
Operable Unit Number: SITEWIDE GW
SEQ ID: 6
Action Completion: 2019-04-22 00:00:00
NPL Status: Final
Non NPL Status: Not reported

Name: MARCH AIR FORCE BASE
Address: 22 CSG/CC
City,State,Zip: RIVERSIDE, CA 92518
EPA ID: CA4570024527
RG: 9
Site ID: 902761
Action: FF ROD (RCRA Statement of Basis/RTC)
Operable Unit Number: WEST MARCH - SOILS/GW
SEQ ID: 7
Action Completion: 2004-04-01 00:00:00
NPL Status: Final
Non NPL Status: Not reported

Name: MARCH AIR FORCE BASE
Address: 22 CSG/CC
City,State,Zip: RIVERSIDE, CA 92518
EPA ID: CA4570024527
RG: 9
Site ID: 902761
Action: FF ROD Amendment
Operable Unit Number: EAST MARCH - SOILS/GW
SEQ ID: 1
Action Completion: 2017-08-01 00:00:00
NPL Status: Final
Non NPL Status: Not reported

Name: MARCH AIR FORCE BASE
Address: 22 CSG/CC
City,State,Zip: RIVERSIDE, CA 92518

MARCH AIR FORCE BASE (Continued) **1000169261**

EPA ID: CA4570024527
RG: 9
Site ID: 902761
Action: FF ROD Amendment
Operable Unit Number: EAST MARCH - SOILS/GW
SEQ ID: 2
Action Completion: 2019-02-25 00:00:00
NPL Status: Final
Non NPL Status: Not reported

Name: MARCH AIR FORCE BASE
Address: 22 CSG/CC
City,State,Zip: RIVERSIDE, CA 92518
EPA ID: CA4570024527
RG: 9
Site ID: 902761
Action: FF ROD Amendment
Operable Unit Number: WEST MARCH - SOILS/GW
SEQ ID: 3
Action Completion: 2016-12-12 00:00:00
NPL Status: Final
Non NPL Status: Not reported

PRP:
PRP Name: STATE OF CALIFORNIA/DEPT. OF HEALTH SERVICES
STATE OF CALIFORNIA/DEPT. OF WATER QUALITY
U.S. AIR FORCE
U.S. AIR FORCE

A1 **GARCIA JUAREZ CONSTRUCTION COMPANY** **AST** **A100420256**
WSW **4517 WADE AVE** **N/A**
1/8-1/4 **PERRIS, CA 92571**
0.175 mi.
926 ft. **Site 1 of 6 in cluster A**

Relative:
Higher

Actual:
1510 ft.

AST:
Name: GARCIA JUAREZ CONSTRUCTION COMPANY
Address: 4517 WADE AVE
City/Zip: PERRIS,92571
Certified Unified Program Agencies: Not reported
Owner: Garcia Juarez Contruction
Total Gallons: Not reported
CERSID: 10325266
Facility ID: FA0026982
Business Name: Garcia Juarez Construction Company
Phone: (951) 657-3535
Fax: 951-657-3955
Mailing Address: 4517 Wade Ave
Mailing Address City: Perris
Mailing Address State: CA
Mailing Address Zip Code: 92571
Operator Name: Leon Lopez
Operator Phone: 800-375-7272
Owner Phone: 800-375-7272
Owner Mail Address: 4517 Wade Ave
Owner State: CA
Owner Zip Code: 92571
Owner Country: United States

GARCIA JUAREZ CONSTRUCTION COMPANY (Continued) **A100420256**

Property Owner Name:	Not reported
Property Owner Phone:	Not reported
Property Owner Mailing Address:	Not reported
Property Owner City:	Not reported
Property Owner Stat :	Not reported
Property Owner Zip Code:	Not reported
Property Owner Country:	Not reported
EPAID:	Not reported

A2 **ONSITE KRUSHING CO.** **ABANDONED MINES** **1022837986**
WSW **4517 WADE AVENUE** **N/A**
1/8-1/4 **PERRIS, CA 92822**
0.175 mi.
926 ft. **Site 2 of 6 in cluster A**

Relative:
Higher

Actual:
1510 ft.

ABANDONED MINES:

Mine ID:	0405772
Mine Name:	ONSITE KRUSHING CO.
Mine Address:	4517 WADE AVENUE
City,State,Zip:	PERRIS, CA 92822
Primary SIC Code:	Sand, Industrial NEC
Mine Type:	Surface
Mine Status Description:	Abandoned
Mine Status Date:	2009-01-05 00:00:00
Coal (C) or Metal (M) Mine:	M
Controller ID:	0081253
Controller Name:	Jim Jackson
Operator ID:	0096306
Operator name:	Onsite Krushing Co.
Address of Record Street:	4517 Wade Avenue
Address of Record PO Box:	Not reported
Address of Record City:	Perris
Address of Record State:	CA
Address of Record Zip Code:	92822
Assessment Address Street:	4517 Wade Avenue
Assessment Address PO Box:	Not reported
Assessment Address City:	PERRIS
Assessment Address State:	CA
Assessment Address Zip Code:	92822
Mine Health and Safety Address Street:	Not reported
Mine Health and Safety Address PO Box:	309
Mine Health and Safety Address City:	Brea
Mine Health and Safety Address State:	CA
Mine Health and Safety Address Zip Code:	Not reported
Latitude:	Not reported
Longitude:	Not reported

A3 **GRFCO, INC.** **CERS HAZ WASTE** **S123625840**
WSW **4517 WADE AVE** **CERS TANKS** **N/A**
1/8-1/4 **PERRIS, CA 92571** **HAZNET**
0.175 mi. **CERS**
926 ft. **Site 3 of 6 in cluster A** **HWTS**

Relative:
Higher

Actual:
1510 ft.

CERS HAZ WASTE:
Name: GRFCO, INC.
Address: 4517 WADE AVE
City,State,Zip: PERRIS, CA 92571
Site ID: 118755
CERS ID: 10325266
CERS Description: Hazardous Waste Generator

CERS TANKS:
Name: GRFCO, INC.
Address: 4517 WADE AVE
City,State,Zip: PERRIS, CA 92571
Site ID: 118755
CERS ID: 10325266
CERS Description: Aboveground Petroleum Storage

HAZNET:
Name: GARCIA JUAREZ CONSTRUCTION
Address: 4517 WADE AVE
Address 2: Not reported
City,State,Zip: PERRIS, CA 925717492
Contact: LEON LOPEZ
Telephone: 9516573535
Mailing Name: Not reported
Mailing Address: PO BOX 309

Year: 2011
Gepaid: CAL000326869
TSD EPA ID: CAD097030993
CA Waste Code: 352 - Other organic solids
Disposal Method: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.125

Year: 2009
Gepaid: CAL000326869
TSD EPA ID: CAT000646117
CA Waste Code: 491 - Unspecified sludge waste
Disposal Method: H132 - Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons: 0.417

Year: 2009
Gepaid: CAL000326869
TSD EPA ID: CAD982444481
CA Waste Code: 352 - Other organic solids
Disposal Method: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.4

Year: 2008
Gepaid: CAL000326869

GRFCO, INC. (Continued) **S123625840**

TSD EPA ID:	CAD982444481
CA Waste Code:	352 - Other organic solids
Disposal Method:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	2.4

Additional Info:

Year:	2008
Gen EPA ID:	CAL000326869
Shipment Date:	20081222
Creation Date:	2/17/2009 18:30:19
Receipt Date:	20081222
Manifest ID:	005069727JJK
Trans EPA ID:	CAR000130864
Trans Name:	ALEXIS ENVIROMENTAL COMPANY INC
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD982444481
Trans Name:	FILTER RECYCLING
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	352 - Other organic solids
RCRA Code:	Not reported
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.4
Waste Quantity:	800
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20081015
Creation Date:	12/11/2008 18:30:30
Receipt Date:	20081020
Manifest ID:	005069601JJK
Trans EPA ID:	CAR000130864
Trans Name:	ALEXIS ENVIROMENTAL COMPANY INC
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD982444481
Trans Name:	FILTER RECYCLING
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	352 - Other organic solids
RCRA Code:	Not reported
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.4
Waste Quantity:	800
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported

GRFCO, INC. (Continued) **S123625840**

Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20080922
Creation Date:	11/14/2008 18:30:18
Receipt Date:	20080922
Manifest ID:	005069547JJK
Trans EPA ID:	CAR000130864
Trans Name:	ALEXIS ENVIROMENTAL COMPANY INC
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD982444481
Trans Name:	FILTER RECYCLING
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	352 - Other organic solids
RCRA Code:	Not reported
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.4
Waste Quantity:	800
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20080805
Creation Date:	10/1/2008 18:30:31
Receipt Date:	20080806
Manifest ID:	002575271JJK
Trans EPA ID:	CAR000130864
Trans Name:	ALEXIS ENVIROMENTAL COMPANY INC
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD982444481
Trans Name:	FILTER RECYCLING
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	352 - Other organic solids
RCRA Code:	Not reported
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.4
Waste Quantity:	800
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20080512
Creation Date:	8/4/2008 18:30:22
Receipt Date:	20080512

GRFCO, INC. (Continued) **S123625840**

Manifest ID: 002575134JJK
Trans EPA ID: CAR000130864
Trans Name: ALEXIS ENVIROMENTAL COMPANY INC
Trans 2 EPA ID: Not reported
Trans 2 Name: Not reported
TSDF EPA ID: CAD982444481
Trans Name: FILTER RECYCLING
TSDF Alt EPA ID: Not reported
TSDF Alt Name: Not reported
Waste Code Description: 352 - Other organic solids
RCRA Code: Not reported
Meth Code: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons: 0.4
Waste Quantity: 800
Quantity Unit: P
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Shipment Date: 20080409
Creation Date: 6/9/2008 18:30:18
Receipt Date: 20080414
Manifest ID: 002575054JJK
Trans EPA ID: CAR000130864
Trans Name: ALEXIS ENVIROMENTAL COMPANY INC
Trans 2 EPA ID: Not reported
Trans 2 Name: Not reported
TSDF EPA ID: CAD982444481
Trans Name: FILTER RECYCLING
TSDF Alt EPA ID: Not reported
TSDF Alt Name: Not reported
Waste Code Description: 352 - Other organic solids
RCRA Code: Not reported
Meth Code: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons: 0.4
Waste Quantity: 800
Quantity Unit: P
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Additional Info:
Year: 2009
Gen EPA ID: CAL000326869

Shipment Date: 20090909
Creation Date: 10/20/2009 18:30:23
Receipt Date: 20090916
Manifest ID: 006018601JJK
Trans EPA ID: CAD982413262
Trans Name: EVERGREEN ENVIRONMENTAL SERVICES

GRFCO, INC. (Continued) **S123625840**

Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAT000646117
Trans Name:	CHEMICAL WASTE MANAGEMENT
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	491 - Unspecified sludge waste
RCRA Code:	Not reported
Meth Code:	H132 - Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Quantity Tons:	0.417
Waste Quantity:	100
Quantity Unit:	G
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported
Shipment Date:	20090225
Creation Date:	4/8/2009 18:31:28
Receipt Date:	20090225
Manifest ID:	005069849JJK
Trans EPA ID:	CAR000130864
Trans Name:	ALEXIS ENVIROMENTAL COMPANY INC
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD982444481
Trans Name:	FILTER RECYCLING
TSDF Alt EPA ID:	Not reported
TSDF Alt Name:	Not reported
Waste Code Description:	352 - Other organic solids
RCRA Code:	Not reported
Meth Code:	H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons:	0.4
Waste Quantity:	800
Quantity Unit:	P
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

Additional Info:

Year:	2011
Gen EPA ID:	CAL000326869
Shipment Date:	20110718
Creation Date:	10/1/2011 18:30:25
Receipt Date:	20110720
Manifest ID:	008372665JJK
Trans EPA ID:	CAD982413262
Trans Name:	EVERGREEN ENVIRONMENTAL SERVICES
Trans 2 EPA ID:	Not reported
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD097030993

GRFCO, INC. (Continued) **S123625840**

Trans Name: SIEMENS WATER TECHNOLOGIES
TSDF Alt EPA ID: Not reported
TSDF Alt Name: Not reported
Waste Code Description: 352 - Other organic solids
RCRA Code: Not reported
Meth Code: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons: 0.125
Waste Quantity: 250
Quantity Unit: P
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

CERS:
Name: GRFCO, INC.
Address: 4517 WADE AVE
City,State,Zip: PERRIS, CA 92571
Site ID: 118755
CERS ID: 10325266
CERS Description: Chemical Storage Facilities

Violations:
Site ID: 118755
Site Name: GRFCO, Inc.
Violation Date: 01-12-2017
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description: Failure to complete and electronically submit a site map with all required content.
Violation Notes: Returned to compliance on 09/11/2017.
Violation Division: Riverside County Department of Env Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 118755
Site Name: GRFCO, Inc.
Violation Date: 07-30-2020
Citation: 22 CCR 15 66265.31 - California Code of Regulations, Title 22, Chapter 15, Section(s) 66265.31
Violation Description: Failure to maintain and operate the facility to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment.
Violation Notes: Returned to compliance on 11/05/2020.
Violation Division: Riverside County Department of Env Health
Violation Program: HW
Violation Source: CERS

Site ID: 118755
Site Name: GRFCO, Inc.
Violation Date: 07-30-2020
Citation: 22 CCR 15 66265.174 - California Code of Regulations, Title 22, Chapter 15, Section(s) 66265.174

GRFCO, INC. (Continued) **S123625840**

Violation Description: Failure to inspect weekly, areas where hazardous waste containers are stored or transferred. The owner or operator shall look for leaking containers and for deterioration of containers and the containment system caused by corrosion or other factors.
Violation Notes: Returned to compliance on 11/05/2020.
Violation Division: Riverside County Department of Env Health
Violation Program: HW
Violation Source: CERS

Site ID: 118755
Site Name: GRFCO, Inc.
Violation Date: 01-12-2017
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description: Failure to complete and electronically submit hazardous material inventory information for all reportable hazardous materials on site at or above reportable quantities.
Violation Notes: Returned to compliance on 09/11/2017.
Violation Division: Riverside County Department of Env Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 118755
Site Name: GRFCO, Inc.
Violation Date: 07-30-2020
Citation: 22 CCR 12 66262.34(f) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(f)
Violation Description: Failure to properly label hazardous waste accumulation containers and portable tanks with the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date.
Violation Notes: Returned to compliance on 11/05/2020.
Violation Division: Riverside County Department of Env Health
Violation Program: HW
Violation Source: CERS

Site ID: 118755
Site Name: GRFCO, Inc.
Violation Date: 01-12-2017
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description: Failure to complete and electronically submit a business plan when storing/handling a hazardous material at or above reportable quantities.
Violation Notes: Returned to compliance on 09/11/2017.
Violation Division: Riverside County Department of Env Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 118755
Site Name: GRFCO, Inc.
Violation Date: 07-30-2020
Citation: Un-Specified
Violation Description: Business Plan Program - Administration/Documentation - General Local Ordinance
Violation Notes: Returned to compliance on 11/05/2020. OBSERVATION: Owner/ operator

GRFCO, INC. (Continued) **S123625840**

failed to maintain Safety Data Sheets for each hazardous material stored on site. CORRECTIVE ACTION: Owner/operator shall have Safety Data Sheets as defined in Title 8 CCR, readily accessible or maintained on site for each hazardous material stored/handled at the facility.
Violation Division: Riverside County Department of Env Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 118755
Site Name: GRFCO, Inc.
Violation Date: 08-09-2017
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description: Failure to annually review and electronically certify that the business plan is complete and accurate on or before the annual due date.
Violation Notes: Returned to compliance on 08/21/2017.
Violation Division: Riverside County Department of Env Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 118755
Site Name: GRFCO, Inc.
Violation Date: 07-21-2016
Citation: HSC 6.95 25505(a)(4) - California Health and Safety Code, Chapter 6.95, Section(s) 25505(a)(4)
Violation Description: Failure to provide initial and annual training to all employees in safety procedures in the event of a release or threatened release of a hazardous material or failure to document and maintain training records for a minimum of three years.
Violation Notes: Returned to compliance on 11/05/2020.
Violation Division: Riverside County Department of Env Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 118755
Site Name: GRFCO, Inc.
Violation Date: 07-30-2020
Citation: 22 CCR 15 66265.192(a) - California Code of Regulations, Title 22, Chapter 15, Section(s) 66265.192(a)
Violation Description: Failure to obtain and maintain a written assessment reviewed and certified by an independent, qualified, professional engineer prior to placing the tank system in service. The written assessment shall state that, the new hazardous waste tank system has sufficient structural integrity, is acceptable for the transferring, storing and treating of hazardous waste, and that the tanks and containment system including the foundation, structural support, seams, connections, and pressure controls (if applicable) are suitably designed to meet the regulation.
Violation Notes: Not reported
Violation Division: Riverside County Department of Env Health
Violation Program: HW
Violation Source: CERS

Site ID: 118755
Site Name: GRFCO, Inc.
Violation Date: 07-21-2016

GRFCO, INC. (Continued) **S123625840**

Citation:	Un-Specified
Violation Description:	Business Plan Program - Operations/Maintenance - General Local Ordinance
Violation Notes:	Returned to compliance on 11/05/2020. Compressed gas storage area was observed without proper postings.
Violation Division:	Riverside County Department of Env Health
Violation Program:	HMRRP
Violation Source:	CERS
Site ID:	118755
Site Name:	GRFCO, Inc.
Violation Date:	07-21-2016
Citation:	19 CCR 6.95 25508(a)(1) - California Code of Regulations, Title 19, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description:	Failure to complete and electronically submit the Business Activities Page and/or Business Owner Operator Identification Page.
Violation Notes:	Returned to compliance on 09/11/2017.
Violation Division:	Riverside County Department of Env Health
Violation Program:	HMRRP
Violation Source:	CERS
Site ID:	118755
Site Name:	GRFCO, Inc.
Violation Date:	01-12-2017
Citation:	19 CCR 6.95 25508(a)(1) - California Code of Regulations, Title 19, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description:	Failure to complete and electronically submit the Business Activities Page and/or Business Owner Operator Identification Page.
Violation Notes:	Returned to compliance on 09/11/2017.
Violation Division:	Riverside County Department of Env Health
Violation Program:	HMRRP
Violation Source:	CERS
Site ID:	118755
Site Name:	GRFCO, Inc.
Violation Date:	01-12-2017
Citation:	HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description:	Failure to establish and electronically submit an adequate training program in safety procedures in the event of a release or threatened release of a hazardous material.
Violation Notes:	Returned to compliance on 09/11/2017.
Violation Division:	Riverside County Department of Env Health
Violation Program:	HMRRP
Violation Source:	CERS
Site ID:	118755
Site Name:	GRFCO, Inc.
Violation Date:	07-30-2020
Citation:	22 CCR 12 66262.40(a) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.40(a)
Violation Description:	Failure to keep a copy of each properly signed manifest for at least three years from the date the waste was accepted by the initial transporter. The manifest signed at the time the waste was accepted for transport shall be kept until receiving a signed copy from the designated facility which received the waste.
Violation Notes:	Returned to compliance on 11/05/2020.

GRFCO, INC. (Continued) **S123625840**

Violation Division: Riverside County Department of Env Health
Violation Program: HW
Violation Source: CERS

Site ID: 118755
Site Name: GRFCO, Inc.
Violation Date: 07-21-2016
Citation: HSC 6.95 25507 - California Health and Safety Code, Chapter 6.95, Section(s) 25507
Violation Description: Failure to adequately establish and implement a business plan when storing/handling a hazardous material at or above reportable quantities.
Violation Notes: Returned to compliance on 09/11/2017.
Violation Division: Riverside County Department of Env Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 118755
Site Name: GRFCO, Inc.
Violation Date: 07-21-2016
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description: Failure to complete and electronically submit a business plan when storing/handling a hazardous material at or above reportable quantities.
Violation Notes: Returned to compliance on 09/11/2017.
Violation Division: Riverside County Department of Env Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 118755
Site Name: GRFCO, Inc.
Violation Date: 07-21-2016
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description: Failure to complete and electronically submit hazardous material inventory information for all reportable hazardous materials on site at or above reportable quantities.
Violation Notes: Returned to compliance on 09/11/2017.
Violation Division: Riverside County Department of Env Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 118755
Site Name: GRFCO, Inc.
Violation Date: 01-12-2017
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description: Failure to establish and electronically submit an adequate emergency response plan and procedures for a release or threatened release of a hazardous material.
Violation Notes: Returned to compliance on 09/11/2017.
Violation Division: Riverside County Department of Env Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 118755

GRFCO, INC. (Continued) **S123625840**

Site Name:	GRFCO, Inc.
Violation Date:	01-12-2017
Citation:	HSC 6.95 25505(a)(4) - California Health and Safety Code, Chapter 6.95, Section(s) 25505(a)(4)
Violation Description:	Failure to provide initial and annual training to all employees in safety procedures in the event of a release or threatened release of a hazardous material or failure to document and maintain training records for a minimum of three years.
Violation Notes:	Returned to compliance on 11/05/2020.
Violation Division:	Riverside County Department of Env Health
Violation Program:	HMRRP
Violation Source:	CERS
Site ID:	118755
Site Name:	GRFCO, Inc.
Violation Date:	01-12-2017
Citation:	HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description:	Failure to annually review and electronically certify that the business plan is complete and accurate on or before the annual due date.
Violation Notes:	Returned to compliance on 09/11/2017.
Violation Division:	Riverside County Department of Env Health
Violation Program:	HMRRP
Violation Source:	CERS
Site ID:	118755
Site Name:	GRFCO, Inc.
Violation Date:	07-21-2016
Citation:	22 CCR 12 66262.34(f) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(f)
Violation Description:	Failure to properly label hazardous waste accumulation containers and portable tanks with the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date.
Violation Notes:	Returned to compliance on 07/21/2016.
Violation Division:	Riverside County Department of Env Health
Violation Program:	HW
Violation Source:	CERS
Site ID:	118755
Site Name:	GRFCO, Inc.
Violation Date:	07-30-2020
Citation:	Un-Specified
Violation Description:	Business Plan Program - Operations/Maintenance - General Local Ordinance
Violation Notes:	Returned to compliance on 11/05/2020. OBSERVATION: Required NFPA-704 signs were not posted. CORRECTIVE ACTION: Owner/operator shall research chemical safety data sheets and post proper NFPA-704 signs. Signs shall be posted at both entrances to the faciility, and the Diesel tank area, and the compressed gases storage area. Submit photos to this department.
Violation Division:	Riverside County Department of Env Health
Violation Program:	HMRRP
Violation Source:	CERS

GRFCO, INC. (Continued) **S123625840**

Site ID:	118755
Site Name:	GRFCO, Inc.
Violation Date:	07-05-2017
Citation:	HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description:	Failure to annually review and electronically certify that the business plan is complete and accurate on or before the annual due date.
Violation Notes:	Returned to compliance on 09/11/2017.
Violation Division:	Riverside County Department of Env Health
Violation Program:	HMRRP
Violation Source:	CERS

Site ID:	118755
Site Name:	GRFCO, Inc.
Violation Date:	07-30-2020
Citation:	HSC 6.95 25505(a)(4) - California Health and Safety Code, Chapter 6.95, Section(s) 25505(a)(4)
Violation Description:	Failure to provide initial and annual training to all employees in safety procedures in the event of a release or threatened release of a hazardous material or failure to document and maintain training records for a minimum of three years.
Violation Notes:	Returned to compliance on 11/05/2020. OBSERVATION: No training records observed/provided during inspection. CORRECTIVE ACTION: Owner/operator shall provide training to all employees. Documentation shall be retained and be made available for inspection for a minimum period of 3 years from the date of the training. Please provide the syllabus and the sign off, signed and dated by each employee who received the training.
Violation Division:	Riverside County Department of Env Health
Violation Program:	HMRRP
Violation Source:	CERS

Site ID:	118755
Site Name:	GRFCO, Inc.
Violation Date:	07-30-2020
Citation:	22 CCR 15 66265.195(c) - California Code of Regulations, Title 22, Chapter 15, Section(s) 66265.195(c)
Violation Description:	Failure to conduct and document inspections of hazardous waste tank systems each operating day and retain records of those inspections at the facility.
Violation Notes:	Returned to compliance on 11/05/2020.
Violation Division:	Riverside County Department of Env Health
Violation Program:	HW
Violation Source:	CERS

Site ID:	118755
Site Name:	GRFCO, Inc.
Violation Date:	07-21-2016
Citation:	HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description:	Failure to complete and electronically submit a site map with all required content.
Violation Notes:	Returned to compliance on 09/11/2017.
Violation Division:	Riverside County Department of Env Health
Violation Program:	HMRRP
Violation Source:	CERS

GRFCO, INC. (Continued) **S123625840**

Evaluation:

Eval General Type:	Other/Unknown
Eval Date:	01-12-2017
Violations Found:	Yes
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not reported
Eval Division:	Riverside County Department of Env Health
Eval Program:	HMRRP
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	07-21-2016
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Riverside County Department of Env Health
Eval Program:	APSA
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	07-30-2020
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Riverside County Department of Env Health
Eval Program:	HMRRP
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	11-05-2020
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Riverside County Department of Env Health
Eval Program:	APSA
Eval Source:	CERS

Eval General Type:	Other/Unknown
Eval Date:	11-05-2020
Violations Found:	No
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not reported
Eval Division:	Riverside County Department of Env Health
Eval Program:	HMRRP
Eval Source:	CERS

Eval General Type:	Other/Unknown
Eval Date:	07-05-2017
Violations Found:	Yes
Eval Type:	Other, not routine, done by local agency
Eval Notes:	Not reported
Eval Division:	Riverside County Department of Env Health
Eval Program:	HMRRP
Eval Source:	CERS

Eval General Type:	Other/Unknown
Eval Date:	07-29-2013

GRFCO, INC. (Continued) **S123625840**

Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Riverside County Department of Env Health
Eval Program: APSA
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 08-09-2017
Violations Found: Yes
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Riverside County Department of Env Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 11-05-2020
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Riverside County Department of Env Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 01-12-2017
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Notes: Not reported
Eval Division: Riverside County Department of Env Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 07-21-2016
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Riverside County Department of Env Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 07-21-2016
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Riverside County Department of Env Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 07-30-2020
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported

GRFCO, INC. (Continued) **S123625840**

Eval Division: Riverside County Department of Env Health
Eval Program: HW
Eval Source: CERS

Coordinates:
Site ID: 118755
Facility Name: GRFCO, Inc.
Env Int Type Code: HWG
Program ID: 10325266
Coord Name: Not reported
Ref Point Type Desc: Center of a facility or station.
Latitude: 33.854020
Longitude: -117.255050

Affiliation:
Affiliation Type Desc: CUPA District
Entity Name: Riverside Cnty Env Health
Entity Title: Not reported
Affiliation Address: 4065 County Circle Drive, Room 104
Affiliation City: Riverside
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 92503
Affiliation Phone: (951) 358-5055

Affiliation Type Desc: Document Preparer
Entity Name: Penney Paulson
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Operator
Entity Name: George Frost
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: (310) 991-4380

Affiliation Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title: Not reported
Affiliation Address: P O Box 1747
Affiliation City: Brea
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 92822
Affiliation Phone: Not reported

Affiliation Type Desc: Legal Owner

GRFCO, INC. (Continued) **S123625840**

Entity Name: George Frost
Entity Title: Not reported
Affiliation Address: P O Box 1747
Affiliation City: Brea
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 92822
Affiliation Phone: (310) 991-4380

Affiliation Type Desc: Identification Signer
Entity Name: Penney Paulson
Entity Title: Project Manager
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Property Owner
Entity Name: GEORGE FROST
Entity Title: Not reported
Affiliation Address: P O Box 1747
Affiliation City: Brea
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 92822
Affiliation Phone: (951) 657-8887

Affiliation Type Desc: Environmental Contact
Entity Name: Penney Paulson
Entity Title: Not reported
Affiliation Address: P O Box 1747
Affiliation City: Brea
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 92822
Affiliation Phone: Not reported

Affiliation Type Desc: Parent Corporation
Entity Name: GRFCO, INC.
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

HWTS:
Name: GARCIA JUAREZ CONSTRUCTION
Address: 4517 WADE AVE
Address 2: Not reported
City,State,Zip: PERRIS, CA 925717492
EPA ID: CAL000326869
Inactive Date: 06/30/2013

GRFCO, INC. (Continued) **S123625840**

Create Date:	11/19/2007
Last Act Date:	03/26/2014
Mailing Name:	Not reported
Mailing Address:	PO BOX 309
Mailing Address 2:	Not reported
Mailing City,State,Zip:	BREA, CA 928220309
Owner Name:	JIM JACKSON
Owner Address:	PO BOX 309
Owner Address 2:	Not reported
Owner City,State,Zip:	BREA, CA 928220309
Contact Name:	LEON LOPEZ
Contact Address:	4517 WADE AVE
Contact Address 2:	Not reported
City,State,Zip:	PERRIS, CA 925717492

NAICS:

EPA ID:	CAL000326869
Create Date:	2011-07-25 09:22:17.600
NAICS Code:	23492
NAICS Description:	Power and Communication Transmission Line Construction
Issued EPA ID Date:	2007-11-19 14:08:56.47000
Inactive Date:	2013-06-30 00:00:00
Facility Name:	GARCIA JUAREZ CONSTRUCTION
Facility Address:	4517 WADE AVE
Facility Address 2:	Not reported
Facility City:	PERRIS
Facility County:	Not reported
Facility State:	CA
Facility Zip:	925717492

A4 **ONSITE KRUSHING CO.** **US MINES** **1024907004**
WSW **4517 WADE AVENUE** **N/A**
1/8-1/4 **PERRIS, CA 92571**
0.175 mi.
926 ft. **Site 4 of 6 in cluster A**

Relative:
Higher

Actual:
1510 ft.

MINES VIOLATIONS:

Name:	ONSITE KRUSHING CO.
Address:	4517 WADE AVENUE
City,State,Zip:	PERRIS, CA 92571
Facility ID:	Not reported

MINES VIOLATIONS:

Violation Number:	7980658
Mine ID:	0405772
Contractor ID:	Not reported
Date Issued:	02/02/2009
Action Type:	104(a)
Type of Issue:	Citation
S and S:	N
Term Date:	02/09/2009
Title 30 Code of Federal Regulations:	50.30(a)
Proposed Penalty:	100.00
Assessment Amount:	100.00
Paid Penalty Amount:	100.00
Assessment Case Status:	Proposed
Assessment Status:	Closed
Year:	2009

ONSITE KRUSHING CO. (Continued) **1024907004**

Address Type:	MineLocation
PO Box:	Not reported
Address:	4517 WADE AVENUE
City:	PERRIS
State:	CA
Operator:	Onsite Krushing Co.
Zip:	92571
Mine Controller Name:	Jim Jackson
Name:	ONSITE KRUSHING CO.
Ownership Date:	12/08/2008
Mine Status:	Abandoned
Status Date:	01/05/2009
Primary Site Description:	Sand, Industrial NEC
Mine Type:	Surface
State 2:	CA
County:	LOS ANGELES

Violation Number:	7999964
Mine ID:	0405772
Contractor ID:	Not reported
Date Issued:	12/09/2008
Action Type:	104(a)
Type of Issue:	Citation
S and S:	N
Term Date:	12/11/2008
Title 30 Code of Federal Regulations:	56.1000
Proposed Penalty:	100.00
Assessment Amount:	100.00
Paid Penalty Amount:	100.00
Assessment Case Status:	Proposed
Assessment Status:	Closed
Year:	2008
Address Type:	MineLocation
PO Box:	Not reported
Address:	4517 WADE AVENUE
City:	PERRIS
State:	CA
Operator:	Onsite Krushing Co.
Zip:	92571
Mine Controller Name:	Jim Jackson
Name:	ONSITE KRUSHING CO.
Ownership Date:	12/08/2008
Mine Status:	Abandoned
Status Date:	01/05/2009
Primary Site Description:	Sand, Industrial NEC
Mine Type:	Surface
State 2:	CA
County:	LOS ANGELES

Violation Number:	7999965
Mine ID:	0405772
Contractor ID:	Not reported
Date Issued:	12/09/2008
Action Type:	104(a)
Type of Issue:	Citation
S and S:	Y
Term Date:	01/05/2009

ONSITE KRUSHING CO. (Continued) **1024907004**

Title 30 Code of Federal Regulations:	56.9301
Proposed Penalty:	108.00
Assessment Amount:	100.00
Paid Penalty Amount:	100.00
Assessment Case Status:	Proposed
Assessment Status:	Closed
Year:	2008
Address Type:	MineLocation
PO Box:	Not reported
Address:	4517 WADE AVENUE
City:	PERRIS
State:	CA
Operator:	Onsite Krushing Co.
Zip:	92571
Mine Controller Name:	Jim Jackson
Name:	ONSITE KRUSHING CO.
Ownership Date:	12/08/2008
Mine Status:	Abandoned
Status Date:	01/05/2009
Primary Site Description:	Sand, Industrial NEC
Mine Type:	Surface
State 2:	CA
County:	LOS ANGELES

Violation Number:	7999966
Mine ID:	0405772
Contractor ID:	Not reported
Date Issued:	12/09/2008
Action Type:	104(a)
Type of Issue:	Citation
S and S:	Y
Term Date:	01/05/2009
Title 30 Code of Federal Regulations:	56.9301
Proposed Penalty:	243.00
Assessment Amount:	173.00
Paid Penalty Amount:	173.00
Assessment Case Status:	Proposed
Assessment Status:	Closed
Year:	2008
Address Type:	MineLocation
PO Box:	Not reported
Address:	4517 WADE AVENUE
City:	PERRIS
State:	CA
Operator:	Onsite Krushing Co.
Zip:	92571
Mine Controller Name:	Jim Jackson
Name:	ONSITE KRUSHING CO.
Ownership Date:	12/08/2008
Mine Status:	Abandoned
Status Date:	01/05/2009
Primary Site Description:	Sand, Industrial NEC
Mine Type:	Surface
State 2:	CA
County:	LOS ANGELES

Violation Number:	7999967

ONSITE KRUSHING CO. (Continued) **1024907004**

Mine ID:	0405772
Contractor ID:	Not reported
Date Issued:	12/09/2008
Action Type:	104(a)
Type of Issue:	Citation
S and S:	Y
Term Date:	01/05/2009
Title 30 Code of Federal Regulations:	56.14107(a)
Proposed Penalty:	243.00
Assessment Amount:	173.00
Paid Penalty Amount:	173.00
Assessment Case Status:	Proposed
Assessment Status:	Closed
Year:	2008
Address Type:	MineLocation
PO Box:	Not reported
Address:	4517 WADE AVENUE
City:	PERRIS
State:	CA
Operator:	Onsite Krushing Co.
Zip:	92571
Mine Controller Name:	Jim Jackson
Name:	ONSITE KRUSHING CO.
Ownership Date:	12/08/2008
Mine Status:	Abandoned
Status Date:	01/05/2009
Primary Site Description:	Sand, Industrial NEC
Mine Type:	Surface
State 2:	CA
County:	LOS ANGELES

Violation Number:	7999968
Mine ID:	0405772
Contractor ID:	Not reported
Date Issued:	12/09/2008
Action Type:	104(a)
Type of Issue:	Citation
S and S:	Y
Term Date:	01/05/2009
Title 30 Code of Federal Regulations:	56.14107(a)
Proposed Penalty:	243.00
Assessment Amount:	173.00
Paid Penalty Amount:	173.00
Assessment Case Status:	Proposed
Assessment Status:	Closed
Year:	2008
Address Type:	MineLocation
PO Box:	Not reported
Address:	4517 WADE AVENUE
City:	PERRIS
State:	CA
Operator:	Onsite Krushing Co.
Zip:	92571
Mine Controller Name:	Jim Jackson
Name:	ONSITE KRUSHING CO.
Ownership Date:	12/08/2008
Mine Status:	Abandoned

ONSITE KRUSHING CO. (Continued) **1024907004**

Status Date:	01/05/2009
Primary Site Description:	Sand, Industrial NEC
Mine Type:	Surface
State 2:	CA
County:	LOS ANGELES
Violation Number:	7999969
Mine ID:	0405772
Contractor ID:	Not reported
Date Issued:	12/09/2008
Action Type:	104(a)
Type of Issue:	Citation
S and S:	Y
Term Date:	01/05/2009
Title 30 Code of Federal Regulations:	56.14107(a)
Proposed Penalty:	243.00
Assessment Amount:	173.00
Paid Penalty Amount:	173.00
Assessment Case Status:	Proposed
Assessment Status:	Closed
Year:	2008
Address Type:	MineLocation
PO Box:	Not reported
Address:	4517 WADE AVENUE
City:	PERRIS
State:	CA
Operator:	Onsite Krushing Co.
Zip:	92571
Mine Controller Name:	Jim Jackson
Name:	ONSITE KRUSHING CO.
Ownership Date:	12/08/2008
Mine Status:	Abandoned
Status Date:	01/05/2009
Primary Site Description:	Sand, Industrial NEC
Mine Type:	Surface
State 2:	CA
County:	LOS ANGELES
Violation Number:	7999970
Mine ID:	0405772
Contractor ID:	Not reported
Date Issued:	12/09/2008
Action Type:	104(a)
Type of Issue:	Citation
S and S:	Y
Term Date:	01/05/2009
Title 30 Code of Federal Regulations:	56.14107(a)
Proposed Penalty:	243.00
Assessment Amount:	173.00
Paid Penalty Amount:	173.00
Assessment Case Status:	Proposed
Assessment Status:	Closed
Year:	2008
Address Type:	MineLocation
PO Box:	Not reported
Address:	4517 WADE AVENUE
City:	PERRIS

ONSITE KRUSHING CO. (Continued) **1024907004**

State:	CA
Operator:	Onsite Krushing Co.
Zip:	92571
Mine Controller Name:	Jim Jackson
Name:	ONSITE KRUSHING CO.
Ownership Date:	12/08/2008
Mine Status:	Abandoned
Status Date:	01/05/2009
Primary Site Description:	Sand, Industrial NEC
Mine Type:	Surface
State 2:	CA
County:	LOS ANGELES
Violation Number:	7999971
Mine ID:	0405772
Contractor ID:	Not reported
Date Issued:	12/09/2008
Action Type:	104(a)
Type of Issue:	Citation
S and S:	Y
Term Date:	01/05/2009
Title 30 Code of Federal Regulations:	56.14107(a)
Proposed Penalty:	243.00
Assessment Amount:	173.00
Paid Penalty Amount:	173.00
Assessment Case Status:	Proposed
Assessment Status:	Closed
Year:	2008
Address Type:	MineLocation
PO Box:	Not reported
Address:	4517 WADE AVENUE
City:	PERRIS
State:	CA
Operator:	Onsite Krushing Co.
Zip:	92571
Mine Controller Name:	Jim Jackson
Name:	ONSITE KRUSHING CO.
Ownership Date:	12/08/2008
Mine Status:	Abandoned
Status Date:	01/05/2009
Primary Site Description:	Sand, Industrial NEC
Mine Type:	Surface
State 2:	CA
County:	LOS ANGELES
Violation Number:	7999972
Mine ID:	0405772
Contractor ID:	Not reported
Date Issued:	12/09/2008
Action Type:	104(a)
Type of Issue:	Citation
S and S:	Y
Term Date:	01/05/2009
Title 30 Code of Federal Regulations:	56.14107(a)
Proposed Penalty:	243.00
Assessment Amount:	173.00
Paid Penalty Amount:	173.00

ONSITE KRUSHING CO. (Continued) **1024907004**

Assessment Case Status:	Proposed
Assessment Status:	Closed
Year:	2008
Address Type:	MineLocation
PO Box:	Not reported
Address:	4517 WADE AVENUE
City:	PERRIS
State:	CA
Operator:	Onsite Krushing Co.
Zip:	92571
Mine Controller Name:	Jim Jackson
Name:	ONSITE KRUSHING CO.
Ownership Date:	12/08/2008
Mine Status:	Abandoned
Status Date:	01/05/2009
Primary Site Description:	Sand, Industrial NEC
Mine Type:	Surface
State 2:	CA
County:	LOS ANGELES

Violation Number:	7999973
Mine ID:	0405772
Contractor ID:	Not reported
Date Issued:	12/09/2008
Action Type:	104(a)
Type of Issue:	Citation
S and S:	Y
Term Date:	01/05/2009
Title 30 Code of Federal Regulations:	56.14107(a)
Proposed Penalty:	243.00
Assessment Amount:	173.00
Paid Penalty Amount:	173.00
Assessment Case Status:	Proposed
Assessment Status:	Closed
Year:	2008
Address Type:	MineLocation
PO Box:	Not reported
Address:	4517 WADE AVENUE
City:	PERRIS
State:	CA
Operator:	Onsite Krushing Co.
Zip:	92571
Mine Controller Name:	Jim Jackson
Name:	ONSITE KRUSHING CO.
Ownership Date:	12/08/2008
Mine Status:	Abandoned
Status Date:	01/05/2009
Primary Site Description:	Sand, Industrial NEC
Mine Type:	Surface
State 2:	CA
County:	LOS ANGELES

Click this hyperlink while viewing on your computer to access
6 additional US_MINES_VIOLATIONS: record(s) in the EDR Site Report.

A5 **GRFCO INC.** **RCRA NonGen / NLR** **1026489942**
WSW **4517 WADE AVE** **CAL000392216**
1/8-1/4 **PERRIS, CA 92571**
0.175 mi.
926 ft. **Site 5 of 6 in cluster A**

Relative: **Higher**

Actual: **1510 ft.**

RCRA NonGen / NLR:

Date Form Received by Agency:		20131226
Handler Name:	GRFCO INC.	
Handler Address:		4517 WADE AVE
Handler City,State,Zip:		PERRIS, CA 92571
EPA ID:		CAL000392216
Contact Name:		PENNEY PAULSON
Contact Address:		4517 WADE AVE
Contact City,State,Zip:		PERRIS, CA 92571
Contact Telephone:		951-657-8887
Contact Fax:		951-657-0777
Contact Email:		GRFCOINC@GMAIL.COM
Contact Title:		Not reported
EPA Region:		09
Land Type:		Not reported
Federal Waste Generator Description:		Not a generator, verified
Non-Notifier:		Not reported
Biennial Report Cycle:		Not reported
Accessibility:		Not reported
Active Site Indicator:		Not reported
State District Owner:		Not reported
State District:		Not reported
Mailing Address:		PO BOX 1747
Mailing City,State,Zip:		BREA, CA 92822-0000
Owner Name:		GRFCO INC
Owner Type:		Other
Operator Name:		PENNEY PAULSON
Operator Type:		Other
Short-Term Generator Activity:		No
Importer Activity:		No
Mixed Waste Generator:		No
Transporter Activity:		No
Transfer Facility Activity:		No
Recycler Activity with Storage:		No
Small Quantity On-Site Burner Exemption:		No
Smelting Melting and Refining Furnace Exemption:		No
Underground Injection Control:		No
Off-Site Waste Receipt:		No
Universal Waste Indicator:		No
Universal Waste Destination Facility:		No
Federal Universal Waste:		No
Active Site Fed-Reg Treatment Storage and Disposal Facility:		Not reported
Active Site Converter Treatment storage and Disposal Facility:		Not reported
Active Site State-Reg Treatment Storage and Disposal Facility:		Not reported
Active Site State-Reg Handler:		---
Federal Facility Indicator:		Not reported
Hazardous Secondary Material Indicator:		N
Sub-Part K Indicator:		Not reported
Commercial TSD Indicator:		No
Treatment Storage and Disposal Type:		Not reported
2018 GPRA Permit Baseline:		Not on the Baseline
2018 GPRA Renewals Baseline:		Not on the Baseline
Permit Renewals Workload Universe:		Not reported

GRFCO INC. (Continued) **1026489942**

Permit Workload Universe:	Not reported
Permit Progress Universe:	Not reported
Post-Closure Workload Universe:	Not reported
Closure Workload Universe:	Not reported
202 GPRA Corrective Action Baseline:	No
Corrective Action Workload Universe:	No
Subject to Corrective Action Universe:	No
Non-TSDFs Where RCRA CA has Been Imposed Universe:	No
TSDFs Potentially Subject to CA Under 3004 (u)/(v) Universe:	No
TSDFs Only Subject to CA under Discretionary Auth Universe:	No
Corrective Action Priority Ranking:	No NCAPS ranking
Environmental Control Indicator:	No
Institutional Control Indicator:	No
Human Exposure Controls Indicator:	N/A
Groundwater Controls Indicator:	N/A
Operating TSDF Universe:	Not reported
Full Enforcement Universe:	Not reported
Significant Non-Complier Universe:	No
Unaddressed Significant Non-Complier Universe:	No
Addressed Significant Non-Complier Universe:	No
Significant Non-Complier With a Compliance Schedule Universe:	No
Financial Assurance Required:	Not reported
Handler Date of Last Change:	20200814
Recognized Trader-Importer:	No
Recognized Trader-Exporter:	No
Importer of Spent Lead Acid Batteries:	No
Exporter of Spent Lead Acid Batteries:	No
Recycler Activity Without Storage:	No
Manifest Broker:	No
Sub-Part P Indicator:	No

Handler - Owner Operator:

Owner/Operator Indicator:	Owner
Owner/Operator Name:	GRFCO INC
Legal Status:	Other
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	4517 WADE AVE
Owner/Operator City,State,Zip:	PERRIS, CA 92571
Owner/Operator Telephone:	800-375-7272
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Owner/Operator Indicator:	Operator
Owner/Operator Name:	PENNEY PAULSON
Legal Status:	Other
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	4517 WADE AVE
Owner/Operator City,State,Zip:	PERRIS, CA 92571
Owner/Operator Telephone:	951-657-8887
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

GRFCO INC. (Continued) **1026489942**

Historic Generators:
- Receive Date: 20131226
- Handler Name: GRFCO INC.
- Federal Waste Generator Description: Not a generator, verified
- State District Owner: Not reported
- Large Quantity Handler of Universal Waste: No
- Recognized Trader Importer: Not reported
- Recognized Trader Exporter: Not reported
- Spent Lead Acid Battery Importer: Not reported
- Spent Lead Acid Battery Exporter: Not reported
- Current Record: Yes
- Non Storage Recycler Activity: Not reported
- Electronic Manifest Broker: Not reported

List of NAICS Codes and Descriptions:
- NAICS Code: 811111
- NAICS Description: GENERAL AUTOMOTIVE REPAIR

Facility Has Received Notices of Violations:
- Violations: No Violations Found

Evaluation Action Summary:
- Evaluations: No Evaluations Found

A6 **HIGH REACH EQUIPMENT SERVICES** **RCRA NonGen / NLR** **1026722281**
WSW **4461 WADE AVE** **CAL000459341**
1/8-1/4 **PERRIS, CA 92571**
0.177 mi.
933 ft. **Site 6 of 6 in cluster A**

Relative: **Higher**
Actual: **1509 ft.**

RCRA NonGen / NLR:
- Date Form Received by Agency: 20210112
- Handler Name: HIGH REACH EQUIPMENT SERVICES
- Handler Address: 4461 WADE AVE
- Handler City,State,Zip: PERRIS, CA 92571
- EPA ID: CAL000459341
- Contact Name: KENNETH PEREA
- Contact Address: 31295 EMPEROR DR
- Contact City,State,Zip: CANYON LAKE, CA 92587
- Contact Telephone: 714-932-8946
- Contact Fax: Not reported
- Contact Email: KENPEREA@HIGHREACH.US
- Contact Title: Not reported
- EPA Region: 09
- Land Type: Not reported
- Federal Waste Generator Description: Not a generator, verified
- Non-Notifier: Not reported
- Biennial Report Cycle: Not reported
- Accessibility: Not reported
- Active Site Indicator: Not reported
- State District Owner: Not reported
- State District: Not reported
- Mailing Address: 31566 RAILROAD CANYON RD STE 2 #1400
- Mailing City,State,Zip: CANYON LAKE, CA 92587
- Owner Name: KENNETH PEREA

HIGH REACH EQUIPMENT SERVICES (Continued) **1026722281**

Owner Type:	Other
Operator Name:	KENNETH PEREA
Operator Type:	Other
Short-Term Generator Activity:	No
Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility Activity:	No
Recycler Activity with Storage:	No
Small Quantity On-Site Burner Exemption:	No
Smelting Melting and Refining Furnace Exemption:	No
Underground Injection Control:	No
Off-Site Waste Receipt:	No
Universal Waste Indicator:	No
Universal Waste Destination Facility:	No
Federal Universal Waste:	No
Active Site Fed-Reg Treatment Storage and Disposal Facility:	Not reported
Active Site Converter Treatment storage and Disposal Facility:	Not reported
Active Site State-Reg Treatment Storage and Disposal Facility:	Not reported
Active Site State-Reg Handler:	---
Federal Facility Indicator:	Not reported
Hazardous Secondary Material Indicator:	N
Sub-Part K Indicator:	Not reported
Commercial TSD Indicator:	No
Treatment Storage and Disposal Type:	Not reported
2018 GPRA Permit Baseline:	Not on the Baseline
2018 GPRA Renewals Baseline:	Not on the Baseline
Permit Renewals Workload Universe:	Not reported
Permit Workload Universe:	Not reported
Permit Progress Universe:	Not reported
Post-Closure Workload Universe:	Not reported
Closure Workload Universe:	Not reported
202 GPRA Corrective Action Baseline:	No
Corrective Action Workload Universe:	No
Subject to Corrective Action Universe:	No
Non-TSDFs Where RCRA CA has Been Imposed Universe:	No
TSDFs Potentially Subject to CA Under 3004 (u)/(v) Universe:	No
TSDFs Only Subject to CA under Discretionary Auth Universe:	No
Corrective Action Priority Ranking:	No NCAPS ranking
Environmental Control Indicator:	No
Institutional Control Indicator:	No
Human Exposure Controls Indicator:	N/A
Groundwater Controls Indicator:	N/A
Operating TSDF Universe:	Not reported
Full Enforcement Universe:	Not reported
Significant Non-Complier Universe:	No
Unaddressed Significant Non-Complier Universe:	No
Addressed Significant Non-Complier Universe:	No
Significant Non-Complier With a Compliance Schedule Universe:	No
Financial Assurance Required:	Not reported
Handler Date of Last Change:	20210226
Recognized Trader-Importer:	No
Recognized Trader-Exporter:	No
Importer of Spent Lead Acid Batteries:	No
Exporter of Spent Lead Acid Batteries:	No
Recycler Activity Without Storage:	No
Manifest Broker:	No

HIGH REACH EQUIPMENT SERVICES (Continued) **1026722281**

Sub-Part P Indicator: No

Handler - Owner Operator:

Owner/Operator Indicator:	Owner
Owner/Operator Name:	KENNETH PEREA
Legal Status:	Other
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	31295 EMPEROR DR
Owner/Operator City,State,Zip:	CANYON LAKE, CA 92587
Owner/Operator Telephone:	714-932-8946
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Owner/Operator Indicator:	Operator
Owner/Operator Name:	KENNETH PEREA
Legal Status:	Other
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	31295 EMPEROR DR
Owner/Operator City,State,Zip:	CANYON LAKE, CA 92587
Owner/Operator Telephone:	714-932-8946
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Historic Generators:

Receive Date:	20210112
Handler Name:	HIGH REACH EQUIPMENT SERVICES
Federal Waste Generator Description:	Not a generator, verified
State District Owner:	Not reported
Large Quantity Handler of Universal Waste:	No
Recognized Trader Importer:	No
Recognized Trader Exporter:	No
Spent Lead Acid Battery Importer:	No
Spent Lead Acid Battery Exporter:	No
Current Record:	Yes
Non Storage Recycler Activity:	No
Electronic Manifest Broker:	No

List of NAICS Codes and Descriptions:

NAICS Code:	562991
NAICS Description:	SEPTIC TANK AND RELATED SERVICES

Facility Has Received Notices of Violations:

Violations:	No Violations Found

Evaluation Action Summary:

Evaluations:	No Evaluations Found

7
SW
1/8-1/4
0.196 mi.
1036 ft.

NEW CINGULAR WIRELESS PCS LLC
4441 WADE AVE
PERRIS, CA 92571

RCRA NonGen / NLR

1024874102
CAL000442756

Relative:
Higher

Actual:
1509 ft.

RCRA NonGen / NLR:

Date Form Received by Agency:	20190124
Handler Name:	NEW CINGULAR WIRELESS PCS LLC
Handler Address:	4441 WADE AVE
Handler City,State,Zip:	PERRIS, CA 92571
EPA ID:	CAL000442756
Contact Name:	DERONICA LAMB
Contact Address:	308 S AKARD ST 17TH FL
Contact City,State,Zip:	DALLAS, TX 75202
Contact Telephone:	214-741-0464
Contact Fax:	214-464-1424
Contact Email:	DR1429@ATT.COM
Contact Title:	Not reported
EPA Region:	09
Land Type:	Not reported
Federal Waste Generator Description:	Not a generator, verified
Non-Notifier:	Not reported
Biennial Report Cycle:	Not reported
Accessibility:	Not reported
Active Site Indicator:	Handler Activities
State District Owner:	Not reported
State District:	Not reported
Mailing Address:	308 S AKARD ST 17TH FL
Mailing City,State,Zip:	DALLAS, TX 75202
Owner Name:	NEW CINGULAR WIRELESS PCS LLC
Owner Type:	Other
Operator Name:	DERONICA LAMB
Operator Type:	Other
Short-Term Generator Activity:	No
Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility Activity:	No
Recycler Activity with Storage:	No
Small Quantity On-Site Burner Exemption:	No
Smelting Melting and Refining Furnace Exemption:	No
Underground Injection Control:	No
Off-Site Waste Receipt:	No
Universal Waste Indicator:	Yes
Universal Waste Destination Facility:	Yes
Federal Universal Waste:	No
Active Site Fed-Reg Treatment Storage and Disposal Facility:	Not reported
Active Site Converter Treatment storage and Disposal Facility:	Not reported
Active Site State-Reg Treatment Storage and Disposal Facility:	Not reported
Active Site State-Reg Handler:	---
Federal Facility Indicator:	Not reported
Hazardous Secondary Material Indicator:	N
Sub-Part K Indicator:	Not reported
Commercial TSD Indicator:	No
Treatment Storage and Disposal Type:	Not reported
2018 GPRA Permit Baseline:	Not on the Baseline
2018 GPRA Renewals Baseline:	Not on the Baseline
Permit Renewals Workload Universe:	Not reported

NEW CINGULAR WIRELESS PCS LLC (Continued) **1024874102**

Permit Workload Universe:	Not reported
Permit Progress Universe:	Not reported
Post-Closure Workload Universe:	Not reported
Closure Workload Universe:	Not reported
202 GPRA Corrective Action Baseline:	No
Corrective Action Workload Universe:	No
Subject to Corrective Action Universe:	No
Non-TSDFs Where RCRA CA has Been Imposed Universe:	No
TSDFs Potentially Subject to CA Under 3004 (u)/(v) Universe:	No
TSDFs Only Subject to CA under Discretionary Auth Universe:	No
Corrective Action Priority Ranking:	No NCAPS ranking
Environmental Control Indicator:	No
Institutional Control Indicator:	No
Human Exposure Controls Indicator:	N/A
Groundwater Controls Indicator:	N/A
Operating TSDF Universe:	Not reported
Full Enforcement Universe:	Not reported
Significant Non-Complier Universe:	No
Unaddressed Significant Non-Complier Universe:	No
Addressed Significant Non-Complier Universe:	No
Significant Non-Complier With a Compliance Schedule Universe:	No
Financial Assurance Required:	Not reported
Handler Date of Last Change:	20190222
Recognized Trader-Importer:	No
Recognized Trader-Exporter:	No
Importer of Spent Lead Acid Batteries:	No
Exporter of Spent Lead Acid Batteries:	No
Recycler Activity Without Storage:	No
Manifest Broker:	No
Sub-Part P Indicator:	No

Handler - Owner Operator:

Owner/Operator Indicator:	Owner
Owner/Operator Name:	NEW CINGULAR WIRELESS PCS LLC
Legal Status:	Other
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	308 S AKARD ST 17TH FL
Owner/Operator City,State,Zip:	DALLAS, TX 75202
Owner/Operator Telephone:	214-741-0464
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Owner/Operator Indicator:	Operator
Owner/Operator Name:	DERONICA LAMB
Legal Status:	Other
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	308 S AKARD ST 17TH FL
Owner/Operator City,State,Zip:	DALLAS, TX 75202
Owner/Operator Telephone:	214-741-0464
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

NEW CINGULAR WIRELESS PCS LLC (Continued) **1024874102**

Historic Generators:
- Receive Date: 20190124
- Handler Name: NEW CINGULAR WIRELESS PCS LLC
- Federal Waste Generator Description: Not a generator, verified
- State District Owner: Not reported
- Large Quantity Handler of Universal Waste: No
- Recognized Trader Importer: No
- Recognized Trader Exporter: No
- Spent Lead Acid Battery Importer: No
- Spent Lead Acid Battery Exporter: No
- Current Record: Yes
- Non Storage Recycler Activity: Not reported
- Electronic Manifest Broker: Not reported

List of NAICS Codes and Descriptions:
- NAICS Code: 517911
- NAICS Description: TELECOMMUNICATIONS RESELLERS

Facility Has Received Notices of Violations:
- Violations: No Violations Found

Evaluation Action Summary:
- Evaluations: No Evaluations Found

8
WNW
1/8-1/4
0.220 mi.
1159 ft.

WEST TOW INC
4615 WADE AVE
PERRIS, CA 92571

RCRA NonGen / NLR **1026056511**
CAL000452698

Relative: Higher

Actual: 1512 ft.

RCRA NonGen / NLR:
- Date Form Received by Agency: 20200214
- Handler Name: WEST TOW INC
- Handler Address: 4615 WADE AVE
- Handler City,State,Zip: PERRIS, CA 92571
- EPA ID: CAL000452698
- Contact Name: STEVE WESTBERG
- Contact Address: 4615 WADE AVE
- Contact City,State,Zip: PERRIS, CA 92571
- Contact Telephone: 951-760-8114
- Contact Fax: 951-867-4045
- Contact Email: SWESTTOW@GMAIL.COM
- Contact Title: Not reported
- EPA Region: 09
- Land Type: Not reported
- Federal Waste Generator Description: Not a generator, verified
- Non-Notifier: Not reported
- Biennial Report Cycle: Not reported
- Accessibility: Not reported
- Active Site Indicator: Not reported
- State District Owner: Not reported
- State District: Not reported
- Mailing Address: 28134 GLENSIDE CT
- Mailing City,State,Zip: MENIFEE, CA 92584
- Owner Name: WEST TOW INC

WEST TOW INC (Continued) **1026056511**

Owner Type:	Other
Operator Name:	STEVE WESTBERG
Operator Type:	Other
Short-Term Generator Activity:	No
Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility Activity:	No
Recycler Activity with Storage:	No
Small Quantity On-Site Burner Exemption:	No
Smelting Melting and Refining Furnace Exemption:	No
Underground Injection Control:	No
Off-Site Waste Receipt:	No
Universal Waste Indicator:	No
Universal Waste Destination Facility:	No
Federal Universal Waste:	No
Active Site Fed-Reg Treatment Storage and Disposal Facility:	Not reported
Active Site Converter Treatment storage and Disposal Facility:	Not reported
Active Site State-Reg Treatment Storage and Disposal Facility:	Not reported
Active Site State-Reg Handler:	---
Federal Facility Indicator:	Not reported
Hazardous Secondary Material Indicator:	N
Sub-Part K Indicator:	Not reported
Commercial TSD Indicator:	No
Treatment Storage and Disposal Type:	Not reported
2018 GPRA Permit Baseline:	Not on the Baseline
2018 GPRA Renewals Baseline:	Not on the Baseline
Permit Renewals Workload Universe:	Not reported
Permit Workload Universe:	Not reported
Permit Progress Universe:	Not reported
Post-Closure Workload Universe:	Not reported
Closure Workload Universe:	Not reported
202 GPRA Corrective Action Baseline:	No
Corrective Action Workload Universe:	No
Subject to Corrective Action Universe:	No
Non-TSDFs Where RCRA CA has Been Imposed Universe:	No
TSDFs Potentially Subject to CA Under 3004 (u)/(v) Universe:	No
TSDFs Only Subject to CA under Discretionary Auth Universe:	No
Corrective Action Priority Ranking:	No NCAPS ranking
Environmental Control Indicator:	No
Institutional Control Indicator:	No
Human Exposure Controls Indicator:	N/A
Groundwater Controls Indicator:	N/A
Operating TSDF Universe:	Not reported
Full Enforcement Universe:	Not reported
Significant Non-Complier Universe:	No
Unaddressed Significant Non-Complier Universe:	No
Addressed Significant Non-Complier Universe:	No
Significant Non-Complier With a Compliance Schedule Universe:	No
Financial Assurance Required:	Not reported
Handler Date of Last Change:	20200306
Recognized Trader-Importer:	No
Recognized Trader-Exporter:	No
Importer of Spent Lead Acid Batteries:	No
Exporter of Spent Lead Acid Batteries:	No
Recycler Activity Without Storage:	No
Manifest Broker:	No

WEST TOW INC (Continued) **1026056511**

Sub-Part P Indicator: No

Handler - Owner Operator:
Owner/Operator Indicator: Owner
Owner/Operator Name: WEST TOW INC
Legal Status: Other
Date Became Current: Not reported
Date Ended Current: Not reported
Owner/Operator Address: 28134 GLENSIDE CT
Owner/Operator City,State,Zip: MENIFEE, CA 92584
Owner/Operator Telephone: 951-445-7172
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Operator
Owner/Operator Name: STEVE WESTBERG
Legal Status: Other
Date Became Current: Not reported
Date Ended Current: Not reported
Owner/Operator Address: 4615 WADE AVE
Owner/Operator City,State,Zip: PERRIS, CA 92571
Owner/Operator Telephone: 951-760-8114
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Historic Generators:
Receive Date: 20200214
Handler Name: WEST TOW INC
Federal Waste Generator Description: Not a generator, verified
State District Owner: Not reported
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: Yes
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

List of NAICS Codes and Descriptions:
NAICS Code: 811198
NAICS Description: ALL OTHER AUTOMOTIVE REPAIR AND MAINTENANCE

Facility Has Received Notices of Violations:
Violations: No Violations Found

Evaluation Action Summary:
Evaluations: No Evaluations Found

9
North
1/8-1/4
0.245 mi.
1296 ft.

INLAND PLASTERING
1153 W OLEANDER AVE
PERRIS, CA 92571

UST **U003782738**
N/A

Relative:
Lower

Actual:
1492 ft.

UST:

Name:	INLAND PLASTERING
Address:	1153 W OLEANDER AVE
City,State,Zip:	PERRIS, CA 92571
Facility ID:	410
Permitting Agency:	RIVERSIDE COUNTY
CERSID:	Not reported
Latitude:	33.85901
Longitude:	-117.25138

B10
NNE
1/2-1
0.981 mi.
5178 ft.

MARCH AIR FORCE BASE
MORENO VALLEY, CA 92518
Site 1 of 2 in cluster B

CA BOND EXP. PLAN **S105960470**
N/A

Relative:
Lower

Actual:
1483 ft.

CA BOND EXP. PLAN:

Reponsible Party:	FEDERAL FACILITY SITE CLEANUP WORKPLAN
Project Revenue Source Company:	Not reported
Project Revenue Source Addr:	Not reported
Project Revenue Source City,St,Zip:	Not reported
Project Revenue Source Desc:	The Department will either enter into an interagency agreement with the Department of Defense of issue an order for oversight/monitoring of the Air Force's cleanup efforts. DHS has budgeted $100,000 for its oversight/monitoring costs. DHS will recover 100 percent of direct costs plus staff costs and overhead related to the project. The Department of Defense will pay all costs associated with remedial investigation and cleanup activities.
Site Description:	The site is a U.S. Air Force Base.
Hazardous Waste Desc:	The initial assessment at this site identified hazardous waste disposal on base in landfills, burning pits, dry wells, and ground disposal. Several types of wastes associated with aircraft and general maintenance were identified, including fuels, oils, polychlorinated biphenyls (PCBs), pesticides, low-level radiation, and the solvents trichloroethylene (TCE) and perchloroethylene (PCE).
Threat To Public Health & Env:	Past disposal practices at March Air Force Base pose a threat to surface and ground water. Work to date has identified ground water contamination on and off base, and recently, in private wells east of the base perimeter. There is no known exposure at this time.
Site Activity Status:	The installation restoration program has been initiated at this base. Currently the program is in the confirmation/quantification step of the mitigation process. DHS's oversight has increased due to contamination of drinking water supplies.

B11
NNE
1/2-1
0.981 mi.
5178 ft.

MARCH AIR RESERVE BASE
3,545 ACRES; EAST OF RIVERSIDE
RIVERSIDE, CA 92518
Site 2 of 2 in cluster B

ENVIROSTOR **S104241831**
HIST Cal-Sites **N/A**

Relative:
Lower

Actual:
1483 ft.

ENVIROSTOR:

Name:	MARCH AIR RESERVE BASE
Address:	3,545 ACRES; EAST OF RIVERSIDE
City,State,Zip:	RIVERSIDE, CA 92518

MARCH AIR RESERVE BASE (Continued) **S104241831**

Facility ID:	33970004
Status:	Active
Status Date:	07/13/1998
Site Code:	400689
Site Type:	Federal Superfund
Site Type Detailed:	Open Base
Acres:	2500
NPL:	YES
Regulatory Agencies:	SMBRP, RWQCB 8 - Santa Ana, US EPA
Lead Agency:	US EPA
Program Manager:	Stephen Niou
Supervisor:	Eileen Mananian
Division Branch:	Cleanup Cypress
Assembly:	61
Senate:	31
Special Program:	DSMOA
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	DERA
Latitude:	33.89608
Longitude:	-117.2552
APN:	NONE SPECIFIED
Past Use:	AIRCRAFT MAINTENANCE, AIRFIELD OPERATIONS, DEGREASING FACILITY, DRY CLEANING, ENGINE TESTING/REPAIR, FIRE TRAINING AREAS, FUEL - AIRCRAFT STORAGE/ REFUELING, FUEL - VEHICLE STORAGE/ REFUELING, LANDFILL - DOMESTIC, MACHINE SHOP, OFFICE BUILDING, OIL/WATER SEPARATORS, PAINT/DEPAINT FACILITY
Potential COC:	Lead Polychlorinated biphenyls (PCBs Polynuclear aromatic hydrocarbons (PAHs Tetrachloroethylene (PCE TPH-diesel TPH-JET FUEL 1,1,1-Trichloroethane (TCA Trichloroethylene (TCE Carbon tetrachloride Chloroform
Confirmed COC:	30013-NO 30018-NO Polynuclear aromatic hydrocarbons (PAHs Tetrachloroethylene (PCE TPH-diesel 1,1,1-Trichloroethane (TCA Trichloroethylene (TCE Chloroform Carbon tetrachloride TPH-JET FUEL
Potential Description:	OTH, SOIL
Alias Name:	ALESSANDRO ARMY AIR FIELD
Alias Type:	Alternate Name
Alias Name:	|
Alias Type:	Alternate Name
Alias Name:	110033608665
Alias Type:	EPA (FRS #)
Alias Name:	DOD100285300
Alias Type:	GeoTracker Global ID
Alias Name:	T10000005654
Alias Type:	GeoTracker Global ID
Alias Name:	T10000005916
Alias Type:	GeoTracker Global ID
Alias Name:	16985
Alias Type:	RB-PCA
Alias Name:	400689
Alias Type:	Project Code (Site Code)
Alias Name:	33970004
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Federal Facility Agreement

MARCH AIR RESERVE BASE (Continued) **S104241831**

Completed Date: 06/28/2017
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 08/16/2017
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: PANER
Completed Document Type: Operation and Maintenance Report
Completed Date: 06/17/1996
Comments: O&M Site 33(PANERO): The Site 33 Pump and Treat System (PTS) consists of flow equalization tanks, an oil-water separator, air stripping, thermal oxidation of air stripper off-gas, and granular activated carbon polishing of the air stripper effluent. An internal combustion engine is used to treat vapors recovered by vapor extraction of the pumping wells. The PTS is designed to sustain continuous operation without direct operator control. Periodic surveillance and maintenance will be required to ensure reliable operation and compliance with regulatory requirements. Process performing monitoring of the vapor and water treatment systems will be conducted. This includes on-site sampling and tests of the influent streams, intermittent treatment points and the effluent streams to verify satisfactory operation, and timely change-out of the GAC treatment units to maintain regulatory discharge limits and cost effectiveness. Preventive equipment maintenance tasks, in accordance with the manufacturers recommend -ations, will be performed along with routine maintenance and record keeping activities. Normally, one field technician will be required to perform the routine O&M tasks, including well inspections and maintenance, pump overhauls, process instrument calibrations, equipment repairs and replacements. The manufacturer shall have local service representatives capable of responding to equipment failures or problems within 3 hours of initial contact.

Completed Area Name: OU 1
Completed Sub Area Name: SIT31
Completed Document Type: Operation and Maintenance Plan
Completed Date: 05/08/1996
Comments: Not reported

Completed Area Name: OU 1
Completed Sub Area Name: SIT31
Completed Document Type: * Remedial or Removal Design
Completed Date: 05/08/1996
Comments: DES - SITE 31: This is part of OU #1. The practice of dis- charging solvents on the ground reportedly occurred from about the mid-1950s to the mid-1970s. In addition, floor drains from maintenance shops may have leaked solvents to the subsurface. The primary contaminants of concern at Site 31 are Trichloro- ethylene (PCE), and traces of other chlorinated solvents. The contaminants are contained within the soils and the groundwater and will require remediation to prevent further contamination of the OU#1 groundwater. Extensive studies to identify source locations, determine site characteristics and evaluate cost effective remedial alternatives have been performed. A

MARCH AIR RESERVE BASE (Continued) **S104241831**

dual phase extraction technology coupled with granular activated carbon treatment of extracted groundwater and soil vapor has been selected based on a pilot scale system shown to be a cost- effective method for remediation of this Site. The treatment system shall discharge treated water that will have a daily average concentration of 0.5 ppb TCE or less, and never will exceed a concentration of 5 ppb TCE. Treated groundwater will be reinjected into the aquifer combined with discharge of excess water to the Heacock Storm drain and/or the base sanitary sewer system, as required. Installation of process equipment, surface piping and electrical facilities is planned for the end of April, and startup of the system July 1996. This remedial action complies with the statutory preference for remedies as specified in the Record of Decision (ROD) for OU#1. ' O&M SITE 31: The Site 31 dual phase extraction and treatment system is designed to sustain continuous operation without direct operator control. Periodic surveillance and maintenance will be required to ensure reliable operation and compliance with regulatory requirement. Process performing monitoring of the vapor and water treatment systems will be conducted. This includes on-site sampling and tests of the influent streams, intermittent treatment points and the effluent streams to verify satisfactory operation, and timely change-out of the GAC treat- ment units to maintain regulatory discharge limits and cost effectiveness. Preventive equipment maintenance tasks, in accordance with the manufacturers recommendations, will be performed along with routine maintenance and record keeping activities. It is expected that the carbon change-out frequency will gradually decrease as the soil and groundwater contaminant levels decline with ongoing treatment. Initially the change-outs may occur once every 1-2 months and subsequently may decrease to once or twice a year for the groundwater treatment system. Normally, one field technician will be required to perform the routine O&M tasks, including wells inspections and maintenance, pump overhauls, process instrument calibrations, equipment repairs and replacements. Status reports along with analytical results and discharge records will be prepared and submitted as reqired for satisfactory operating control and regulatory compliance requirements. Qualified supervisory personnel will oversee execution of the O&M tasks to minimize costs, and ensure timely and accurate operating reports.

Completed Area Name: OU2
Completed Sub Area Name: SIT11
Completed Document Type: Removal Action Completion Report
Completed Date: 05/01/1996
Comments: RA - SITE 11: Site 11 is part of OU#2. It includes an area designated as the Liquid Fuels Management, Bulk Storage Facility. The leaking fuel line section was between the tank car unloading dock (Fuel Pump Station Building 2202 and Building 2340. These fuel lines transport fuels from the fuel storage tanks tot he flight line to enable refueling of aircraft. Leakage of the fuel line was discovered when March AFB personnel noticed a loss in line pressure during an integrity test of a section of the line between the fuel pump station and the flight line. Visual indications of a fuel leak were also observed in and around the concrete valult located adjacent to the fuel pump station. The objective of the Immediate Response Action was to remove and replace the leaking section of the sub-surface JP-8 fuel line. This was accomplished within a very tight schedule

MARCH AIR RESERVE BASE (Continued) **S104241831**

(approx. seven days) to prevent the use of outside trucks for delivery of fuels to the aircrafts. The removal action consisted of trenching to expose the sub-surface fuel lines and associated vault area including the demolishing and removal of overlaying asphalt and concrete, the removal of a 230 foot of JP-8 fuel line and a 210 foot section of an inactive JP-8 line was also removed, the placement of a new 8 inch steel JP-8 fuel line and a 12 inch steel road crossing sleeve and reconstruction of demolished concrete vault. Approximately, 380 cubic yards of contaminated soil was removed and stockpiled at Site 15 for remediation. Upon getting the new pipe section on-line the general site area was landscaped and restored to the original condition to the extent possible. This included the backfilling maximum dry density of the soil, and the replacement of the overlaying asphalt.

Completed Area Name: OU2
Completed Sub Area Name: STE 1
Completed Document Type: Feasibility Study Report
Completed Date: 03/25/1996
Comments: Not reported

Completed Area Name: OU 1
Completed Sub Area Name: STE 9
Completed Document Type: Feasibility Study Report
Completed Date: 03/25/1996
Comments: RIFS - SITE 9: The removal of the OW/S will eliminate a potential source area for groundwater contamination in the future. This Site Specific Action Memorandum was prepared to evaluate and identify the most effective remedial alternative to remove the OW/S and dispose of the expected 100 cubic yards of oil contaminated soil. On-base consolidation with Site 6 lined waste cell provides the maximum level of regulatory compliance within the lowest cost level and is compatible with land use. Site 9 is recommended for military reuse under the Joint Power Authority preferred alternative. Site 9 vicinity may potentially have Beechy's Squirrel and Burrowing Owl, but excavation activities will be focused on the OW/S. No potential wetlands are located in Site 9 vicinity. ' RIFS - SITE 1: Soil sampling at Site 1 detected polycyclic aromatic hydrocarfons (PAHs) as contaminant of concerns. Ground- water samples detected metals; however, only manganese was detected above US Environmental Protection Agency Preliminary remediation Goals (PRGs). Soil from Site 1 was excavated during construction of the Air National Guard Alert Facility. Approximately, 3,100 cubic yards of PAH contaminated soil has been stockpiled on-site under plastic sheeting pending disposal. The risk assessment for Site 1 determined that no human health risk was present at the site because the exposure pathway was limited. Now that the soil has been disturbed, the soil stockpiled at Site 1 needs to be removed to preclude further exposure. This Site Specific Action Memorandum was prepared to evaluate and identify the most effective disposal alternative. The site is planned for Air National Guard use and will remain in military use. Site 1 is not a habitat for any endangered species and no perennial wetlands are located in its vicinity.

Completed Area Name: OU 1
Completed Sub Area Name: STE10
Completed Document Type: * Remedial or Removal Design

MARCH AIR RESERVE BASE (Continued) **S104241831**

Completed Date: 02/02/1996
Comments: Not reported

Completed Area Name: OU 1
Completed Sub Area Name: STE15
Completed Document Type: * Remedial or Removal Design
Completed Date: 02/02/1996
Comments: DES - SITE 10: This is part of OU#1. The drainage channel, which was installed prior to 1940, has reportedly received various oils , hydraulic fluids, diesel fuel, jet fuel, waste paints, paint strippers, paint thinners, battery acids and solvents. The drainage channel is concretelined (since the 1960s) up to the eastern boundary of the base where it discharges to the Perris Valley storm drain. The objectives of this remediation of contaminated sediment from Site 10, pursuant to the cleanup criteria set forth in the final OU#1 Record of Decision (ROD). Approximately 15 cubic yards of sediment material will be removed from the concrete-lined channel and transported off-site to Candelaria Environmental for bioremediation. ' DES - SITE 15: This is also part of OU#1. The Fire Training Area (FTA), Site 15, was developed in 1978 and was reportedly constructed by placing an underdrain system and gravel over a clay liner. Firefighting water, solutions of Aqueous Film Forming Form (AFFF) and residual fuel used during training exercises were drained to a formely unlined water holding pond located adjacent to the FTA. Approximately 6000 gallons per year of contaminated JP-4 have been burned in training exercises since the facility was constructed in 1978. The primary contaminants of concern are Benzene, Naphthalene, 2-Methylnaphthalene and Phenanthrene. The remedial actions for Site 15 will require the handling of two streams; the evaporation pond water and soils contaminated with PAHs. Approximately 4,500 gallons of water, from the evaporation pond, will be transferred to a base sewer inlet located one-half mile from Site 15 using a 5,000-gallon vacuum truck supplied by Environmental Dynamic. Approximately 8,950 tons of contaminated soil will be transported off-site to Candelaria Environmental for bioremediation. The objectives of this remedial action were set forth in the final OU# 1 Record of Decision (ROD).

Completed Area Name: OU-3
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Plan
Completed Date: 09/14/1995
Comments: RAP OU#3: This ROD/RAP presents the remedial alternative selected to remediate soil and groundwater that is contaminated with petroleum hydrocarbons and solvent beneath Operable Unit #3 (OU#3). OU#3, which encompasses the former Panero Fueling facility, is located on the aircraft apron, between the flightline shops and the taxiway. The major components of the selected alternative include: 1. Institutional control, including fencing, site use restriction, and deed restriction of groundwater use. 2. Quarterly groundwater monitoring. 3. Continued free product recovery. 4. Soil remediation using soil vapor extracion and bioventing. 5. Groundwater source remediation using surfactant and in-situ bioremediation. 6. Groundwater dissolved plume treatment using groundwater pump and treat (Air Strippers) system. The remedy is estimated to achieve cleanup goals within 30 years. Approximate cost: $22,251,655.00

Completed Area Name: OU 1

MARCH AIR RESERVE BASE (Continued) **S104241831**

Completed Sub Area Name: STE34
Completed Document Type: Removal Action Completion Report
Completed Date: 07/11/1996
Comments: Not reported

Completed Area Name: OU 1
Completed Sub Area Name: STE34
Completed Document Type: Operation and Maintenance Report
Completed Date: 07/11/1996
Comments: O&M - SITE 34: An area near the oil/water separator, which was improperly installed and is adjacent to Site 34, has been identified as a potential source of the mainly hydrocarbon contamination further to the northwest. In March 1994 the AF installed and began the operation of a bioventing treatability study project at Site 34 to determine the effectiveness of bioventing at this site. This study was completed in July 1996 and successfully demonstrated the effectiveness of bioventing for this site. The Operation and Maintenance (O&M) phase will consist of monthly checks of the bioventing system, completion of operation/maintenance/repair manuals and respiration tests every 6 months of operation. In addition, oxygen, carbon dioxide and hydrocarbon concentrations from the vapor monitoring wells will be monitored on a monthly basis. The O&M of the bioventing system will be performed for a duration of one year after installation and start-up. Data collected from the monthly monitoring is evaluated and used as the basis for adjusting the air flow into the subsurface. Preventive equipment maintenance tasks, in accordance with the manufacturers recommendations, will be performed along with routing maintenance and record keeping activities. Status reports will be prepared and submitted as required for satisfactory operating control and regulatory compliance requirements. Qualified supervisory personnel will oversee execution of the O&M tasks to minimize costs, and ensure timely and accurate operating reports. ‘ DES -SITE 34: The design of the bioventing system was included in the treatability study document. A Remedial Action Workplan was submitted in July 1996 that considered bioventing the final remedial alternative at Site 34. This is consistent with the Operable Unit #1 (OU#1) signed Record of Decision (ROD). The primary advantage in using bioventing is the low cost to install, operate, maintain and monitor the system as compared to other remediation technology. The treatability study has demonstrated that the bioventing at Site 34 of the hydrocarbon contamination is cost effective, has minimal environmental impact and will achieve the cleanup standards set in the OU#1 ROD. Bioventing is the process of delivering oxygen by forced air into the soil to stimulate or enhance the natural biodegradation process of petroleum hydrocarbon contaminants within the soil. The existing bioventing system at Site 34 was designed with excess air injection capacity, therefore, it may be possible to tap into this system for use at the adjacent sites. ‘ RA - SITE 34: Soil contaminants detected during the RI/FS conducted at Site 34 include VOCs, SVOCs, Pesticides/PCBs, Oil and Grease, JP-4 and Diesel Fuel. The Air Force (AF) will characterize the newly discovered contamination at Site 34 using a soil gas survey which will provide potential locations for soil borings based on contaminant concentrations. The AF installed and successfully demonstrated the effectiveness of a bioventing system at this Site. The objectives of this remedial action is to determine the extent of the new hydrocarbon contamination at the oil/water separator, to evaluate and select the best approach to biovent the

MARCH AIR RESERVE BASE (Continued) **S104241831**

site, and to monitor that the bioremedial approach is achieving groundwater protection standards as established in the OU#1 Record of Decision (ROD).

Completed Area Name: OU-3
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Plan
Completed Date: 11/13/1996
Comments: RAP - OU#3(SITE 33): This Decision Document (DD), which is equivilant to a Remedial Action Plan (RAP), presents the selected Removal Action upgrade for March Air Reserve Base (MARB) Operable Unit #3 pump and Treat System. This removal action upgrade is selected to increase jet fuel (JP-4) free product recovery rates at OU#3. The State of California, both DTSC and the Santa Ana Regional Water Quality Control Board (RWQCB), signed a Record of Decision (ROD) for OU#3 in September 1995. However, the US Environmental Protection Agency(USEPA) and the Air Force Reserves (AFRs) declined to sign the ROD at the last minute; the USEPA invoking the petroleum exclusion section of CERCLA and the AFRs stating that the preferred alternative in the ROD is too expensive. Therefore, after considerable efforts, all parties agreed to expand and upgrade the existing free product recovery system as an interim remedy for the JP-4 free product beneath OU#3. This action addresses only JP-4 free product and does not address all contamination remaining at the site. the DD went through the RAP requirement of public review and comment.

Completed Area Name: PCAS
Completed Sub Area Name: STE18
Completed Document Type: Removal Action Completion Report
Completed Date: 04/07/1999
Comments: Not reported

Completed Area Name: OU2
Completed Sub Area Name: STE39
Completed Document Type: Removal Action Completion Report
Completed Date: 03/12/1999
Comments: Not reported

Completed Area Name: OU2
Completed Sub Area Name: STE39
Completed Document Type: * Remedial or Removal Design
Completed Date: 02/23/1999
Comments: Not reported

Completed Area Name: OU2
Completed Sub Area Name: STE36
Completed Document Type: Operation and Maintenance Report
Completed Date: 02/07/2000
Comments: Site 36 - OM: A dual phase extraction system, which combines soil vapor extraction with groundwater extraction, is in operation at site 36. This document contains the Operation and Maintenance (O&M) procedures relating to operation and maintenance activities to be conducted at Site 36.

Completed Area Name: OU2
Completed Sub Area Name: STE36
Completed Document Type: Removal Action Completion Report

MARCH AIR RESERVE BASE (Continued) **S104241831**

Completed Date: 05/26/1999
Comments: Not reported

Completed Area Name: PCAS
Completed Sub Area Name: STE18
Completed Document Type: * Remedial or Removal Design
Completed Date: 07/21/1998
Comments: Not reported

Completed Area Name: OU2
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Workplan
Completed Date: 08/26/2005
Comments: Although there are unresolved issues, DTSC agrees the finalization of the work plan and leaves comments on fate and transport of VOCs and on off-base migration of VOC plumes to be discussed/disputed when the RI report becomes available.

Completed Area Name: OU 1
Completed Sub Area Name: EGETS
Completed Document Type: Operation and Maintenance Report
Completed Date: 10/04/2006
Comments: The 1st Quarter 2006 OU1 Process Monitoring report is finalized

Completed Area Name: OU 1
Completed Sub Area Name: EGETS
Completed Document Type: Operation and Maintenance Report
Completed Date: 12/27/2007
Comments: As a secondary document, no comment letter is required.

Completed Area Name: PCAS
Completed Sub Area Name: SITE2
Completed Document Type: Operation and Maintenance Report
Completed Date: 02/05/2007
Comments: routine monitoring report

Completed Area Name: PCAS
Completed Sub Area Name: STE18
Completed Document Type: Operation and Maintenance Report
Completed Date: 02/05/2007
Comments: routine monitoring report

Completed Area Name: PCAS
Completed Sub Area Name: STE27
Completed Document Type: Operation and Maintenance Report
Completed Date: 02/05/2007
Comments: routine monitoring report

Completed Area Name: PCAS
Completed Sub Area Name: STE33
Completed Document Type: Operation and Maintenance Report
Completed Date: 02/05/2007
Comments: Routine monitoring report reviewed by RWQCB

Completed Area Name: OU2
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Plan

MARCH AIR RESERVE BASE (Continued) **S104241831**

Completed Date: 09/29/2005
Comments: DTSC has concurred with the OU2A ROD of March Air Reserve Base. The OU2A ROD addresses Sites 1, 11, 37, and 39. The key provisions of this ROD include institutional controls for Sites 1 and 11 where residual PAHs exist in the soil that are incompatible with unrestricted land use. The Air Force agreed to incorporate institutional control provisions into the base master plan. In case of base closure, the AF will require the purchasers to enter into State land Use Covenants with DTSC as a condition of land transfer. Sites 37 and 39 require no further actions.

Completed Area Name: OU 1
Completed Sub Area Name: STE34
Completed Document Type: * Remedial or Removal Design
Completed Date: 07/11/1996
Comments: Not reported

Completed Area Name: PCAS
Completed Sub Area Name: STE33
Completed Document Type: * Remedial or Removal Design
Completed Date: 07/08/1996
Comments: Not reported

Completed Area Name: OU 1
Completed Sub Area Name: Not reported
Completed Document Type: Application
Completed Date: 10/30/2007
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: 5 Year Review Reports
Completed Date: 09/02/2009
Comments: 5 year review report accepted

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 06/08/2010
Comments: The report may be finalized

Completed Area Name: OU 1
Completed Sub Area Name: EGETS
Completed Document Type: Operations and Maintenance Plan Amendment
Completed Date: 01/06/2011
Comments: DTSC sent a no-comment letter.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 04/19/2011
Comments: Secondary document, no approval required.

Completed Area Name: OU2
Completed Sub Area Name: SITE8
Completed Document Type: Pilot/Treatability Study Report
Completed Date: 03/29/2012

MARCH AIR RESERVE BASE (Continued) **S104241831**

Comments: Data to be used in Sites 8 & 36 FFS

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 05/08/2014
Comments: secondary document for groundwater monitoring data

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fact Sheets
Completed Date: 08/01/2004
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fact Sheets
Completed Date: 08/01/2003
Comments: Not reported

Completed Area Name: OU 1
Completed Sub Area Name: Not reported
Completed Document Type: Record of Decision w/ESD
Completed Date: 01/29/2014
Comments: The remedy for site soil has been changed to excavation and disposal

Completed Area Name: OU 1
Completed Sub Area Name: FT29
Completed Document Type: Remedial Investigation Report
Completed Date: 08/20/2013
Comments: Not reported

Completed Area Name: OU 1
Completed Sub Area Name: Not reported
Completed Document Type: Operation and Maintenance Plan
Completed Date: 08/19/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Plan
Completed Date: 08/19/2013
Comments: Not reported

Completed Area Name: * BASEWIDE
Completed Sub Area Name: Not reported
Completed Document Type: Quality Assurance Workplan
Completed Date: 08/08/2013
Comments: Accepted on Aug 8, 2013

Completed Area Name: * BASEWIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operation and Maintenance Report
Completed Date: 07/16/2013
Comments: Not reported

Completed Area Name: * BASEWIDE

MARCH AIR RESERVE BASE (Continued) **S104241831**

Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 12/18/2013
Comments: Not reported

Completed Area Name: OU 5
Completed Sub Area Name: Site 49
Completed Document Type: Monitoring Report
Completed Date: 08/21/2014
Comments: Not reported

Completed Area Name: OU 5
Completed Sub Area Name: Site 49
Completed Document Type: Monitoring Report
Completed Date: 08/05/2015
Comments: Not reported

Completed Area Name: OU 5
Completed Sub Area Name: Site 49
Completed Document Type: Monitoring Report
Completed Date: 04/27/2017
Comments: Not reported

Completed Area Name: OU 5
Completed Sub Area Name: Site 49
Completed Document Type: Record of Decision
Completed Date: 05/30/2019
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction Monitoring Report
Completed Date: 03/12/2014
Comments: Not reported

Completed Area Name: OU 5
Completed Sub Area Name: Site 49
Completed Document Type: Site Characterization Workplan
Completed Date: 01/06/2016
Comments: Not reported

Completed Area Name: OU 1
Completed Sub Area Name: EGETS
Completed Document Type: Operation and Maintenance Report
Completed Date: 06/10/2015
Comments: Not reported

Completed Area Name: OU2
Completed Sub Area Name: SITE8
Completed Document Type: Pilot Study/Treatability Workplan
Completed Date: 11/12/2015
Comments: Not reported

Completed Area Name: OU 5
Completed Sub Area Name: Site 49
Completed Document Type: Remedial Investigation / Feasibility Study
Completed Date: 09/21/2017

MARCH AIR RESERVE BASE (Continued) **S104241831**

Comments: Not reported

Completed Area Name: OU 1
Completed Sub Area Name: SIT31
Completed Document Type: Record of Decision
Completed Date: 05/30/2019
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Record of Decision - Amendment
Completed Date: 06/22/2016
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Assessment Work Plan
Completed Date: 11/10/2016
Comments: Not reported

Completed Area Name: OU 1
Completed Sub Area Name: FT29
Completed Document Type: Remedial Investigation Report
Completed Date: 07/13/2017
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Report
Completed Date: 08/03/2017
Comments: Not reported

Completed Area Name: OU 1
Completed Sub Area Name: EGETS
Completed Document Type: Quality Assurance Workplan
Completed Date: 01/03/2018
Comments: Not reported

Completed Area Name: OU2
Completed Sub Area Name: STE 1
Completed Document Type: Remedial Action Completion Report
Completed Date: 04/24/2018
Comments: Not reported

Completed Area Name: OU 1
Completed Sub Area Name: FT29
Completed Document Type: Remedial Action Completion Report
Completed Date: 04/23/2018
Comments: Not reported

Completed Area Name: OU 5
Completed Sub Area Name: Site 49
Completed Document Type: Proposed Plan
Completed Date: 07/05/2018
Comments: Not reported

Completed Area Name: OU 1

MARCH AIR RESERVE BASE (Continued) **S104241831**

Completed Sub Area Name: STE34
Completed Document Type: Proposed Plan
Completed Date: 06/07/2018
Comments: Not reported

Completed Area Name: * BASEWIDE
Completed Sub Area Name: Not reported
Completed Document Type: 5 Year Review Reports
Completed Date: 11/27/2019
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Characterization Workplan
Completed Date: 02/15/2018
Comments: Not reported

Completed Area Name: OU 5
Completed Sub Area Name: Site 49
Completed Document Type: Removal Action Completion Report
Completed Date: 03/30/2021
Comments: Not reported

Completed Area Name: OU 5
Completed Sub Area Name: Site 49
Completed Document Type: Monitoring Report
Completed Date: 08/05/2020
Comments: Not reported

Completed Area Name: OU 5
Completed Sub Area Name: Site 49
Completed Document Type: Monitoring Plan
Completed Date: 03/30/2021
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 07/12/2006
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
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

Calsite:
Name: March Air Reserve Base
Address: 3,545 ACRES; EAST OF RIVERSIDE
City: RIVERSIDE
Region: GLENDALE
Facility ID: 33970004

MARCH AIR RESERVE BASE (Continued) **S104241831**

Facility Type: OPEN
Type: OPEN MILITARY BASE
Branch: SO
Branch Name: OMF-SOUTHERN CALIF
File Name: Not reported
State Senate District: 07131998
Status: ANNUAL WORKPLAN (AWP) - ACTIVE SITE
Status Name: ANNUAL WORKPLAN - ACTIVE SITE
Lead Agency: ENVIRONMENTAL PROTECTION AGENCY
NPL: Listed
SIC Code: 97
SIC Name: NATIONAL SECURITY/INTERNATIONAL AFFAIRS
Access: Not reported
Cortese: Not reported
Hazardous Ranking Score: Not reported
Date Site Hazard Ranked: Not reported
Groundwater Contamination: Confirmed
Staff Member Responsible for Site: SNIOU
Supervisor Responsible for Site: Not reported
Region Water Control Board: SA
Region Water Control Board Name: SANTA ANA
Lat/Long Direction: Not reported
Lat/Long (dms): 0 0 0 / 0 0 0
Lat/long Method: Not reported
Lat/Long Description: Not reported
State Assembly District Code: 62
State Senate District Code: 32
Facility ID: 33970004
Activity: RAP
Activity Name: REMEDIAL ACTION PLAN / RECORD OF DECISION
AWP Code: OU2
Proposed Budget: 0
AWP Completion Date: 12312004
Revised Due Date: 06302006
Comments Date: Not reported
Est Person-Yrs to complete: 0
Estimated Size: Not reported
Request to Delete Activity: Not reported
Activity Status: AWP
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals): 0
Liquids Treated (Gals): 0
Action Included Capping: Not reported
Well Decommissioned: Not reported
Action Included Fencing: Not reported
Removal Action Certification: Not reported
Activity Comments: Not reported
For Commercial Reuse: 0
For Industrial Reuse: 0
For Residential Reuse: 0
Unknown Type: 0
Facility ID: 33970004
Activity: DES
Activity Name: DESIGN
AWP Code: STE34
Proposed Budget: 0
AWP Completion Date: 07111996

MARCH AIR RESERVE BASE (Continued) **S104241831**

Revised Due Date:	Not reported
Comments Date:	07111996
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	33970004
Activity:	DES
Activity Name:	DESIGN
AWP Code:	STE33
Proposed Budget:	0
AWP Completion Date:	07081996
Revised Due Date:	Not reported
Comments Date:	07081996
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	33970004
Activity:	OM
Activity Name:	OPERATION & MAINTENANCE
AWP Code:	PANER
Proposed Budget:	0
AWP Completion Date:	06171996
Revised Due Date:	Not reported
Comments Date:	06171996
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0

MARCH AIR RESERVE BASE (Continued) **S104241831**

Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	33970004
Activity:	OM
Activity Name:	OPERATION & MAINTENANCE
AWP Code:	SIT31
Proposed Budget:	0
AWP Completion Date:	05081996
Revised Due Date:	Not reported
Comments Date:	05081996
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	33970004
Activity:	DES
Activity Name:	DESIGN
AWP Code:	SIT31
Proposed Budget:	0
AWP Completion Date:	05081996
Revised Due Date:	Not reported
Comments Date:	05081996
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0

MARCH AIR RESERVE BASE (Continued) **S104241831**

Facility ID:	33970004
Activity:	RA
Activity Name:	REMOVAL ACTION
AWP Code:	SIT11
Proposed Budget:	0
AWP Completion Date:	05011996
Revised Due Date:	Not reported
Comments Date:	05011996
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	380
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	N
Activity Comments:	CONTAMINATED SOIL REMOVED AND STOCKPILED AT SITE 15 FOR REMEDIATION
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	33970004
Activity:	RIFS
Activity Name:	REMEDIAL INVESTIGATION / FEASIBILITY STUDY
AWP Code:	STE 1
Proposed Budget:	0
AWP Completion Date:	03251996
Revised Due Date:	Not reported
Comments Date:	03251996
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	33970004
Activity:	RIFS
Activity Name:	REMEDIAL INVESTIGATION / FEASIBILITY STUDY
AWP Code:	STE 9
Proposed Budget:	0
AWP Completion Date:	03251996
Revised Due Date:	Not reported
Comments Date:	03251996
Est Person-Yrs to complete:	0

MARCH AIR RESERVE BASE (Continued) **S104241831**

Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	33970004
Activity:	DES
Activity Name:	DESIGN
AWP Code:	STE10
Proposed Budget:	0
AWP Completion Date:	02021996
Revised Due Date:	Not reported
Comments Date:	02021996
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	33970004
Activity:	DES
Activity Name:	DESIGN
AWP Code:	STE15
Proposed Budget:	0
AWP Completion Date:	02021996
Revised Due Date:	Not reported
Comments Date:	02021996
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported

MARCH AIR RESERVE BASE (Continued) **S104241831**

Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	33970004
Activity:	RAP
Activity Name:	REMEDIAL ACTION PLAN / RECORD OF DECISION
AWP Code:	OU-3
Proposed Budget:	0
AWP Completion Date:	09141995
Revised Due Date:	Not reported
Comments Date:	09141995
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	33970004
Activity:	RA
Activity Name:	REMOVAL ACTION
AWP Code:	STE34
Proposed Budget:	0
AWP Completion Date:	07111996
Revised Due Date:	Not reported
Comments Date:	07111996
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	33970004
Activity:	OM
Activity Name:	OPERATION & MAINTENANCE

MARCH AIR RESERVE BASE (Continued) **S104241831**

AWP Code:	STE34
Proposed Budget:	0
AWP Completion Date:	07111996
Revised Due Date:	Not reported
Comments Date:	07111996
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	33970004
Activity:	RAP
Activity Name:	REMEDIAL ACTION PLAN / RECORD OF DECISION
AWP Code:	OU-3
Proposed Budget:	0
AWP Completion Date:	11131996
Revised Due Date:	Not reported
Comments Date:	11131996
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	33970004
Activity:	RA
Activity Name:	REMOVAL ACTION
AWP Code:	SITEB
Proposed Budget:	0
AWP Completion Date:	04102000
Revised Due Date:	Not reported
Comments Date:	04102000
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP

MARCH AIR RESERVE BASE (Continued) **S104241831**

Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	33970004
Activity:	RA
Activity Name:	REMOVAL ACTION
AWP Code:	SITE8
Proposed Budget:	0
AWP Completion Date:	12312006
Revised Due Date:	Not reported
Comments Date:	Not reported
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	33970004
Activity:	RA
Activity Name:	REMOVAL ACTION
AWP Code:	STE18
Proposed Budget:	0
AWP Completion Date:	04071999
Revised Due Date:	Not reported
Comments Date:	04071999
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	N
Activity Comments:	GROUNDWATER LEVELS ARE DEPRESSED TO EXPOSE CONTAMINATED SATURATED SOIL FOR CLEANUP BY COMBINED SOIL VAPOR EXTRACTION, AND SOIL AERATION/BIO-

MARCH AIR RESERVE BASE (Continued) **S104241831**

	VENTING. SVE = 137 SCFM
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	33970004
Activity:	OM
Activity Name:	OPERATION & MAINTENANCE
AWP Code:	SITE8
Proposed Budget:	0
AWP Completion Date:	12312005
Revised Due Date:	06302007
Comments Date:	Not reported
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	33970004
Activity:	RA
Activity Name:	REMOVAL ACTION
AWP Code:	STE39
Proposed Budget:	0
AWP Completion Date:	03121999
Revised Due Date:	Not reported
Comments Date:	03121999
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	3000
Liquids Treated (Gals):	3000
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	N
Activity Comments:	A BIOVENTING (AIR INJECTION) WELL, TWO BIOVENTING MONITORING PROBES, CONVEYANCE PIPING, AN AIR BLOWER, AND MECHANICAL AND ELECTRICAL APPURTENANCES.
For Commercial Reuse:	1
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	33970004
Activity:	DES

MARCH AIR RESERVE BASE (Continued) **S104241831**

Activity Name:	DESIGN
AWP Code:	STE39
Proposed Budget:	0
AWP Completion Date:	02231999
Revised Due Date:	Not reported
Comments Date:	02231999
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	33970004
Activity:	DES
Activity Name:	DESIGN
AWP Code:	SITE8
Proposed Budget:	0
AWP Completion Date:	12312004
Revised Due Date:	12312006
Comments Date:	Not reported
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	33970004
Activity:	OM
Activity Name:	OPERATION & MAINTENANCE
AWP Code:	STE36
Proposed Budget:	0
AWP Completion Date:	02072000
Revised Due Date:	Not reported
Comments Date:	02072000
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported

MARCH AIR RESERVE BASE (Continued) **S104241831**

Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	33970004
Activity:	RA
Activity Name:	REMOVAL ACTION
AWP Code:	STE36
Proposed Budget:	0
AWP Completion Date:	05261999
Revised Due Date:	Not reported
Comments Date:	05261999
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	N
Activity Comments:	INSTALLATION OF A GROUNDWATER EXTRACTION AND TREATMENT SYSTEM IN COMBINATION WITH A SYSTEM FOR SOIL VAPOR EXTRACTION(SVE).
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	33970004
Activity:	DES
Activity Name:	DESIGN
AWP Code:	STE18
Proposed Budget:	0
AWP Completion Date:	07211998
Revised Due Date:	Not reported
Comments Date:	07211998
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported

MARCH AIR RESERVE BASE (Continued) **S104241831**

Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	33970004
Activity:	CERT
Activity Name:	CERTIFICATION
AWP Code:	STE33
Proposed Budget:	0
AWP Completion Date:	12312007
Revised Due Date:	Not reported
Comments Date:	Not reported
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	33970004
Activity:	CERT
Activity Name:	CERTIFICATION
AWP Code:	STE27
Proposed Budget:	0
AWP Completion Date:	12312006
Revised Due Date:	Not reported
Comments Date:	Not reported
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	33970004
Activity:	CERT
Activity Name:	CERTIFICATION
AWP Code:	SITE8

MARCH AIR RESERVE BASE (Continued) **S104241831**

Proposed Budget:	0
AWP Completion Date:	12312006
Revised Due Date:	Not reported
Comments Date:	Not reported
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	33970004
Activity:	CERT
Activity Name:	CERTIFICATION
AWP Code:	SITE2
Proposed Budget:	0
AWP Completion Date:	12312006
Revised Due Date:	Not reported
Comments Date:	Not reported
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	33970004
Activity:	CERT
Activity Name:	CERTIFICATION
AWP Code:	B2307
Proposed Budget:	0
AWP Completion Date:	06302007
Revised Due Date:	Not reported
Comments Date:	Not reported
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE

MARCH AIR RESERVE BASE (Continued) **S104241831**

Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	33970004
Activity:	CERT
Activity Name:	CERTIFICATION
AWP Code:	STE18
Proposed Budget:	0
AWP Completion Date:	12312007
Revised Due Date:	Not reported
Comments Date:	Not reported
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Alternate Address:	2374 ACRES; EAST OF RIVERSIDE
Alternate City,St,Zip:	RIVERSIDE, CA 92518
Alternate Address:	2990 GRAEBER STREET
Alternate City,St,Zip:	MORENO VALLEY, CA 92518
Alternate Address:	3,545 ACRES; EAST OF RIVERSIDE
Alternate City,St,Zip:	RIVERSIDE, CA 92518
Background Info:	This facility is an active U.S. Air Reserve Base part of the the Air Mobility Command (AMC). The Base's mission is to maintain an effective air to air refueling operation capability. Operations at the Base include: maintenance and repair of air- craft, vehicl es and equipment; operation of a photo lab and printing plant; an d fuel management. March AFB has historically generated the follo wing hazardous wastes: petroleum, oil and lubricants (POLs), chlo rinated and nonclorinated solvents, corrosives, antifreeze, paint and paint strippers, carbon removers and photographic chemicals. Past activities which have resulted in contamination at the base include burning waste in fire fighting training exercises and di scharges to sanitary sewers and storm drains. Groundwater has bee n contaminated with trichloroethylene (TCE). Groundwater is the p rimary source of potable water in this area. There is a potential for contamination of soils and surface water. This base was incl uded on the NPL in 1989. A Federal Facilities Agreement (FFA) was

MARCH AIR RESERVE BASE (Continued) **S104241831**

signed between EPA, DHS, the Santa Ana RWQCB and the Air Force i
n September 1990, to provide for the remediation of the Base. The
Base has been divided into three groups, or operable units, whic
h are similar to the State's removal actions, for remediation. Th
ese groups are: 1) ground- water and soil for areas along the eas
t boundary and off base plume, 2) groundwater and soil for areas
not included in units 1 & 3, and 3) groundwater and soil in area
33.

Comments Date: 02021996
Comments: the final OU#1 Record of Decision (ROD). Approximately 15 cubic y
Comments Date: 02021996
Comments: ards of sediment material will be removed from the concrete-lined
Comments Date: 02021996
Comments: channel and transported off-site to Candelaria Environmental for
Comments Date: 02021996
Comments: bioremediation. DES - SITE 15: This is also part of OU#1. The
Comments Date: 07241998
Comments: DES - SITE18: The remediation technology for Site 18 is based
Comments Date: 07241998
Comments: on depressing the groundwater levels to expose contaminated
Comments Date: 07241998
Comments: saturated soils for cleanup by combined soil vapor extraction,
Comments Date: 05011996
Comments: (Fuel Pump Station Building 2202 and Building 2340. These fuel l
Comments Date: 05011996
Comments: ines transport fuels from the fuel storage tanks tot he flight li
Comments Date: 05011996
Comments: ne to enable refueling of aircraft. Leakage of the fuel line was
Comments Date: 06011999
Comments: five extraction wells, 2) Constructing a small concrete pad to
Comments Date: 06011999
Comments: support process equipment. 3) Installing groundwater and vapor
Comments Date: 06011999
Comments: conveyance piping and other necessary equipment to convey soil
Comments Date: 01311996
Comments: RIFS - SITE L: This EE/CA has been prepared to address a removal
Comments Date: 01311996
Comments: action proposed for Site L. The swimming pool was converted to a
Comments Date: 01311996
Comments: waste disposal area for various base wastes including wastes oils
Comments Date: 01311996
Comments: , solvents, asbestos-containing material, and polychlorinated
Comments Date: 01311996
Comments: biphenyls (PCBs). The primary sources of contamination are the
Comments Date: 01311996
Comments: drums, transformers, or other bulk containers which may have been
Comments Date: 01311996
Comments: disposed of into the former swimming pool, the secondary source
Comments Date: 01311996
Comments: of contamination is soil or debris saturated with or containing
Comments Date: 01311996
Comments: high concentrations of contaminants in the immediate areas
Comments Date: 01311996
Comments: surrounding the primary source, and the concrete containment of
Comments Date: 01311996
Comments: the swimming pool area is also considered as a possible secondary
Comments Date: 01311996

MARCH AIR RESERVE BASE (Continued) **S104241831**

Comments:	source. The actual type and quantity of wastes in the pool are
Comments Date:	01311996
Comments:	unknown at this time. If the wastes are not currently adequately
Comments Date:	01311996
Comments:	contained, there is a likelihood that both the subsurface soils
Comments Date:	01311996
Comments:	and/or groundwater may continue to be impacted by the wastes. Due
Comments Date:	01311996
Comments:	to the variety of wastes which may be encountered and the
Comments Date:	01311996
Comments:	differences in treating or disposing of those wastes, a
Comments Date:	01311996
Comments:	combination of alternatives is proposed.
Comments Date:	02021996
Comments:	DES - SITE 10: This is part of OU#1. The drainage channel, which
Comments Date:	02021996
Comments:	was installed prior to 1940, has reportedly received various oils
Comments Date:	02021996
Comments:	, hydraulic fluids, diesel fuel, jet fuel, waste paints, paint s
Comments Date:	02021996
Comments:	trippers, paint thinners, battery acids and solvents. The draina
Comments Date:	02021996
Comments:	ge channel is concretelined (since the 1960s) up to the eastern b
Comments Date:	02021996
Comments:	oundary of the base where it discharges to the Perris Valley stor
Comments Date:	02021996
Comments:	m drain. The objectives of this remediation of contaminated sedi
Comments Date:	02021996
Comments:	ment from Site 10, pursuant to the cleanup criteria set forth in
Comments Date:	02021996
Comments:	Fire Training Area (FTA), Site 15, was developed in 1978 and was
Comments Date:	02021996
Comments:	reportedly constructed by placing an underdrain system and grave
Comments Date:	02021996
Comments:	l over a clay liner. Firefighting water, solutions of Aqueous Fil
Comments Date:	02021996
Comments:	m Forming Form (AFFF) and residual fuel used during training exer
Comments Date:	02021996
Comments:	cises were drained to a formely unlined water holding pond locate
Comments Date:	02021996
Comments:	d adjacent to the FTA. Approximately 6000 gallons per year of co
Comments Date:	02021996
Comments:	ntaminated JP-4 have been burned in training exercises since the
Comments Date:	02021996
Comments:	facility was constructed in 1978. The primary contaminants of co
Comments Date:	02021996
Comments:	ncern are Benzene, Naphthalene, 2-Methylnaphthalene and Phenanthr
Comments Date:	02021996
Comments:	ene. The remedial actions for Site 15 will require the handling
Comments Date:	02021996
Comments:	of two streams; the evaporation pond water and soils contaminated
Comments Date:	02021996
Comments:	with PAHs. Approximately 4,500 gallons of water, from the evapo
Comments Date:	02021996
Comments:	ration pond, will be transferred to a base sewer inlet located on
Comments Date:	02021996
Comments:	e-half mile from Site 15 using a 5,000-gallon vacuum truck suppli

MARCH AIR RESERVE BASE (Continued) **S104241831**

Comments Date:	02021996
Comments:	ed by Environmental Dynamic. Approximately 8,950 tons of contami
Comments Date:	02021996
Comments:	nated soil will be transported off-site to Candelaria Environment
Comments Date:	02021996
Comments:	al for bioremediation. The objectives of this remedial action we
Comments Date:	02021996
Comments:	re set forth in the final OU# 1 Record of Decision (ROD).
Comments Date:	02072000
Comments:	to be conducted at Site 36.
Comments Date:	02072000
Comments:	Site 36 - OM: A dual phase extraction system, which combines soi
Comments Date:	02072000
Comments:	l vapor extraction with groundwater extraction, is in operation a
Comments Date:	02072000
Comments:	t site 36. This document contains the Operation and Maintenance
Comments Date:	02072000
Comments:	(O&M) procedures relating to operation and maintenance activities
Comments Date:	02241999
Comments:	DES - Site 39: The remedial design objective for Site 39 is to
Comments Date:	02241999
Comments:	reduce the contaminant concentrations in the subsurface soil and
Comments Date:	02241999
Comments:	prevent further degradation of groundwater through contaminant
Comments Date:	02241999
Comments:	migration. The remedial system will include the installation of
Comments Date:	02241999
Comments:	a soil bioventing system. The system will be comprised of a
Comments Date:	02241999
Comments:	bioventing (air injection) well, two bioventing monitoring
Comments Date:	02241999
Comments:	proves, conveyance piping, an air blower, and mechanical and
Comments Date:	02241999
Comments:	mechanical and electrical appurtenances. The estimated remedial
Comments Date:	02241999
Comments:	time is 2 years and the volume of soil to be treated is approx.
Comments Date:	02241999
Comments:	3000 cubic yards.
Comments Date:	03251996
Comments:	RIFS - SITE 9: The removal of the OW/S will eliminate a potential
Comments Date:	03251996
Comments:	source area for groundwater contamination in the future. This S
Comments Date:	03251996
Comments:	ite Specific Action Memorandum was prepared to evaluate and ident
Comments Date:	03251996
Comments:	ify the most effective remedial alternative to remove the OW/S an
Comments Date:	03251996
Comments:	d dispose of the expected 100 cubic yards of oil contaminated soi
Comments Date:	03251996
Comments:	l. On-base consolidation with Site 6 lined waste cell provides t
Comments Date:	03251996
Comments:	he maximum level of regulatory compliance within the lowest cost
Comments Date:	03251996
Comments:	level and is compatible with land use. Site 9 is recommended for
Comments Date:	03251996
Comments:	military reuse under the Joint Power Authority preferred alterna
Comments Date:	03251996

MARCH AIR RESERVE BASE (Continued) **S104241831**

Comments:	tive. Site 9 vicinity may potentially have Beechy's Squirrel and
Comments Date:	03251996
Comments:	Burrowing Owl, but excavation activities will be focused on the
Comments Date:	03251996
Comments:	OW/S. No potential wetlands are located in Site 9 vicinity. RIF
Comments Date:	03251996
Comments:	S - SITE 1: Soil sampling at Site 1 detected polycyclic aromatic
Comments Date:	03251996
Comments:	hydrocarfons (PAHs) as contaminant of concerns. Ground- water sam
Comments Date:	03251996
Comments:	ples detected metals; however, only manganese was detected above
Comments Date:	03251996
Comments:	US Environmental Protection Agency Preliminary remediation Goals
Comments Date:	03251996
Comments:	(PRGs). Soil from Site 1 was excavated during construction of th
Comments Date:	03251996
Comments:	e Air National Guard Alert Facility. Approximately, 3,100 cubic y
Comments Date:	03251996
Comments:	ards of PAH contaminated soil has been stockpiled on-site under p
Comments Date:	03251996
Comments:	lastic sheeting pending disposal. The risk assessment for Site 1
Comments Date:	03251996
Comments:	determined that no human health risk was present at the site beca
Comments Date:	03251996
Comments:	use the exposure pathway was limited. Now that the soil has been
Comments Date:	03251996
Comments:	disturbed, the soil stockpiled at Site 1 needs to be removed to p
Comments Date:	03251996
Comments:	reclude further exposure. This Site Specific Action Memorandum w
Comments Date:	03251996
Comments:	as prepared to evaluate and identify the most effective disposal
Comments Date:	03251996
Comments:	alternative. The site is planned for Air National Guard use and w
Comments Date:	03251996
Comments:	ill remain in military use. Site 1 is not a habitat for any enda
Comments Date:	03251996
Comments:	ngered species and no perennial wetlands are located in its vicin
Comments Date:	03251996
Comments:	ity.
Comments Date:	04081999
Comments:	RA - SITE 18: The construction of the remedial action for Site 18
Comments Date:	04081999
Comments:	was completed on February 23, 1999 and the system started on
Comments Date:	04081999
Comments:	Friday 26, 1999. The remediation technology for Site 18 is based
Comments Date:	04081999
Comments:	on depressing the groundwater levels to expose contaminated
Comments Date:	04081999
Comments:	saturated soils for cleanup by combined soil vapor extraction,and
Comments Date:	04081999
Comments:	soil aeration/bioventing, free product removal by vaporization
Comments Date:	04081999
Comments:	and phase separation as necessary, and dissolved through the
Comments Date:	04081999
Comments:	groundwater pump and treat and by natural attenuation/biochemical
Comments Date:	04081999
Comments:	degradation mechanisms. The extracted groundwater is pre-treated

MARCH AIR RESERVE BASE (Continued) **S104241831**

Comments Date:	04081999
Comments:	to remove any free product before transfer by pipline to the Site
Comments Date:	04081999
Comments:	31 treatment facility for treatment by granular activated carbon.
Comments Date:	04081999
Comments:	Any free product is collected via skimmer pump and contained for
Comments Date:	04081999
Comments:	disposal. A soil vapor extraction and treatment system (thermal
Comments Date:	04081999
Comments:	oxidizer) unit was installed at site 18 to treat the recovered
Comments Date:	04081999
Comments:	hydrocarbon vapors locally, before discharging to the atmosphere.
Comments Date:	05011996
Comments:	RA - SITE 11: Site 11 is part of OU#2. It includes an area design
Comments Date:	05011996
Comments:	ated as the Liquid Fuels Management, Bulk Storage Facility. The l
Comments Date:	05011996
Comments:	eaking fuel line section was between the tank car unloading dock
Comments Date:	06011999
Comments:	vapor and groundwater to the treatment pad. 4)Installing process
Comments Date:	06011999
Comments:	equipment for treating contaminated soil vapor and groundwater.
Comments Date:	06011999
Comments:	5) Performing system startup including sampling of vapor and
Comments Date:	06011999
Comments:	groundwater, and system optimization.
Comments Date:	06171996
Comments:	O&M Site 33(PANERO): The Site 33 Pump and Treat System (PTS) cons
Comments Date:	06171996
Comments:	ists of flow equalization tanks, an oil-water separator, air stri
Comments Date:	06171996
Comments:	pping, thermal oxidation of air stripper off-gas, and granular ac
Comments Date:	06171996
Comments:	tivated carbon polishing of the air stripper effluent. An interna
Comments Date:	06171996
Comments:	l combustion engine is used to treat vapors recovered by vapor ex
Comments Date:	06171996
Comments:	traction of the pumping wells. The PTS is designed to sustain co
Comments Date:	06171996
Comments:	ntinuous operation without direct operator control. Periodic surv
Comments Date:	06171996
Comments:	eillance and maintenance will be required to ensure reliable oper
Comments Date:	06171996
Comments:	ation and compliance with regulatory requirements. Process perfor
Comments Date:	06171996
Comments:	ming monitoring of the vapor and water treatment systems will be
Comments Date:	06171996
Comments:	conducted. This includes on-site sampling and tests of the influ
Comments Date:	06171996
Comments:	ent streams, intermittent treatment points and the effluent strea
Comments Date:	06171996
Comments:	ms to verify satisfactory operation, and timely change-out of the
Comments Date:	06171996
Comments:	GAC treatment units to maintain regulatory discharge limits and
Comments Date:	06171996
Comments:	cost effectiveness. Preventive equipment maintenance tasks, in a
Comments Date:	06171996

MARCH AIR RESERVE BASE (Continued) **S104241831**

Comments:	ccordance with the manufacturers recommend -ations, will be perfo
Comments Date:	06171996
Comments:	rmed along with routine maintenance and record keeping activities
Comments Date:	06171996
Comments:	. Normally, one field technician will be required to perform the
Comments Date:	06171996
Comments:	routine O&M tasks, including well inspections and maintenance, p
Comments Date:	06171996
Comments:	ump overhauls, process instrument calibrations, equipment repairs
Comments Date:	06171996
Comments:	and replacements. The manufacturer shall have local service rep
Comments Date:	06171996
Comments:	resentatives capable of responding to equipment failures or probl
Comments Date:	06171996
Comments:	ems within 3 hours of initial contact.
Comments Date:	07111996
Comments:	O&M - SITE 34: An area near the oil/water separator, which was im
Comments Date:	07111996
Comments:	properly installed and is adjacent to Site 34, has been identifie
Comments Date:	07111996
Comments:	d as a potential source of the mainly hydrocarbon contamination f
Comments Date:	07111996
Comments:	urther to the northwest. In March 1994 the AF installed and bega
Comments Date:	07111996
Comments:	n the operation of a bioventing treatability study project at Sit
Comments Date:	07111996
Comments:	e 34 to determine the effectiveness of bioventing at this site.
Comments Date:	07111996
Comments:	This study was completed in July 1996 and successfully demonstrat
Comments Date:	07111996
Comments:	ed the effectiveness of bioventing for this site. The Operation a
Comments Date:	07111996
Comments:	nd Maintenance (O&M) phase will consist of monthly checks of the
Comments Date:	07111996
Comments:	bioventing system, completion of operation/maintenance/repair man
Comments Date:	07111996
Comments:	uals and respiration tests every 6 months of operation. In addit
Comments Date:	07111996
Comments:	ion, oxygen, carbon dioxide and hydrocarbon concentrations from t
Comments Date:	07111996
Comments:	he vapor monitoring wells will be monitored on a monthly basis. T
Comments Date:	07111996
Comments:	he O&M of the bioventing system will be performed for a duration
Comments Date:	07111996
Comments:	of one year after installation and start-up. Data collected from
Comments Date:	07111996
Comments:	the monthly monitoring is evaluated and used as the basis for ad
Comments Date:	07111996
Comments:	justing the air flow into the subsurface. Preventive equipment m
Comments Date:	07111996
Comments:	aintenance tasks, in accordance with the manufacturers recommenda
Comments Date:	07111996
Comments:	tions, will be performed along with routing maintenance and recor
Comments Date:	07111996
Comments:	d keeping activities. Status reports will be prepared and submit
Comments Date:	07111996
Comments:	ted as required for satisfactory operating control and regulatory

MARCH AIR RESERVE BASE (Continued) **S104241831**

Comments Date:	07111996
Comments:	compliance requirements. Qualified supervisory personnel will o
Comments Date:	07111996
Comments:	versee execution of the O&M tasks to minimize costs, and ensure t
Comments Date:	07111996
Comments:	imely and accurate operating reports. DES -SITE 34: The design
Comments Date:	07111996
Comments:	of the bioventing system was included in the treatability study d
Comments Date:	07111996
Comments:	ocument. A Remedial Action Workplan was submitted in July 1996 t
Comments Date:	07111996
Comments:	hat considered bioventing the final remedial alternative at Site
Comments Date:	07111996
Comments:	34. This is consistent with the Operable Unit #1 (OU#1) signed R
Comments Date:	07111996
Comments:	ecord of Decision (ROD). The primary advantage in using bioventi
Comments Date:	07111996
Comments:	ng is the low cost to install, operate, maintain and monitor the
Comments Date:	07111996
Comments:	system as compared to other remediation technology. The treatabi
Comments Date:	07111996
Comments:	lity study has demonstrated that the bioventing at Site 34 of the
Comments Date:	07111996
Comments:	hydrocarbon contamination is cost effective, has minimal environ
Comments Date:	07111996
Comments:	mental impact and will achieve the cleanup standards set in the O
Comments Date:	07111996
Comments:	U#1 ROD. Bioventing is the process of delivering oxygen by force
Comments Date:	07111996
Comments:	d air into the soil to stimulate or enhance the natural biodegrad
Comments Date:	07111996
Comments:	ation process of petroleum hydrocarbon contaminants within the so
Comments Date:	07111996
Comments:	il. The existing bioventing system at Site 34 was designed with
Comments Date:	07111996
Comments:	excess air injection capacity, therefore, it may be possible to t
Comments Date:	07111996
Comments:	ap into this system for use at the adjacent sites. RA - SITE 34
Comments Date:	07111996
Comments:	: Soil contaminants detected during the RI/FS conducted at Site 3
Comments Date:	07111996
Comments:	4 include VOCs, SVOCs, Pesticides/PCBs, Oil and Grease, JP-4 and
Comments Date:	07111996
Comments:	Diesel Fuel. The Air Force (AF) will characterize the newly disc
Comments Date:	07111996
Comments:	overed contamination at Site 34 using a soil gas survey which wil
Comments Date:	07111996
Comments:	l provide potential locations for soil borings based on contamina
Comments Date:	07111996
Comments:	nt concentrations. The AF installed and successfully demonstrated
Comments Date:	07111996
Comments:	the effectiveness of a bioventing system at this Site. The obje
Comments Date:	07111996
Comments:	ctives of this remedial action is to determine the extent of the
Comments Date:	07111996
Comments:	new hydrocarbon contamination at the oil/water separator, to eval
Comments Date:	07111996

MARCH AIR RESERVE BASE (Continued) **S104241831**

Comments:	uate and select the best approach to biovent the site, and to mon
Comments Date:	07111996
Comments:	itor that the bioremedial approach is achieving groundwater prote
Comments Date:	07111996
Comments:	ction standards as established in the OU#1 Record of Decision (RO
Comments Date:	07111996
Comments:	D).
Comments Date:	07241998
Comments:	and soil aeration/bioventing, free product removal by vaporiza-
Comments Date:	07241998
Comments:	tion and phase separation as necessary, and dissolved through the
Comments Date:	07241998
Comments:	groundwater pump and treat and by natural attenuation/biochemical
Comments Date:	07241998
Comments:	degradation mechanisms. The extracted groundwater would be pre-
Comments Date:	07241998
Comments:	treated to remove any free product before transfer by pipeline to
Comments Date:	07241998
Comments:	the Site 31 treatment facility for treatment by granular acti-
Comments Date:	07241998
Comments:	vated carbon. Any free product would be collected via skimmer
Comments Date:	07241998
Comments:	pump and contained for disposal. A soil vapor extraction and
Comments Date:	07241998
Comments:	treatment system(thermal oxidizer) unit will be installed at site
Comments Date:	07241998
Comments:	18 to treat the recovered hydrocarbon vapors locally, before
Comments Date:	07241998
Comments:	discharging to the atmosphere.
Comments Date:	09141995
Comments:	RAP OU#3: This ROD/RAP presents the remedial alternative selected
Comments Date:	09141995
Comments:	to remediate soil and groundwater that is contaminated with petr
Comments Date:	09141995
Comments:	oleum hydrocarbons and solvent beneath Operable Unit #3 (OU#3). O
Comments Date:	09141995
Comments:	U#3, which encompasses the former Panero Fueling facility, is loc
Comments Date:	09141995
Comments:	ated on the aircraft apron, between the flightline shops and the
Comments Date:	09141995
Comments:	taxiway. The major components of the selected alternative include
Comments Date:	09141995
Comments:	: 1. Institutional control, including fencing, site use restri
Comments Date:	09141995
Comments:	ction, and deed restriction of groundwater use. 2. Quarterly grou
Comments Date:	09141995
Comments:	ndwater monitoring. 3. Continued free product recovery. 4. Soil r
Comments Date:	09141995
Comments:	emediation using soil vapor extracion and bioventing. 5. Groundwa
Comments Date:	09141995
Comments:	ter source remediation using surfactant and in-situ bioremediatio
Comments Date:	09141995
Comments:	n. 6. Groundwater dissolved plume treatment using groundwater pum
Comments Date:	09141995
Comments:	p and treat (Air Strippers) system. The remedy is estimated to ac
Comments Date:	09141995
Comments:	hieve cleanup goals within 30 years. Approximate cost: $22,251

MARCH AIR RESERVE BASE (Continued) **S104241831**

Comments Date:	09141995
Comments:	,655.00
Comments Date:	11131996
Comments:	RAP - OU#3(SITE 33): This Decision Document (DD), which is equivi
Comments Date:	11131996
Comments:	lant to a Remedial Action Plan (RAP), presents the selected Remov
Comments Date:	11131996
Comments:	al Action upgrade for March Air Reserve Base (MARB) Operable Unit
Comments Date:	11131996
Comments:	#3 pump and Treat System. This removal action upgrade is select
Comments Date:	11131996
Comments:	ed to increase jet fuel (JP-4) free product recovery rates at OU#
Comments Date:	11131996
Comments:	3. The State of California, both DTSC and the Santa Ana Regional
Comments Date:	11131996
Comments:	Water Quality Control Board (RWQCB), signed a Record of Decision
Comments Date:	11131996
Comments:	(ROD) for OU#3 in September 1995. However, the US Environmental
Comments Date:	11131996
Comments:	Protection Agency(USEPA) and the Air Force Reserves (AFRs) decli
Comments Date:	11131996
Comments:	ned to sign the ROD at the last minute; the USEPA invoking the pe
Comments Date:	11131996
Comments:	troleum exclusion section of CERCLA and the AFRs stating that the
Comments Date:	11131996
Comments:	preferred alternative in the ROD is too expensive. Therefore, a
Comments Date:	11131996
Comments:	fter considerable efforts, all parties agreed to expand and upgra
Comments Date:	11131996
Comments:	de the existing free product recovery system as an interim remedy
Comments Date:	11131996
Comments:	for the JP-4 free product beneath OU#3. This action addresses o
Comments Date:	11131996
Comments:	nly JP-4 free product and does not address all contamination rema
Comments Date:	11131996
Comments:	ining at the site. the DD went through the RAP requirement of pu
Comments Date:	11131996
Comments:	blic review and comment.
Comments Date:	05011996
Comments:	discovered when March AFB personnel noticed a loss in line press
Comments Date:	05011996
Comments:	ure during an integrity test of a section of the line between the
Comments Date:	05011996
Comments:	fuel pump station and the flight line. Visual indications of a
Comments Date:	05011996
Comments:	fuel leak were also observed in and around the concrete valult lo
Comments Date:	05011996
Comments:	cated adjacent to the fuel pump station. The objective of the Imm
Comments Date:	05011996
Comments:	ediate Response Action was to remove and replace the leaking sect
Comments Date:	05011996
Comments:	ion of the sub-surface JP-8 fuel line. This was accomplished with
Comments Date:	05011996
Comments:	in a very tight schedule (approx. seven days) to prevent the use
Comments Date:	05011996
Comments:	of outside trucks for delivery of fuels to the aircrafts. The re
Comments Date:	05011996

MARCH AIR RESERVE BASE (Continued) **S104241831**

Comments:	moval action consisted of trenching to expose the sub-surface fue
Comments Date:	05011996
Comments:	l lines and associated vault area including the demolishing and r
Comments Date:	05011996
Comments:	emoval of overlaying asphalt and concrete, the removal of a 230 f
Comments Date:	05011996
Comments:	oot of JP-8 fuel line and a 210 foot section of an inactive JP-8
Comments Date:	05011996
Comments:	line was also removed, the placement of a new 8 inch steel JP-8 f
Comments Date:	05011996
Comments:	uel line and a 12 inch steel road crossing sleeve and reconstruct
Comments Date:	05011996
Comments:	ion of demolished concrete vault. Approximately, 380 cubic yards
Comments Date:	05011996
Comments:	of contaminated soil was removed and stockpiled at Site 15 for r
Comments Date:	05011996
Comments:	emediation. Upon getting the new pipe section on-line the general
Comments Date:	05011996
Comments:	site area was landscaped and restored to the original condition
Comments Date:	05011996
Comments:	to the extent possible. This included the backfilling maximum dr
Comments Date:	05011996
Comments:	y density of the soil, and the replacement of the overlaying asph
Comments Date:	05011996
Comments:	alt.
Comments Date:	05081996
Comments:	DES - SITE 31: This is part of OU #1. The practice of dis- charg
Comments Date:	05081996
Comments:	ing solvents on the ground reportedly occurred from about the mid
Comments Date:	05081996
Comments:	-1950s to the mid-1970s. In addition, floor drains from maintenan
Comments Date:	05081996
Comments:	ce shops may have leaked solvents to the subsurface. The primary
Comments Date:	05081996
Comments:	contaminants of concern at Site 31 are Trichloro- ethylene (PCE),
Comments Date:	05081996
Comments:	and traces of other chlorinated solvents. The contaminants are
Comments Date:	05081996
Comments:	contained within the soils and the groundwater and will require r
Comments Date:	05081996
Comments:	emediation to prevent further contamination of the OU#1 groundwat
Comments Date:	05081996
Comments:	er. Extensive studies to identify source locations, determine si
Comments Date:	05081996
Comments:	te characteristics and evaluate cost effective remedial alternati
Comments Date:	05081996
Comments:	ves have been performed. A dual phase extraction technology coup
Comments Date:	05081996
Comments:	led with granular activated carbon treatment of extracted groundw
Comments Date:	05081996
Comments:	ater and soil vapor has been selected based on a pilot scale syst
Comments Date:	05081996
Comments:	em shown to be a cost- effective method for remediation of this S
Comments Date:	05081996
Comments:	ite. The treatment system shall discharge treated water that wi
Comments Date:	05081996
Comments:	ll have a daily average concentration of 0.5 ppb TCE or less, and

MARCH AIR RESERVE BASE (Continued) **S104241831**

Comments Date:	05081996
Comments:	never will exceed a concentration of 5 ppb TCE. Treated groundw
Comments Date:	05081996
Comments:	ater will be reinjected into the aquifer combined with discharge
Comments Date:	05081996
Comments:	of excess water to the Heacock Storm drain and/or the base sanita
Comments Date:	05081996
Comments:	ry sewer system, as required. Installation of process equipment,
Comments Date:	05081996
Comments:	surface piping and electrical facilities is planned for the end
Comments Date:	05081996
Comments:	of April, and startup of the system July 1996. This remedial act
Comments Date:	05081996
Comments:	ion complies with the statutory preference for remedies as specif
Comments Date:	05081996
Comments:	ied in the Record of Decision (ROD) for OU#1. O&M SITE 31: The
Comments Date:	05081996
Comments:	Site 31 dual phase extraction and treatment system is designed to
Comments Date:	05081996
Comments:	sustain continuous operation without direct operator control. P
Comments Date:	05081996
Comments:	eriodic surveillance and maintenance will be required to ensure r
Comments Date:	05081996
Comments:	eliable operation and compliance with regulatory requirement. Pr
Comments Date:	05081996
Comments:	ocess performing monitoring of the vapor and water treatment syst
Comments Date:	05081996
Comments:	ems will be conducted. This includes on-site sampling and tests
Comments Date:	05081996
Comments:	of the influent streams, intermittent treatment points and the ef
Comments Date:	05081996
Comments:	fluent streams to verify satisfactory operation, and timely chang
Comments Date:	05081996
Comments:	e-out of the GAC treat- ment units to maintain regulatory dischar
Comments Date:	05081996
Comments:	ge limits and cost effectiveness. Preventive equipment maintenan
Comments Date:	05081996
Comments:	ce tasks, in accordance with the manufacturers recommendations, w
Comments Date:	05081996
Comments:	ill be performed along with routine maintenance and record keepin
Comments Date:	05081996
Comments:	g activities. It is expected that the carbon change-out frequenc
Comments Date:	05081996
Comments:	y will gradually decrease as the soil and groundwater contaminant
Comments Date:	05081996
Comments:	levels decline with ongoing treatment. Initially the change-out
Comments Date:	05081996
Comments:	s may occur once every 1-2 months and subsequently may decrease t
Comments Date:	05081996
Comments:	o once or twice a year for the groundwater treatment system. Norm
Comments Date:	05081996
Comments:	ally, one field technician will be required to perform the routin
Comments Date:	05081996
Comments:	e O&M tasks, including wells inspections and maintenance, pump ov
Comments Date:	05081996
Comments:	erhauls, process instrument calibrations, equipment repairs and r
Comments Date:	05081996

MARCH AIR RESERVE BASE (Continued) **S104241831**

Comments:	eplacements. Status reports along with analytical results and di
Comments Date:	05081996
Comments:	scharge records will be prepared and submitted as reqired for sat
Comments Date:	05081996
Comments:	isfactory operating control and regulatory compliance requirement
Comments Date:	05081996
Comments:	s. Qualified supervisory personnel will oversee execution of the
Comments Date:	05081996
Comments:	O&M tasks to minimize costs, and ensure timely and accurate oper
Comments Date:	05081996
Comments:	ating reports.
Comments Date:	06011999
Comments:	RA - SITE 36: The remedial action for Site 36 was completed on
Comments Date:	06011999
Comments:	March 15, 1999. It included the installation of a groundwater
Comments Date:	06011999
Comments:	extraction and treatment system in combination with a system for
Comments Date:	06011999
Comments:	soil vapor extraction (SVE). A remedial design of this system
Comments Date:	06011999
Comments:	was approved by DTSC on April 7, 1998. The Site 36 system
Comments Date:	06011999
Comments:	includes conveyance piping, process vessels, and electrical and
Comments Date:	06011999
Comments:	mechanical appurtenances. The remedial activities conducted at
Comments Date:	06011999
Comments:	Site 36 included: 1) Installing a submersible pump into each of
ID Name:	Not reported
ID Value:	Not reported
Alternate Name:	ALESSANDRO ARMY AIR FIELD
Alternate Name:	|
Alternate Name:	March Air Reserve Base
Alternate Name:	Not reported
Special Programs Code:	DSMOA
Special Programs Name:	DEFENSE MEMORANDUM OF AGREEMENT

Count: 2 records. ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
MORENO VALLEY	S125638995	FUTURE TRUCK TERMINAL	17205 HEACOCK STREET	92551	CPS-SLIC
PERRIS	S107540243		PATTERSON AVE AND MARKMAN ST,	92570	CDL

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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

Lists of Federal NPL (Superfund) sites

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: 10/20/2021
Date Data Arrived at EDR: 11/05/2021
Date Made Active in Reports: 11/29/2021
Number of Days to Update: 24

Source: EPA
Telephone: N/A
Last EDR Contact: 12/01/2021
Next Scheduled EDR Contact: 01/10/2022
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
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: 10/20/2021
Date Data Arrived at EDR: 11/05/2021
Date Made Active in Reports: 11/29/2021
Number of Days to Update: 24

Source: EPA
Telephone: N/A
Last EDR Contact: 12/01/2021
Next Scheduled EDR Contact: 01/10/2022
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

Lists of Federal Delisted NPL sites

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: 10/20/2021
Date Data Arrived at EDR: 11/05/2021
Date Made Active in Reports: 11/29/2021
Number of Days to Update: 24

Source: EPA
Telephone: N/A
Last EDR Contact: 12/01/2021
Next Scheduled EDR Contact: 01/10/2022
Data Release Frequency: Quarterly

Lists of Federal sites subject to CERCLA removals and CERCLA orders

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: 05/25/2021
Date Data Arrived at EDR: 06/24/2021
Date Made Active in Reports: 09/20/2021
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 10/01/2021
Next Scheduled EDR Contact: 01/10/2022
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: 10/20/2021
Date Data Arrived at EDR: 11/05/2021
Date Made Active in Reports: 11/29/2021
Number of Days to Update: 24

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 12/01/2021
Next Scheduled EDR Contact: 01/24/2022
Data Release Frequency: Quarterly

Lists of Federal CERCLA sites with NFRAP

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: 10/20/2021
Date Data Arrived at EDR: 11/05/2021
Date Made Active in Reports: 11/29/2021
Number of Days to Update: 24

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 12/01/2021
Next Scheduled EDR Contact: 01/24/2022
Data Release Frequency: Quarterly

Lists of Federal RCRA facilities undergoing Corrective Action

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 09/13/2021
Date Data Arrived at EDR: 09/15/2021
Date Made Active in Reports: 10/12/2021
Number of Days to Update: 27

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 09/15/2021
Next Scheduled EDR Contact: 01/03/2022
Data Release Frequency: Quarterly

Lists of Federal RCRA TSD facilities

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: 09/13/2021
Date Data Arrived at EDR: 09/15/2021
Date Made Active in Reports: 10/12/2021
Number of Days to Update: 27

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 09/15/2021
Next Scheduled EDR Contact: 01/03/2022
Data Release Frequency: Quarterly

Lists of Federal RCRA generators

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: 09/13/2021
Date Data Arrived at EDR: 09/15/2021
Date Made Active in Reports: 10/12/2021
Number of Days to Update: 27

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 09/15/2021
Next Scheduled EDR Contact: 01/03/2022
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: 09/13/2021
Date Data Arrived at EDR: 09/15/2021
Date Made Active in Reports: 10/12/2021
Number of Days to Update: 27

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 09/15/2021
Next Scheduled EDR Contact: 01/03/2022
Data Release Frequency: Quarterly

RCRA-VSQG: RCRA - Very Small Quantity Generators (Formerly 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). Very small quantity generators (VSQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 09/13/2021
Date Data Arrived at EDR: 09/15/2021
Date Made Active in Reports: 10/12/2021
Number of Days to Update: 27

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 09/15/2021
Next Scheduled EDR Contact: 01/03/2022
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: 07/12/2021
Date Data Arrived at EDR: 08/06/2021
Date Made Active in Reports: 10/22/2021
Number of Days to Update: 77

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 11/08/2021
Next Scheduled EDR Contact: 02/21/2022
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: 08/23/2021
Date Data Arrived at EDR: 08/23/2021
Date Made Active in Reports: 11/12/2021
Number of Days to Update: 81

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 11/18/2021
Next Scheduled EDR Contact: 03/06/2022
Data Release Frequency: Varies

US INST CONTROLS: Institutional Controls Sites List

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: 08/23/2021
Date Data Arrived at EDR: 08/23/2021
Date Made Active in Reports: 11/12/2021
Number of Days to Update: 81

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 11/19/2021
Next Scheduled EDR Contact: 03/07/2022
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: 06/14/2021
Date Data Arrived at EDR: 06/17/2021
Date Made Active in Reports: 08/17/2021
Number of Days to Update: 61

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 09/21/2021
Next Scheduled EDR Contact: 01/03/2022
Data Release Frequency: Quarterly

Lists of state- and tribal (Superfund) equivalent sites

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: 07/22/2021
Date Data Arrived at EDR: 07/22/2021
Date Made Active in Reports: 10/08/2021
Number of Days to Update: 78

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 10/26/2021
Next Scheduled EDR Contact: 02/07/2022
Data Release Frequency: Quarterly

Lists of state- and tribal hazardous waste facilities

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: 07/22/2021
Date Data Arrived at EDR: 07/22/2021
Date Made Active in Reports: 10/08/2021
Number of Days to Update: 78

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 10/26/2021
Next Scheduled EDR Contact: 02/07/2022
Data Release Frequency: Quarterly

Lists of state and tribal landfills and solid waste disposal facilities

SWF/LF (SWIS): Solid Waste Information System

Active, Closed and Inactive Landfills. SWF/LF records typically contain an inve ntory 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: 08/09/2021
Date Data Arrived at EDR: 08/10/2021
Date Made Active in Reports: 11/05/2021
Number of Days to Update: 87

Source: Department of Resources Recycling and Recovery
Telephone: 916-341-6320
Last EDR Contact: 11/09/2021
Next Scheduled EDR Contact: 02/21/2022
Data Release Frequency: Quarterly

Lists of state and tribal leaking storage tanks

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 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 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 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 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 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: 09/07/2021
Date Data Arrived at EDR: 09/07/2021
Date Made Active in Reports: 11/29/2021
Number of Days to Update: 83
Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 12/07/2021
Next Scheduled EDR Contact: 03/21/2022
Data Release Frequency: Quarterly

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 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 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 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

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 06/01/2021
Date Data Arrived at EDR: 06/11/2021
Date Made Active in Reports: 09/07/2021
Number of Days to Update: 88
Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 11/15/2021
Next Scheduled EDR Contact: 01/31/2022
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: 04/28/2021
Date Data Arrived at EDR: 06/11/2021
Date Made Active in Reports: 09/07/2021
Number of Days to Update: 88
Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 11/15/2021
Next Scheduled EDR Contact: 01/31/2022
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: 05/17/2021
Date Data Arrived at EDR: 06/11/2021
Date Made Active in Reports: 09/07/2021
Number of Days to Update: 88
Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 11/15/2021
Next Scheduled EDR Contact: 01/31/2022
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: 05/27/2021
Date Data Arrived at EDR: 06/11/2021
Date Made Active in Reports: 09/07/2021
Number of Days to Update: 88
Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 11/15/2021
Next Scheduled EDR Contact: 01/31/2022
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: 05/28/2021
Date Data Arrived at EDR: 06/22/2021
Date Made Active in Reports: 09/20/2021
Number of Days to Update: 90
Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 11/15/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Varies

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: 05/27/2021
Date Data Arrived at EDR: 06/11/2021
Date Made Active in Reports: 09/07/2021
Number of Days to Update: 88
Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 11/15/2021
Next Scheduled EDR Contact: 01/31/2022
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: 04/06/2021
Date Data Arrived at EDR: 06/11/2021
Date Made Active in Reports: 09/07/2021
Number of Days to Update: 88
Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 11/15/2021
Next Scheduled EDR Contact: 01/31/2022
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: 04/27/2021
Date Data Arrived at EDR: 06/11/2021
Date Made Active in Reports: 09/07/2021
Number of Days to Update: 88
Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 11/15/2021
Next Scheduled EDR Contact: 01/31/2022
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: 09/07/2021
Date Data Arrived at EDR: 09/07/2021
Date Made Active in Reports: 11/29/2021
Number of Days to Update: 83
Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/07/2021
Next Scheduled EDR Contact: 03/21/2022
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

Lists of state and tribal registered storage tanks

FEMA UST: Underground Storage Tank Listing
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 01/29/2021
Date Data Arrived at EDR: 02/17/2021
Date Made Active in Reports: 03/22/2021
Number of Days to Update: 33
Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 11/01/2021
Next Scheduled EDR Contact: 01/17/2022
Data Release Frequency: Varies

UST: Active UST Facilities
Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 09/07/2021
Date Data Arrived at EDR: 09/07/2021
Date Made Active in Reports: 11/30/2021
Number of Days to Update: 84
Source: SWRCB
Telephone: 916-341-5851
Last EDR Contact: 12/07/2021
Next Scheduled EDR Contact: 03/21/2022
Data Release Frequency: Semi-Annually

MILITARY UST SITES: Military UST Sites (GEOTRACKER)
Military ust sites

Date of Government Version: 09/07/2021
Date Data Arrived at EDR: 09/07/2021
Date Made Active in Reports: 11/29/2021
Number of Days to Update: 83

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/07/2021
Next Scheduled EDR Contact: 03/21/2022
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: 08/18/2021
Date Data Arrived at EDR: 09/08/2021
Date Made Active in Reports: 12/03/2021
Number of Days to Update: 86

Source: State Water Resources Control Board
Telephone: 916-327-7844
Last EDR Contact: 12/07/2021
Next Scheduled EDR Contact: 03/21/2022
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: 12/08/2021
Next Scheduled EDR Contact: 03/28/2022
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: 04/27/2021
Date Data Arrived at EDR: 06/11/2021
Date Made Active in Reports: 09/07/2021
Number of Days to Update: 88

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 11/15/2021
Next Scheduled EDR Contact: 01/31/2022
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: 04/06/2021
Date Data Arrived at EDR: 06/11/2021
Date Made Active in Reports: 09/07/2021
Number of Days to Update: 88

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 11/15/2021
Next Scheduled EDR Contact: 01/31/2022
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: 06/01/2021
Date Data Arrived at EDR: 06/11/2021
Date Made Active in Reports: 09/07/2021
Number of Days to Update: 88

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 11/15/2021
Next Scheduled EDR Contact: 01/31/2022
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: 05/27/2021
Date Data Arrived at EDR: 06/11/2021
Date Made Active in Reports: 09/07/2021
Number of Days to Update: 88

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 11/15/2021
Next Scheduled EDR Contact: 01/31/2022
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: 05/27/2021
Date Data Arrived at EDR: 06/11/2021
Date Made Active in Reports: 09/07/2021
Number of Days to Update: 88

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 11/15/2021
Next Scheduled EDR Contact: 01/31/2022
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: 05/17/2021
Date Data Arrived at EDR: 06/11/2021
Date Made Active in Reports: 09/07/2021
Number of Days to Update: 88

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 11/15/2021
Next Scheduled EDR Contact: 01/31/2022
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: 05/28/2021
Date Data Arrived at EDR: 06/22/2021
Date Made Active in Reports: 09/20/2021
Number of Days to Update: 90

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 11/15/2021
Next Scheduled EDR Contact: 01/31/2022
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: 04/28/2021
Date Data Arrived at EDR: 06/11/2021
Date Made Active in Reports: 09/07/2021
Number of Days to Update: 88

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 11/15/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Varies

Lists of 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: 09/15/2021
Next Scheduled EDR Contact: 01/03/2022
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: 07/22/2021
Date Data Arrived at EDR: 07/22/2021
Date Made Active in Reports: 10/08/2021
Number of Days to Update: 78

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 10/26/2021
Next Scheduled EDR Contact: 02/07/2022
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: 07/08/2021
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

Lists of state and tribal brownfield 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: 09/20/2021
Date Data Arrived at EDR: 09/21/2021
Date Made Active in Reports: 12/08/2021
Number of Days to Update: 78

Source: State Water Resources Control Board
Telephone: 916-323-7905
Last EDR Contact: 09/21/2021
Next Scheduled EDR Contact: 01/03/2022
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: 06/10/2021
Date Data Arrived at EDR: 06/10/2021
Date Made Active in Reports: 08/17/2021
Number of Days to Update: 68

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 12/08/2021
Next Scheduled EDR Contact: 03/28/2022
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: 10/22/2021
Next Scheduled EDR Contact: 02/07/2022
Data Release Frequency: No Update Planned

SWRCY: Recycler Database
A listing of recycling facilities in California.

Date of Government Version: 09/07/2021
Date Data Arrived at EDR: 09/08/2021
Date Made Active in Reports: 11/29/2021
Number of Days to Update: 82

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 12/07/2021
Next Scheduled EDR Contact: 03/21/2022
Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing
A listing of registered waste tire haulers.

Date of Government Version: 09/14/2021
Date Data Arrived at EDR: 11/11/2021
Date Made Active in Reports: 11/23/2021
Number of Days to Update: 12

Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 11/05/2021
Next Scheduled EDR Contact: 02/21/2022
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: 10/22/2021
Next Scheduled EDR Contact: 02/07/2022
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: 10/14/2021
Next Scheduled EDR Contact: 01/31/2022
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: 10/28/2021
Next Scheduled EDR Contact: 02/07/2022
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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: 05/18/2021
Date Data Arrived at EDR: 05/18/2021
Date Made Active in Reports: 08/03/2021
Number of Days to Update: 77

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 11/16/2021
Next Scheduled EDR Contact: 03/07/2022
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: 07/22/2021
Date Data Arrived at EDR: 07/22/2021
Date Made Active in Reports: 10/08/2021
Number of Days to Update: 78

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 10/26/2021
Next Scheduled EDR Contact: 02/07/2022
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: 12/31/2019
Date Data Arrived at EDR: 01/20/2021
Date Made Active in Reports: 04/08/2021
Number of Days to Update: 78

Source: Department of Toxic Substances Control
Telephone: 916-255-6504
Last EDR Contact: 11/11/2021
Next Scheduled EDR Contact: 01/17/2022
Data Release Frequency: Varies

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: 07/15/2021
Date Data Arrived at EDR: 07/15/2021
Date Made Active in Reports: 10/06/2021
Number of Days to Update: 83

Source: CalEPA
Telephone: 916-323-2514
Last EDR Contact: 10/19/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Quarterly

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

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: 05/18/2021
Date Data Arrived at EDR: 05/18/2021
Date Made Active in Reports: 08/03/2021
Number of Days to Update: 77

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 11/16/2021
Next Scheduled EDR Contact: 03/07/2022
Data Release Frequency: Quarterly

AQUEOUS FOAM: Former Fire Training Facility Assessments Listing

Airports shown on this list are those believed to use Aqueous Film Forming Foam (AFFF), and certified by the Federal Aviation Administration (FAA) under Title 14, Code of Federal Regulations (CFR), Part 139 (14 CFR Part 139). This list was created by SWRCB using information available from the FAA. Location points shown are from the latitude and longitude listed on the FAA airport master record.

Date of Government Version: 12/01/2019
Date Data Arrived at EDR: 08/19/2021
Date Made Active in Reports: 10/28/2021
Number of Days to Update: 70

Source: State Water Resources Control Board
Telephone: 916-341-5455
Last EDR Contact: 08/19/2021
Next Scheduled EDR Contact: 12/20/2021
Data Release Frequency: Varies

PFAS: PFAS Contamination Site Location Listing

A listing of PFAS contaminated sites included in the GeoTracker database.

Date of Government Version: 09/07/2021
Date Data Arrived at EDR: 09/08/2021
Date Made Active in Reports: 12/01/2021
Number of Days to Update: 84

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/07/2021
Next Scheduled EDR Contact: 03/21/2022
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

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: 08/05/2021
Date Data Arrived at EDR: 08/05/2021
Date Made Active in Reports: 10/29/2021
Number of Days to Update: 85

Source: San Francisco County Department of Public Health
Telephone: 415-252-3896
Last EDR Contact: 10/31/2021
Next Scheduled EDR Contact: 02/14/2022
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: 07/15/2021
Date Data Arrived at EDR: 07/15/2021
Date Made Active in Reports: 10/06/2021
Number of Days to Update: 83

Source: California Environmental Protection Agency
Telephone: 916-323-2514
Last EDR Contact: 10/19/2021
Next Scheduled EDR Contact: 01/31/2022
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: 08/25/2021
Date Data Arrived at EDR: 09/03/2021
Date Made Active in Reports: 11/22/2021
Number of Days to Update: 80

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 11/22/2021
Next Scheduled EDR Contact: 03/13/2022
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: 10/20/2021
Date Data Arrived at EDR: 11/05/2021
Date Made Active in Reports: 11/29/2021
Number of Days to Update: 24

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 12/01/2021
Next Scheduled EDR Contact: 01/10/2022
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: 08/30/2021
Date Data Arrived at EDR: 08/31/2021
Date Made Active in Reports: 11/19/2021
Number of Days to Update: 80
Source: DTSC and SWRCB
Telephone: 916-323-3400
Last EDR Contact: 11/30/2021
Next Scheduled EDR Contact: 03/14/2022
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: 09/12/2021
Date Data Arrived at EDR: 09/13/2021
Date Made Active in Reports: 09/28/2021
Number of Days to Update: 15
Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 09/13/2021
Next Scheduled EDR Contact: 01/03/2022
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: 06/30/2021
Date Data Arrived at EDR: 07/15/2021
Date Made Active in Reports: 10/06/2021
Number of Days to Update: 83
Source: Office of Emergency Services
Telephone: 916-845-8400
Last EDR Contact: 10/19/2021
Next Scheduled EDR Contact: 01/31/2022
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: 09/07/2021
Date Data Arrived at EDR: 09/07/2021
Date Made Active in Reports: 11/29/2021
Number of Days to Update: 83
Source: State Water Qualilty Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/07/2021
Next Scheduled EDR Contact: 03/21/2022
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: 09/07/2021
Date Data Arrived at EDR: 09/07/2021
Date Made Active in Reports: 11/29/2021
Number of Days to Update: 83
Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/07/2021
Next Scheduled EDR Contact: 03/21/2022
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: 09/13/2021
Date Data Arrived at EDR: 09/15/2021
Date Made Active in Reports: 10/12/2021
Number of Days to Update: 27

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 09/15/2021
Next Scheduled EDR Contact: 01/03/2022
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: 08/10/2021
Date Data Arrived at EDR: 08/17/2021
Date Made Active in Reports: 10/22/2021
Number of Days to Update: 66

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 11/16/2021
Next Scheduled EDR Contact: 02/28/2022
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: 10/15/2021
Next Scheduled EDR Contact: 01/24/2022
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: 04/02/2018
Date Data Arrived at EDR: 04/11/2018
Date Made Active in Reports: 11/06/2019
Number of Days to Update: 574

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 10/05/2021
Next Scheduled EDR Contact: 01/17/2022
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: 11/08/2021
Next Scheduled EDR Contact: 02/21/2022
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: 09/13/2021
Date Data Arrived at EDR: 09/15/2021
Date Made Active in Reports: 09/28/2021
Number of Days to Update: 13

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 09/15/2021
Next Scheduled EDR Contact: 01/03/2022
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: 11/01/2021
Next Scheduled EDR Contact: 02/14/2022
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: 11/05/2021
Next Scheduled EDR Contact: 02/14/2022
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: 06/17/2020
Date Made Active in Reports: 09/10/2020
Number of Days to Update: 85

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 09/17/2021
Next Scheduled EDR Contact: 12/27/2021
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: 12/31/2018
Date Data Arrived at EDR: 08/14/2020
Date Made Active in Reports: 11/04/2020
Number of Days to Update: 82

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 11/16/2021
Next Scheduled EDR Contact: 02/28/2022
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: 07/19/2021
Date Data Arrived at EDR: 07/19/2021
Date Made Active in Reports: 10/12/2021
Number of Days to Update: 85

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 10/20/2021
Next Scheduled EDR Contact: 01/31/2022
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: 10/20/2021
Date Data Arrived at EDR: 11/05/2021
Date Made Active in Reports: 11/29/2021
Number of Days to Update: 24

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 12/01/2021
Next Scheduled EDR Contact: 03/14/2022
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: 10/20/2021
Date Data Arrived at EDR: 11/05/2021
Date Made Active in Reports: 11/12/2021
Number of Days to Update: 7

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 10/18/2021
Next Scheduled EDR Contact: 01/31/2022
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: 12/30/2020
Date Data Arrived at EDR: 01/14/2021
Date Made Active in Reports: 03/05/2021
Number of Days to Update: 50
Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 12/01/2021
Next Scheduled EDR Contact: 02/14/2022
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: 11/19/2020
Date Data Arrived at EDR: 01/08/2021
Date Made Active in Reports: 03/22/2021
Number of Days to Update: 73
Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 10/08/2021
Next Scheduled EDR Contact: 01/17/2022
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: 09/30/2021
Next Scheduled EDR Contact: 01/17/2022
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.

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: 07/29/2021
Date Data Arrived at EDR: 08/24/2021
Date Made Active in Reports: 11/19/2021
Number of Days to Update: 87
Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 10/18/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

COAL ASH DOE: Steam-Electric Plant Operation Data
A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2019
Date Data Arrived at EDR: 12/01/2020
Date Made Active in Reports: 02/09/2021
Number of Days to Update: 70
Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 11/30/2021
Next Scheduled EDR Contact: 03/14/2022
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: 01/12/2017
Date Data Arrived at EDR: 03/05/2019
Date Made Active in Reports: 11/11/2019
Number of Days to Update: 251
Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 12/02/2021
Next Scheduled EDR Contact: 03/14/2022
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: 09/13/2019
Date Data Arrived at EDR: 11/06/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 96
Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 11/05/2021
Next Scheduled EDR Contact: 02/14/2022
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: 07/01/2019
Date Data Arrived at EDR: 07/01/2019
Date Made Active in Reports: 09/23/2019
Number of Days to Update: 84
Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 09/27/2021
Next Scheduled EDR Contact: 01/10/2022
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: 01/02/2020
Date Data Arrived at EDR: 01/28/2020
Date Made Active in Reports: 04/17/2020
Number of Days to Update: 80

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 10/26/2021
Next Scheduled EDR Contact: 02/07/2022
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: 06/30/2021
Date Data Arrived at EDR: 07/14/2021
Date Made Active in Reports: 07/16/2021
Number of Days to Update: 2

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 09/30/2021
Next Scheduled EDR Contact: 01/17/2022
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: 12/31/2017
Date Data Arrived at EDR: 06/22/2020
Date Made Active in Reports: 11/20/2020
Number of Days to Update: 151

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 09/15/2021
Next Scheduled EDR Contact: 01/03/2022
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: 10/05/2021
Next Scheduled EDR Contact: 01/17/2022
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: 07/26/2021
Date Data Arrived at EDR: 07/27/2021
Date Made Active in Reports: 10/22/2021
Number of Days to Update: 87

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 11/01/2021
Next Scheduled EDR Contact: 02/14/2022
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: 08/30/2019
Date Data Arrived at EDR: 11/15/2019
Date Made Active in Reports: 01/28/2020
Number of Days to Update: 74

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 11/29/2021
Next Scheduled EDR Contact: 02/28/2022
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 10/20/2021
Date Data Arrived at EDR: 11/05/2021
Date Made Active in Reports: 11/29/2021
Number of Days to Update: 24

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 11/30/2021
Next Scheduled EDR Contact: 01/10/2022
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

MINES VIOLATIONS: MSHA Violation Assessment Data

Mines violation and assessment information. Department of Labor, Mine Safety & Health Administration.

Date of Government Version: 06/30/2021
Date Data Arrived at EDR: 07/01/2021
Date Made Active in Reports: 09/28/2021
Number of Days to Update: 89

Source: DOL, Mine Safety & Health Admi
Telephone: 202-693-9424
Last EDR Contact: 11/24/2021
Next Scheduled EDR Contact: 03/14/2022
Data Release Frequency: Quarterly

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: 08/09/2021
Date Data Arrived at EDR: 08/24/2021
Date Made Active in Reports: 11/19/2021
Number of Days to Update: 87

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 11/22/2021
Next Scheduled EDR Contact: 03/07/2022
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: 05/06/2020
Date Data Arrived at EDR: 05/27/2020
Date Made Active in Reports: 08/13/2020
Number of Days to Update: 78

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 11/22/2021
Next Scheduled EDR Contact: 03/07/2022
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: 11/22/2021
Next Scheduled EDR Contact: 03/07/2022
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: 06/15/2021
Date Data Arrived at EDR: 06/16/2021
Date Made Active in Reports: 08/17/2021
Number of Days to Update: 62

Source: Department of Interior
Telephone: 202-208-2609
Last EDR Contact: 12/02/2021
Next Scheduled EDR Contact: 03/21/2022
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: 05/05/2021
Date Data Arrived at EDR: 05/18/2021
Date Made Active in Reports: 08/17/2021
Number of Days to Update: 91

Source: EPA
Telephone: (415) 947-8000
Last EDR Contact: 11/22/2021
Next Scheduled EDR Contact: 03/14/2022
Data Release Frequency: Quarterly

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 07/02/2020
Date Made Active in Reports: 09/17/2020
Number of Days to Update: 77

Source: Department of Defense
Telephone: 703-704-1564
Last EDR Contact: 10/07/2021
Next Scheduled EDR Contact: 01/24/2022
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 06/26/2021
Date Data Arrived at EDR: 07/01/2021
Date Made Active in Reports: 09/28/2021
Number of Days to Update: 89

Source: Environmental Protection Agency
Telephone: 202-564-2280
Last EDR Contact: 10/05/2021
Next Scheduled EDR Contact: 01/17/2022
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: 05/06/2021
Date Data Arrived at EDR: 05/21/2021
Date Made Active in Reports: 08/11/2021
Number of Days to Update: 82

Source: Environmental Protection Agency
Telephone: 202-564-0527
Last EDR Contact: 11/23/2021
Next Scheduled EDR Contact: 03/07/2022
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: 08/13/2021
Date Data Arrived at EDR: 08/13/2021
Date Made Active in Reports: 10/22/2021
Number of Days to Update: 70

Source: EPA
Telephone: 800-385-6164
Last EDR Contact: 11/15/2021
Next Scheduled EDR Contact: 02/28/2022
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: 09/20/2021
Date Data Arrived at EDR: 09/21/2021
Date Made Active in Reports: 12/08/2021
Number of Days to Update: 78

Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400
Last EDR Contact: 09/21/2021
Next Scheduled EDR Contact: 01/03/2022
Data Release Frequency: Quarterly

CUPA LIVERMORE-PLEASANTON: CUPA Facility Listing

list of facilities associated with the various CUPA programs in Livermore-Pleasanton

Date of Government Version: 05/01/2019
Date Data Arrived at EDR: 05/14/2019
Date Made Active in Reports: 07/17/2019
Number of Days to Update: 64

Source: Livermore-Pleasanton Fire Department
Telephone: 925-454-2361
Last EDR Contact: 11/19/2021
Next Scheduled EDR Contact: 02/21/2022
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: 08/27/2021
Date Data Arrived at EDR: 09/01/2021
Date Made Active in Reports: 11/19/2021
Number of Days to Update: 79
Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 12/08/2021
Next Scheduled EDR Contact: 03/14/2022
Data Release Frequency: Annually

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: 08/18/2021
Date Data Arrived at EDR: 08/23/2021
Date Made Active in Reports: 11/12/2021
Number of Days to Update: 81
Source: South Coast Air Quality Management District
Telephone: 909-396-3211
Last EDR Contact: 11/16/2021
Next Scheduled EDR Contact: 03/07/2022
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: 08/24/2021
Date Data Arrived at EDR: 08/25/2021
Date Made Active in Reports: 11/17/2021
Number of Days to Update: 84
Source: Antelope Valley Air Quality Management District
Telephone: 661-723-8070
Last EDR Contact: 11/23/2021
Next Scheduled EDR Contact: 03/14/2022
Data Release Frequency: Varies

EMI: Emissions Inventory Data
Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2019
Date Data Arrived at EDR: 06/10/2021
Date Made Active in Reports: 08/27/2021
Number of Days to Update: 78
Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 09/17/2021
Next Scheduled EDR Contact: 12/27/2021
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: 04/16/2021
Date Data Arrived at EDR: 04/20/2021
Date Made Active in Reports: 07/07/2021
Number of Days to Update: 78
Source: State Water Resoruces Control Board
Telephone: 916-445-9379
Last EDR Contact: 11/04/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing
Financial Assurance information

Date of Government Version: 04/14/2021
Date Data Arrived at EDR: 04/15/2021
Date Made Active in Reports: 07/06/2021
Number of Days to Update: 82
Source: Department of Toxic Substances Control
Telephone: 916-255-3628
Last EDR Contact: 10/05/2021
Next Scheduled EDR Contact: 01/31/2022
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: 08/13/2021
Date Data Arrived at EDR: 08/13/2021
Date Made Active in Reports: 11/05/2021
Number of Days to Update: 84
Source: California Integrated Waste Management Board
Telephone: 916-341-6066
Last EDR Contact: 11/16/2021
Next Scheduled EDR Contact: 02/21/2022
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: 12/31/2019
Date Data Arrived at EDR: 04/15/2020
Date Made Active in Reports: 07/02/2020
Number of Days to Update: 78

Source: California Environmental Protection Agency
Telephone: 916-255-1136
Last EDR Contact: 10/08/2021
Next Scheduled EDR Contact: 01/17/2022
Data Release Frequency: Annually

ICE: ICE

Contains data pertaining to the Permitted Facilities with Inspections / Enforcements sites tracked in Envirostor.

Date of Government Version: 08/13/2021
Date Data Arrived at EDR: 08/13/2021
Date Made Active in Reports: 11/08/2021
Number of Days to Update: 87

Source: Department of Toxic Subsances Control
Telephone: 877-786-9427
Last EDR Contact: 11/15/2021
Next Scheduled EDR Contact: 02/28/2022
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: 08/13/2021
Date Data Arrived at EDR: 08/13/2021
Date Made Active in Reports: 11/08/2021
Number of Days to Update: 87

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 11/15/2021
Next Scheduled EDR Contact: 02/28/2022
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: 07/01/2021
Date Data Arrived at EDR: 07/01/2021
Date Made Active in Reports: 09/24/2021
Number of Days to Update: 85

Source: Department of Toxic Substances Control
Telephone: 916-440-7145
Last EDR Contact: 10/05/2021
Next Scheduled EDR Contact: 01/17/2022
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: 09/07/2021
Date Data Arrived at EDR: 09/07/2021
Date Made Active in Reports: 11/29/2021
Number of Days to Update: 83

Source: Department of Conservation
Telephone: 916-322-1080
Last EDR Contact: 12/07/2021
Next Scheduled EDR Contact: 03/21/2022
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: 08/05/2021
Date Data Arrived at EDR: 08/31/2021
Date Made Active in Reports: 11/19/2021
Number of Days to Update: 80

Source: Department of Public Health
Telephone: 916-558-1784
Last EDR Contact: 11/30/2021
Next Scheduled EDR Contact: 03/14/2022
Data Release Frequency: Varies

NPDES: NPDES Permits Listing

A listing of NPDES permits, including stormwater.

Date of Government Version: 05/10/2021
Date Data Arrived at EDR: 05/11/2021
Date Made Active in Reports: 07/27/2021
Number of Days to Update: 77

Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 11/09/2021
Next Scheduled EDR Contact: 02/21/2022
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: 08/30/2021
Date Data Arrived at EDR: 08/31/2021
Date Made Active in Reports: 11/19/2021
Number of Days to Update: 80

Source: Department of Pesticide Regulation
Telephone: 916-445-4038
Last EDR Contact: 11/30/2021
Next Scheduled EDR Contact: 03/14/2022
Data Release Frequency: Quarterly

PROC: Certified Processors Database

A listing of certified processors.

Date of Government Version: 06/04/2021
Date Data Arrived at EDR: 06/04/2021
Date Made Active in Reports: 08/27/2021
Number of Days to Update: 84

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 11/29/2021
Next Scheduled EDR Contact: 03/21/2022
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: 03/12/2021
Date Data Arrived at EDR: 03/16/2021
Date Made Active in Reports: 06/01/2021
Number of Days to Update: 77

Source: State Water Resources Control Board
Telephone: 916-445-3846
Last EDR Contact: 12/08/2021
Next Scheduled EDR Contact: 03/28/2022
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: 06/03/2021
Date Data Arrived at EDR: 06/03/2021
Date Made Active in Reports: 08/25/2021
Number of Days to Update: 83

Source: Deaprtment of Conservation
Telephone: 916-445-2408
Last EDR Contact: 12/07/2021
Next Scheduled EDR Contact: 03/21/2022
Data Release Frequency: Varies

UIC GEO: Underground Injection Control Sites (GEOTRACKER)
Underground control injection sites

Date of Government Version: 09/07/2021
Date Data Arrived at EDR: 09/07/2021
Date Made Active in Reports: 11/29/2021
Number of Days to Update: 83
Source: State Water Resource Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/07/2021
Next Scheduled EDR Contact: 03/21/2022
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: 02/11/2021
Date Data Arrived at EDR: 07/01/2021
Date Made Active in Reports: 09/29/2021
Number of Days to Update: 90
Source: RWQCB, Central Valley Region
Telephone: 559-445-5577
Last EDR Contact: 10/08/2021
Next Scheduled EDR Contact: 01/17/2022
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: 11/15/2021
Next Scheduled EDR Contact: 02/28/2022
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: 09/14/2021
Next Scheduled EDR Contact: 01/03/2022
Data Release Frequency: No Update Planned

MILITARY PRIV SITES: Military Privatized Sites (GEOTRACKER)
Military privatized sites

Date of Government Version: 09/07/2021
Date Data Arrived at EDR: 09/07/2021
Date Made Active in Reports: 11/29/2021
Number of Days to Update: 83
Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/07/2021
Next Scheduled EDR Contact: 03/21/2022
Data Release Frequency: Varies

PROJECT: Project Sites (GEOTRACKER)
Projects sites

Date of Government Version: 09/07/2021
Date Data Arrived at EDR: 09/07/2021
Date Made Active in Reports: 11/29/2021
Number of Days to Update: 83
Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/07/2021
Next Scheduled EDR Contact: 03/21/2022
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: 09/07/2021
Date Data Arrived at EDR: 09/08/2021
Date Made Active in Reports: 12/01/2021
Number of Days to Update: 84

Source: State Water Resources Control Board
Telephone: 916-341-5810
Last EDR Contact: 12/07/2021
Next Scheduled EDR Contact: 03/21/2022
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: 08/30/2021
Date Data Arrived at EDR: 08/31/2021
Date Made Active in Reports: 11/19/2021
Number of Days to Update: 80

Source: State Water Resources Control Board
Telephone: 866-794-4977
Last EDR Contact: 11/30/2021
Next Scheduled EDR Contact: 03/14/2022
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: 07/15/2021
Date Data Arrived at EDR: 07/15/2021
Date Made Active in Reports: 10/06/2021
Number of Days to Update: 83

Source: California Environmental Protection Agency
Telephone: 916-323-2514
Last EDR Contact: 10/19/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Varies

NON-CASE INFO: Non-Case Information Sites (GEOTRACKER)

Non-Case Information sites

Date of Government Version: 09/07/2021
Date Data Arrived at EDR: 09/07/2021
Date Made Active in Reports: 11/29/2021
Number of Days to Update: 83

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/07/2021
Next Scheduled EDR Contact: 03/21/2022
Data Release Frequency: Varies

OTHER OIL GAS: Other Oil & Gas Projects Sites (GEOTRACKER)

Other Oil & Gas Projects sites

Date of Government Version: 09/07/2021
Date Data Arrived at EDR: 09/07/2021
Date Made Active in Reports: 11/29/2021
Number of Days to Update: 83

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/07/2021
Next Scheduled EDR Contact: 03/21/2022
Data Release Frequency: Varies

PROD WATER PONDS: Produced Water Ponds Sites (GEOTRACKER)

Produced water ponds sites

Date of Government Version: 09/07/2021
Date Data Arrived at EDR: 09/07/2021
Date Made Active in Reports: 11/29/2021
Number of Days to Update: 83

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/07/2021
Next Scheduled EDR Contact: 03/21/2022
Data Release Frequency: Varies

SAMPLING POINT: Sampling Point ? Public Sites (GEOTRACKER)

Sampling point - public sites

Date of Government Version: 09/07/2021
Date Data Arrived at EDR: 09/07/2021
Date Made Active in Reports: 11/29/2021
Number of Days to Update: 83

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/07/2021
Next Scheduled EDR Contact: 03/21/2022
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: 09/07/2021
Date Data Arrived at EDR: 09/07/2021
Date Made Active in Reports: 11/29/2021
Number of Days to Update: 83

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/07/2021
Next Scheduled EDR Contact: 03/21/2022
Data Release Frequency: Varies

HWTS: Hazardous Waste Tracking System

DTSC maintains the Hazardous Waste Tracking System that stores ID number information since the early 1980s and manifest data since 1993. The system collects both manifest copies from the generator and destination facility.

Date of Government Version: 07/13/2021
Date Data Arrived at EDR: 07/14/2021
Date Made Active in Reports: 10/06/2021
Number of Days to Update: 84

Source: Department of Toxic Substances Control
Telephone: 916-324-2444
Last EDR Contact: 09/30/2021
Next Scheduled EDR Contact: 01/17/2022
Data Release Frequency: Varies

PCS: Permit Compliance System

PCS is a computerized management information system that contains data on National Pollutant Discharge Elimination System (NPDES) permit holding facilities. PCS tracks the permit, compliance, and enforcement status of NPDES facilities.

Date of Government Version: 07/14/2011
Date Data Arrived at EDR: 08/05/2011
Date Made Active in Reports: 09/29/2011
Number of Days to Update: 55

Source: EPA, Office of Water
Telephone: 202-564-2496
Last EDR Contact: 09/30/2021
Next Scheduled EDR Contact: 01/17/2022
Data Release Frequency: Semi-Annually

PCS INACTIVE: Listing of Inactive PCS Permits

An inactive permit is a facility that has shut down or is no longer discharging.

Date of Government Version: 11/05/2014
Date Data Arrived at EDR: 01/06/2015
Date Made Active in Reports: 05/06/2015
Number of Days to Update: 120

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/30/2021
Next Scheduled EDR Contact: 01/17/2022
Data Release Frequency: Semi-Annually

MINES MRDS: Mineral Resources Data System

Mineral Resources Data System

Date of Government Version: 04/06/2018
Date Data Arrived at EDR: 10/21/2019
Date Made Active in Reports: 10/24/2019
Number of Days to Update: 3

Source: USGS
Telephone: 703-648-6533
Last EDR Contact: 11/23/2021
Next Scheduled EDR Contact: 03/07/2022
Data Release Frequency: Varies

PCS ENF: Enforcement data

No description is available for this data

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 02/05/2015
Date Made Active in Reports: 03/06/2015
Number of Days to Update: 29

Source: EPA
Telephone: 202-564-2497
Last EDR Contact: 09/30/2021
Next Scheduled EDR Contact: 01/17/2022
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
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 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: 09/30/2021
Next Scheduled EDR Contact: 01/17/2022
Data Release Frequency: Semi-Annually

UST ALAMEDA: Underground Tanks

Underground storage tank sites located in Alameda county.

Date of Government Version: 06/29/2021
Date Data Arrived at EDR: 06/30/2021
Date Made Active in Reports: 09/22/2021
Number of Days to Update: 84

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 09/30/2021
Next Scheduled EDR Contact: 01/17/2022
Data Release Frequency: Semi-Annually

AMADOR COUNTY:

CUPA AMADOR: CUPA Facility List

Cupa Facility List

Date of Government Version: 08/05/2021
Date Data Arrived at EDR: 08/06/2021
Date Made Active in Reports: 09/17/2021
Number of Days to Update: 42

Source: Amador County Environmental Health
Telephone: 209-223-6439
Last EDR Contact: 10/29/2021
Next Scheduled EDR Contact: 02/14/2022
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: 09/30/2021
Next Scheduled EDR Contact: 01/17/2022
Data Release Frequency: No Update Planned

CALVERAS COUNTY:

CUPA CALVERAS: CUPA Facility Listing
Cupa Facility Listing

Date of Government Version: 06/15/2021
Date Data Arrived at EDR: 06/16/2021
Date Made Active in Reports: 07/02/2021
Number of Days to Update: 16

Source: Calveras County Environmental Health
Telephone: 209-754-6399
Last EDR Contact: 09/14/2021
Next Scheduled EDR Contact: 01/03/2022
Data Release Frequency: Quarterly

COLUSA COUNTY:

CUPA COLUSA: CUPA Facility List
Cupa facility list.

Date of Government Version: 04/06/2020
Date Data Arrived at EDR: 04/23/2020
Date Made Active in Reports: 07/10/2020
Number of Days to Update: 78

Source: Health & Human Services
Telephone: 530-458-0396
Last EDR Contact: 10/29/2021
Next Scheduled EDR Contact: 02/14/2022
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: 07/20/2021
Date Data Arrived at EDR: 07/20/2021
Date Made Active in Reports: 10/11/2021
Number of Days to Update: 83

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 10/22/2021
Next Scheduled EDR Contact: 02/07/2022
Data Release Frequency: Semi-Annually

DEL NORTE COUNTY:

CUPA DEL NORTE: CUPA Facility List
Cupa Facility list

Date of Government Version: 06/29/2021
Date Data Arrived at EDR: 07/23/2021
Date Made Active in Reports: 10/08/2021
Number of Days to Update: 77

Source: Del Norte County Environmental Health Division
Telephone: 707-465-0426
Last EDR Contact: 10/29/2021
Next Scheduled EDR Contact: 02/07/2022
Data Release Frequency: Varies

EL DORADO COUNTY:

CUPA EL DORADO: CUPA Facility List
CUPA facility list.

Date of Government Version: 07/30/2021
Date Data Arrived at EDR: 08/03/2021
Date Made Active in Reports: 10/26/2021
Number of Days to Update: 84

Source: El Dorado County Environmental Management Department
Telephone: 530-621-6623
Last EDR Contact: 11/16/2021
Next Scheduled EDR Contact: 02/07/2022
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: 04/09/2021
Date Data Arrived at EDR: 06/23/2021
Date Made Active in Reports: 09/17/2021
Number of Days to Update: 86

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 10/01/2021
Next Scheduled EDR Contact: 01/10/2022
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: 07/13/2021
Next Scheduled EDR Contact: 11/01/2021
Data Release Frequency: No Update Planned

HUMBOLDT COUNTY:

CUPA HUMBOLDT: CUPA Facility List
CUPA facility list.

Date of Government Version: 08/12/2021
Date Data Arrived at EDR: 08/12/2021
Date Made Active in Reports: 11/08/2021
Number of Days to Update: 88

Source: Humboldt County Environmental Health
Telephone: N/A
Last EDR Contact: 11/11/2021
Next Scheduled EDR Contact: 02/28/2022
Data Release Frequency: Semi-Annually

IMPERIAL COUNTY:

CUPA IMPERIAL: CUPA Facility List
Cupa facility list.

Date of Government Version: 07/13/2021
Date Data Arrived at EDR: 07/15/2021
Date Made Active in Reports: 10/06/2021
Number of Days to Update: 83

Source: San Diego Border Field Office
Telephone: 760-339-2777
Last EDR Contact: 10/15/2021
Next Scheduled EDR Contact: 01/31/2022
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: 11/11/2021
Next Scheduled EDR Contact: 02/28/2022
Data Release Frequency: Varies

KERN COUNTY:

CUPA KERN: CUPA Facility List
A listing of sites included in the Kern County Hazardous Material Business Plan.

Date of Government Version: 07/06/2021
Date Data Arrived at EDR: 08/12/2021
Date Made Active in Reports: 10/07/2021
Number of Days to Update: 56

Source: Kern County Public Health
Telephone: 661-321-3000
Last EDR Contact: 11/11/2021
Next Scheduled EDR Contact: 02/14/2022
Data Release Frequency: Varies

UST KERN: Underground Storage Tank Sites & Tank Listing
Kern County Sites and Tanks Listing.

Date of Government Version: 07/06/2021
Date Data Arrived at EDR: 08/12/2021
Date Made Active in Reports: 08/18/2021
Number of Days to Update: 6

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 11/11/2021
Next Scheduled EDR Contact: 02/14/2022
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: 12/03/2020
Date Data Arrived at EDR: 01/26/2021
Date Made Active in Reports: 04/14/2021
Number of Days to Update: 78

Source: Kings County Department of Public Health
Telephone: 559-584-1411
Last EDR Contact: 11/11/2021
Next Scheduled EDR Contact: 02/28/2022
Data Release Frequency: Varies

LAKE COUNTY:

CUPA LAKE: CUPA Facility List
Cupa facility list

Date of Government Version: 07/27/2021
Date Data Arrived at EDR: 07/28/2021
Date Made Active in Reports: 10/21/2021
Number of Days to Update: 85

Source: Lake County Environmental Health
Telephone: 707-263-1164
Last EDR Contact: 10/06/2021
Next Scheduled EDR Contact: 01/24/2022
Data Release Frequency: Varies

LASSEN COUNTY:

CUPA LASSEN: CUPA Facility List
Cupa facility list

Date of Government Version: 07/31/2020
Date Data Arrived at EDR: 08/21/2020
Date Made Active in Reports: 11/09/2020
Number of Days to Update: 80

Source: Lassen County Environmental Health
Telephone: 530-251-8528
Last EDR Contact: 11/11/2021
Next Scheduled EDR Contact: 01/31/2022
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: 12/08/2021
Next Scheduled EDR Contact: 03/28/2022
Data Release Frequency: No Update Planned

HMS LOS ANGELES: HMS: Street Number List
Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 07/08/2021
Date Data Arrived at EDR: 07/09/2021
Date Made Active in Reports: 09/29/2021
Number of Days to Update: 82

Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 10/15/2021
Next Scheduled EDR Contact: 01/17/2022
Data Release Frequency: Semi-Annually

LF LOS ANGELES: List of Solid Waste Facilities
Solid Waste Facilities in Los Angeles County.

Date of Government Version: 07/09/2021
Date Data Arrived at EDR: 07/09/2021
Date Made Active in Reports: 09/29/2021
Number of Days to Update: 82

Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 10/08/2021
Next Scheduled EDR Contact: 01/24/2022
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: 01/01/2021
Date Data Arrived at EDR: 02/18/2021
Date Made Active in Reports: 05/10/2021
Number of Days to Update: 81

Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 10/05/2021
Next Scheduled EDR Contact: 01/24/2022
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: 06/01/2019
Date Data Arrived at EDR: 06/25/2019
Date Made Active in Reports: 08/22/2019
Number of Days to Update: 58

Source: Los Angeles Fire Department
Telephone: 213-978-3800
Last EDR Contact: 09/24/2021
Next Scheduled EDR Contact: 01/03/2022
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: 02/04/2021
Date Data Arrived at EDR: 04/16/2021
Date Made Active in Reports: 04/21/2021
Number of Days to Update: 5

Source: Los Angeles County Department of Public Works
Telephone: 626-458-6973
Last EDR Contact: 10/08/2021
Next Scheduled EDR Contact: 01/24/2022
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: 04/19/2021
Date Data Arrived at EDR: 06/17/2021
Date Made Active in Reports: 06/28/2021
Number of Days to Update: 11

Source: Los Angeles Fire Department
Telephone: 213-978-3800
Last EDR Contact: 09/24/2021
Next Scheduled EDR Contact: 01/03/2022
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: 04/19/2021
Date Data Arrived at EDR: 06/17/2021
Date Made Active in Reports: 09/14/2021
Number of Days to Update: 89

Source: Los Angeles Fire Department
Telephone: 213-978-3800
Last EDR Contact: 09/24/2021
Next Scheduled EDR Contact: 01/03/2022
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: 05/26/2021
Date Data Arrived at EDR: 07/09/2021
Date Made Active in Reports: 09/29/2021
Number of Days to Update: 82

Source: Community Health Services
Telephone: 323-890-7806
Last EDR Contact: 10/15/2021
Next Scheduled EDR Contact: 01/24/2022
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: 10/06/2021
Next Scheduled EDR Contact: 01/24/2022
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: 10/14/2021
Next Scheduled EDR Contact: 01/31/2022
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: 02/02/2021
Date Data Arrived at EDR: 04/28/2021
Date Made Active in Reports: 07/13/2021
Number of Days to Update: 76

Source: City of Torrance Fire Department
Telephone: 310-618-2973
Last EDR Contact: 10/15/2021
Next Scheduled EDR Contact: 01/31/2022
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: 08/10/2020
Date Data Arrived at EDR: 08/12/2020
Date Made Active in Reports: 10/23/2020
Number of Days to Update: 72

Source: Madera County Environmental Health
Telephone: 559-675-7823
Last EDR Contact: 11/11/2021
Next Scheduled EDR Contact: 02/28/2022
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: 09/23/2021
Next Scheduled EDR Contact: 01/10/2022
Data Release Frequency: Semi-Annually

MENDOCINO COUNTY:

UST MENDOCINO: Mendocino County UST Database
A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 09/22/2021
Date Data Arrived at EDR: 11/18/2021
Date Made Active in Reports: 11/22/2021
Number of Days to Update: 4

Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 11/16/2021
Next Scheduled EDR Contact: 03/07/2022
Data Release Frequency: Annually

MERCED COUNTY:

CUPA MERCED: CUPA Facility List
CUPA facility list.

Date of Government Version: 08/11/2021
Date Data Arrived at EDR: 08/12/2021
Date Made Active in Reports: 11/08/2021
Number of Days to Update: 88

Source: Merced County Environmental Health
Telephone: 209-381-1094
Last EDR Contact: 11/23/2021
Next Scheduled EDR Contact: 02/28/2022
Data Release Frequency: Varies

MONO COUNTY:

CUPA MONO: CUPA Facility List
CUPA Facility List

Date of Government Version: 02/22/2021
Date Data Arrived at EDR: 03/02/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 78

Source: Mono County Health Department
Telephone: 760-932-5580
Last EDR Contact: 12/02/2021
Next Scheduled EDR Contact: 06/06/3021
Data Release Frequency: Varies

MONTEREY COUNTY:

CUPA MONTEREY: CUPA Facility Listing
CUPA Program listing from the Environmental Health Division.

Date of Government Version: 06/23/2021
Date Data Arrived at EDR: 06/23/2021
Date Made Active in Reports: 06/24/2021
Number of Days to Update: 1

Source: Monterey County Health Department
Telephone: 831-796-1297
Last EDR Contact: 09/23/2021
Next Scheduled EDR Contact: 01/10/2022
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: 11/16/2021
Next Scheduled EDR Contact: 03/07/2022
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: 09/05/2019
Date Data Arrived at EDR: 09/09/2019
Date Made Active in Reports: 10/31/2019
Number of Days to Update: 52

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 11/16/2021
Next Scheduled EDR Contact: 03/07/2022
Data Release Frequency: No Update Planned

NEVADA COUNTY:

CUPA NEVADA: CUPA Facility List
CUPA facility list.

Date of Government Version: 07/28/2021
Date Data Arrived at EDR: 07/28/2021
Date Made Active in Reports: 10/21/2021
Number of Days to Update: 85

Source: Community Development Agency
Telephone: 530-265-1467
Last EDR Contact: 10/22/2021
Next Scheduled EDR Contact: 02/07/2022
Data Release Frequency: Varies

ORANGE COUNTY:

IND_SITE ORANGE: List of Industrial Site Cleanups
Petroleum and non-petroleum spills.

Date of Government Version: 07/09/2021
Date Data Arrived at EDR: 08/03/2021
Date Made Active in Reports: 10/26/2021
Number of Days to Update: 84

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 10/29/2021
Next Scheduled EDR Contact: 02/14/2022
Data Release Frequency: Annually

LUST ORANGE: List of Underground Storage Tank Cleanups
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 07/09/2021
Date Data Arrived at EDR: 08/03/2021
Date Made Active in Reports: 10/26/2021
Number of Days to Update: 84

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 10/29/2021
Next Scheduled EDR Contact: 02/14/2022
Data Release Frequency: Quarterly

UST ORANGE: List of Underground Storage Tank Facilities
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 07/09/2021
Date Data Arrived at EDR: 07/29/2021
Date Made Active in Reports: 10/19/2021
Number of Days to Update: 82

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 10/29/2021
Next Scheduled EDR Contact: 02/14/2022
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: 09/07/2021
Date Data Arrived at EDR: 09/09/2021
Date Made Active in Reports: 11/29/2021
Number of Days to Update: 81

Source: Placer County Health and Human Services
Telephone: 530-745-2363
Last EDR Contact: 11/23/2021
Next Scheduled EDR Contact: 03/14/2022
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: 10/14/2021
Next Scheduled EDR Contact: 01/31/2022
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: 06/29/2021
Date Data Arrived at EDR: 06/30/2021
Date Made Active in Reports: 07/14/2021
Number of Days to Update: 14

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 12/08/2021
Next Scheduled EDR Contact: 03/28/2022
Data Release Frequency: Quarterly

UST RIVERSIDE: Underground Storage Tank Tank List
Underground storage tank sites located in Riverside county.

Date of Government Version: 06/29/2021
Date Data Arrived at EDR: 06/30/2021
Date Made Active in Reports: 07/14/2021
Number of Days to Update: 14
Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 12/08/2021
Next Scheduled EDR Contact: 03/28/2022
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: 03/30/2021
Date Data Arrived at EDR: 04/01/2021
Date Made Active in Reports: 06/23/2021
Number of Days to Update: 83
Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 09/28/2021
Next Scheduled EDR Contact: 01/10/2022
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: 08/02/2021
Date Data Arrived at EDR: 08/04/2021
Date Made Active in Reports: 11/02/2021
Number of Days to Update: 90
Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 10/01/2021
Next Scheduled EDR Contact: 01/10/2022
Data Release Frequency: Quarterly

SAN BENITO COUNTY:

CUPA SAN BENITO: CUPA Facility List
Cupa facility list

Date of Government Version: 07/27/2021
Date Data Arrived at EDR: 07/28/2021
Date Made Active in Reports: 10/21/2021
Number of Days to Update: 85
Source: San Benito County Environmental Health
Telephone: N/A
Last EDR Contact: 10/29/2021
Next Scheduled EDR Contact: 02/14/2022
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: 08/11/2021
Date Data Arrived at EDR: 08/12/2021
Date Made Active in Reports: 11/08/2021
Number of Days to Update: 88
Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 11/01/2021
Next Scheduled EDR Contact: 02/14/2022
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: 08/30/2021
Date Data Arrived at EDR: 08/31/2021
Date Made Active in Reports: 11/19/2021
Number of Days to Update: 80

Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 11/30/2021
Next Scheduled EDR Contact: 03/14/2022
Data Release Frequency: Quarterly

LF SAN DIEGO: Solid Waste Facilities

San Diego County Solid Waste Facilities.

Date of Government Version: 10/01/2020
Date Data Arrived at EDR: 11/23/2020
Date Made Active in Reports: 02/08/2021
Number of Days to Update: 77

Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 12/08/2021
Next Scheduled EDR Contact: 01/31/2022
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: 07/14/2020
Date Data Arrived at EDR: 07/16/2020
Date Made Active in Reports: 09/29/2020
Number of Days to Update: 75

Source: Department of Environmental Health
Telephone: 858-505-6874
Last EDR Contact: 10/15/2021
Next Scheduled EDR Contact: 01/31/2022
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: 11/23/2021
Next Scheduled EDR Contact: 03/14/2022
Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

CUPA SAN FRANCISCO CO: CUPA Facility Listing

Cupa facilities

Date of Government Version: 08/05/2021
Date Data Arrived at EDR: 08/05/2021
Date Made Active in Reports: 10/29/2021
Number of Days to Update: 85

Source: San Francisco County Department of Environmental Health
Telephone: 415-252-3896
Last EDR Contact: 11/11/2021
Next Scheduled EDR Contact: 02/14/2022
Data Release Frequency: Varies

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: 11/01/2021
Next Scheduled EDR Contact: 02/14/2022
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: 08/05/2021
Date Data Arrived at EDR: 08/05/2021
Date Made Active in Reports: 10/29/2021
Number of Days to Update: 85

Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 10/31/2021
Next Scheduled EDR Contact: 02/14/2022
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: 09/09/2021
Next Scheduled EDR Contact: 12/27/2021
Data Release Frequency: Semi-Annually

SAN LUIS OBISPO COUNTY:

CUPA SAN LUIS OBISPO: CUPA Facility List
Cupa Facility List.

Date of Government Version: 08/10/2021
Date Data Arrived at EDR: 08/11/2021
Date Made Active in Reports: 11/08/2021
Number of Days to Update: 89

Source: San Luis Obispo County Public Health Department
Telephone: 805-781-5596
Last EDR Contact: 11/11/2021
Next Scheduled EDR Contact: 02/28/2022
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: 02/20/2020
Date Data Arrived at EDR: 02/20/2020
Date Made Active in Reports: 04/24/2020
Number of Days to Update: 64

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 09/10/2021
Next Scheduled EDR Contact: 12/20/2021
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: 12/02/2021
Next Scheduled EDR Contact: 03/21/2022
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: 11/11/2021
Next Scheduled EDR Contact: 02/28/2022
Data Release Frequency: No Update Planned

SANTA CLARA COUNTY:

CUPA SANTA CLARA: Cupa Facility List
Cupa facility list

Date of Government Version: 08/04/2021
Date Data Arrived at EDR: 08/05/2021
Date Made Active in Reports: 10/29/2021
Number of Days to Update: 85

Source: Department of Environmental Health
Telephone: 408-918-1973
Last EDR Contact: 11/18/2021
Next Scheduled EDR Contact: 02/27/2022
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: 11/16/2021
Next Scheduled EDR Contact: 03/07/2022
Data Release Frequency: No Update Planned

SAN JOSE HAZMAT: Hazardous Material Facilities
Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 11/03/2020
Date Data Arrived at EDR: 11/05/2020
Date Made Active in Reports: 01/26/2021
Number of Days to Update: 82

Source: City of San Jose Fire Department
Telephone: 408-535-7694
Last EDR Contact: 11/23/2021
Next Scheduled EDR Contact: 02/14/2022
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: 11/11/2021
Next Scheduled EDR Contact: 02/28/2022
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: 11/11/2021
Next Scheduled EDR Contact: 02/28/2022
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: 06/04/2019
Date Data Arrived at EDR: 06/06/2019
Date Made Active in Reports: 08/13/2019
Number of Days to Update: 68

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 11/23/2021
Next Scheduled EDR Contact: 03/14/2022
Data Release Frequency: Quarterly

UST SOLANO: Underground Storage Tanks
Underground storage tank sites located in Solano county.

Date of Government Version: 06/22/2021
Date Data Arrived at EDR: 06/23/2021
Date Made Active in Reports: 09/17/2021
Number of Days to Update: 86

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 11/23/2021
Next Scheduled EDR Contact: 03/14/2022
Data Release Frequency: Quarterly

SONOMA COUNTY:

CUPA SONOMA: Cupa Facility List
Cupa Facility list

Date of Government Version: 07/02/2021
Date Data Arrived at EDR: 07/06/2021
Date Made Active in Reports: 07/14/2021
Number of Days to Update: 8

Source: County of Sonoma Fire & Emergency Services Department
Telephone: 707-565-1174
Last EDR Contact: 09/14/2021
Next Scheduled EDR Contact: 01/03/2022
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: 06/30/2021
Date Data Arrived at EDR: 06/30/2021
Date Made Active in Reports: 09/24/2021
Number of Days to Update: 86

Source: Department of Health Services
Telephone: 707-565-6565
Last EDR Contact: 09/14/2021
Next Scheduled EDR Contact: 01/03/2022
Data Release Frequency: Quarterly

STANISLAUS COUNTY:

CUPA STANISLAUS: CUPA Facility List
Cupa facility list

Date of Government Version: 05/14/2021
Date Data Arrived at EDR: 05/17/2021
Date Made Active in Reports: 08/03/2021
Number of Days to Update: 78

Source: Stanislaus County Department of Ennvironmental Protection
Telephone: 209-525-6751
Last EDR Contact: 10/06/2021
Next Scheduled EDR Contact: 01/24/2022
Data Release Frequency: Varies

SUTTER COUNTY:

UST SUTTER: Underground Storage Tanks
Underground storage tank sites located in Sutter county.

Date of Government Version: 08/23/2021
Date Data Arrived at EDR: 08/25/2021
Date Made Active in Reports: 11/17/2021
Number of Days to Update: 84

Source: Sutter County Environmental Health Services
Telephone: 530-822-7500
Last EDR Contact: 11/23/2021
Next Scheduled EDR Contact: 03/14/2022
Data Release Frequency: Semi-Annually

TEHAMA COUNTY:

CUPA TEHAMA: CUPA Facility List
Cupa facilities

Date of Government Version: 01/13/2021
Date Data Arrived at EDR: 01/14/2021
Date Made Active in Reports: 04/06/2021
Number of Days to Update: 82

Source: Tehama County Department of Environmental Health
Telephone: 530-527-8020
Last EDR Contact: 12/08/2021
Next Scheduled EDR Contact: 02/14/2022
Data Release Frequency: Varies

TRINITY COUNTY:

CUPA TRINITY: CUPA Facility List
Cupa facility list

Date of Government Version: 07/14/2021
Date Data Arrived at EDR: 07/15/2021
Date Made Active in Reports: 10/06/2021
Number of Days to Update: 83

Source: Department of Toxic Substances Control
Telephone: 760-352-0381
Last EDR Contact: 10/15/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Varies

TULARE COUNTY:

CUPA TULARE: CUPA Facility List
Cupa program facilities

Date of Government Version: 04/26/2021
Date Data Arrived at EDR: 04/28/2021
Date Made Active in Reports: 07/13/2021
Number of Days to Update: 76

Source: Tulare County Environmental Health Services Division
Telephone: 559-624-7400
Last EDR Contact: 11/01/2021
Next Scheduled EDR Contact: 02/14/2022
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: 10/14/2021
Next Scheduled EDR Contact: 01/31/2022
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: 05/26/2021
Date Data Arrived at EDR: 07/19/2021
Date Made Active in Reports: 10/08/2021
Number of Days to Update: 81
Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 10/18/2021
Next Scheduled EDR Contact: 01/31/2022
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: 09/23/2021
Next Scheduled EDR Contact: 01/10/2022
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: 11/05/2021
Next Scheduled EDR Contact: 02/21/2022
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: 05/26/2021
Date Data Arrived at EDR: 07/19/2021
Date Made Active in Reports: 10/07/2021
Number of Days to Update: 80
Source: Ventura County Resource Management Agency
Telephone: 805-654-2813
Last EDR Contact: 10/18/2021
Next Scheduled EDR Contact: 01/31/2022
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: 07/26/2021
Date Data Arrived at EDR: 09/08/2021
Date Made Active in Reports: 11/29/2021
Number of Days to Update: 82
Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 12/07/2021
Next Scheduled EDR Contact: 03/21/2022
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: 06/22/2021
Date Data Arrived at EDR: 06/28/2021
Date Made Active in Reports: 09/21/2021
Number of Days to Update: 85
Source: Yolo County Department of Health
Telephone: 530-666-8646
Last EDR Contact: 09/23/2021
Next Scheduled EDR Contact: 01/10/2022
Data Release Frequency: Annually

YUBA COUNTY:

CUPA YUBA: CUPA Facility List
CUPA facility listing for Yuba County.

Date of Government Version: 07/20/2021
Date Data Arrived at EDR: 07/20/2021
Date Made Active in Reports: 10/08/2021
Number of Days to Update: 80

Source: Yuba County Environmental Health Department
Telephone: 530-749-7523
Last EDR Contact: 10/22/2021
Next Scheduled EDR Contact: 02/07/2022
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: 07/23/2021
Date Data Arrived at EDR: 08/10/2021
Date Made Active in Reports: 11/08/2021
Number of Days to Update: 90

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 11/12/2021
Next Scheduled EDR Contact: 02/21/2022
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: 10/05/2021
Next Scheduled EDR Contact: 01/17/2022
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: 04/29/2020
Date Made Active in Reports: 07/10/2020
Number of Days to Update: 72

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 10/29/2021
Next Scheduled EDR Contact: 02/07/2022
Data Release Frequency: Quarterly

PA MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 06/30/2018
Date Data Arrived at EDR: 07/19/2019
Date Made Active in Reports: 09/10/2019
Number of Days to Update: 53

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 10/07/2021
Next Scheduled EDR Contact: 01/24/2022
Data Release Frequency: Annually

RI MANIFEST: Manifest information
Hazardous waste manifest information

Date of Government Version: 12/31/2019
Date Data Arrived at EDR: 02/11/2021
Date Made Active in Reports: 02/24/2021
Number of Days to Update: 13

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 11/29/2021
Next Scheduled EDR Contact: 02/28/2022
Data Release Frequency: Annually

WI MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 05/31/2018
Date Data Arrived at EDR: 06/19/2019
Date Made Active in Reports: 09/03/2019
Number of Days to Update: 76

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 12/06/2021
Next Scheduled EDR Contact: 03/21/2022
Data Release Frequency: Annually

Oil/Gas Pipelines
Source: Endeavor Business Media
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 Endeavor Business Media. This information is provided on a best effort basis and Endeavor Business Media does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of Endeavor Business Media.

Electric Power Transmission Line Data
Source: Endeavor Business Media
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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

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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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GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

DUKE - PATTERSON AVENUE
PATTERSON AVENUE
PERRIS, CA 92571

TARGET PROPERTY COORDINATES

Latitude (North):	33.854856 - 33ˆ 51’ 17.48’’
Longitude (West):	117.252128 - 117ˆ 15’ 7.66’’
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	476676.4
UTM Y (Meters):	3745897.5
Elevation:	1498 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	12015925 STEELE PEAK, CA
Version Date:	2018
Southeast Map:	12015907 PERRIS, CA
Version Date:	2018

EDR’s GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

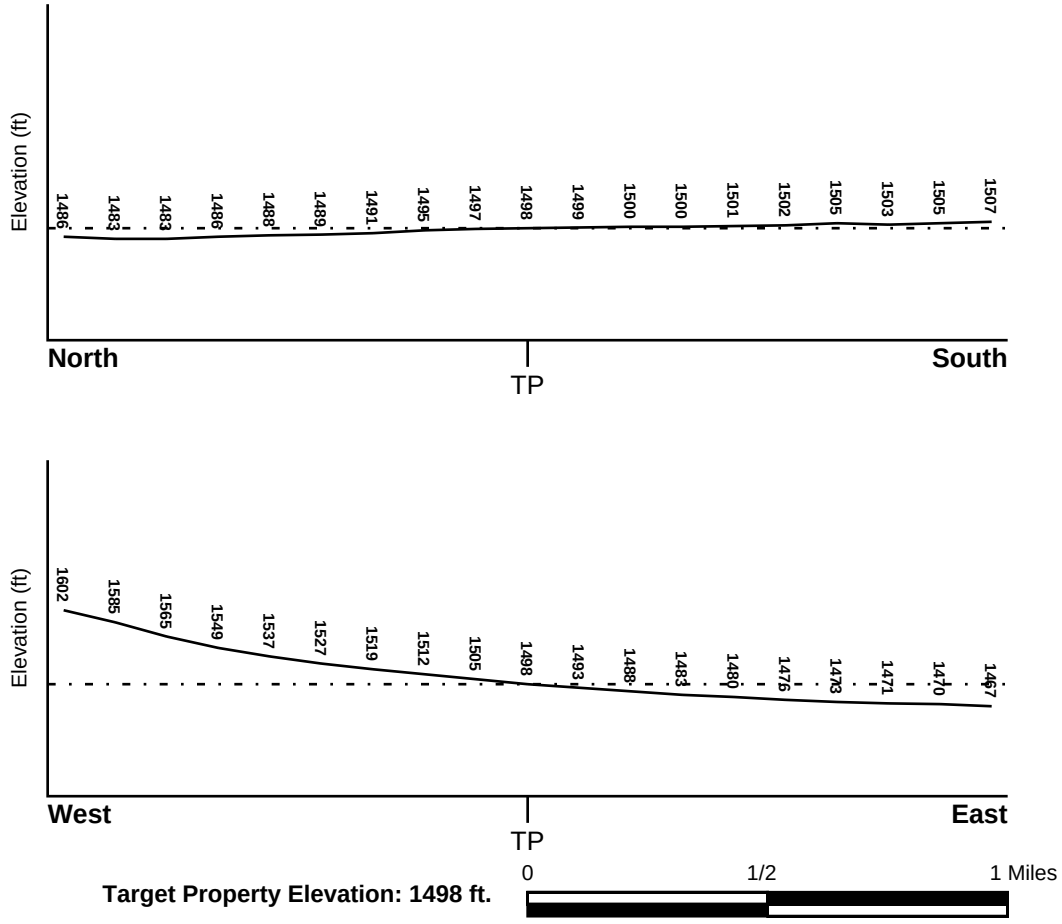
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General East

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' 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.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Flood Plain Panel at Target Property	FEMA Source Type
06065C1410G	FEMA FIRM Flood data

Additional Panels in search area:	FEMA Source Type
06065C1430H	FEMA FIRM Flood data

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
NOT AVAILABLE	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius:	1.25 miles
Status:	Not found

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
Not Reported		

* ©1996 Site−specific hydrogeological data gathered by CERCLIS Alerts, Inc., Bainbridge Island, WA. All rights reserved. All of the information and opinions presented are those of the cited EPA report(s), which were completed under a Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) investigation.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

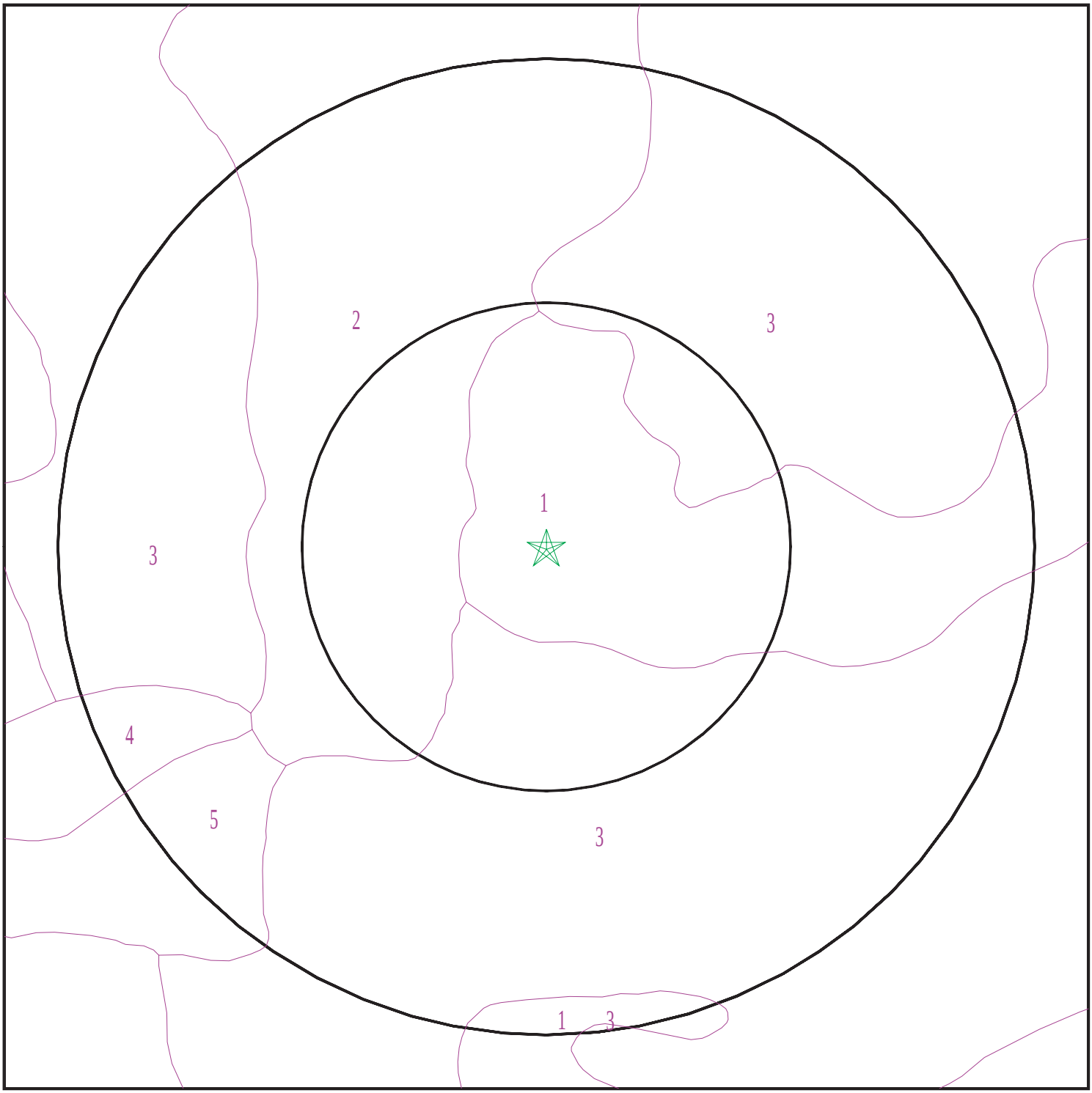
Era:	Mesozoic
System:	Cretaceous
Series:	Cretaceous granitic rocks
Code:	Kg *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Plutonic and Intrusive Rocks

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

SSURGO SOIL MAP - 6783188.2s



Target Property
SSURGO Soil
Water

0 1/16 1/8 1/4 Miles

N

SITE NAME:	Duke - Patterson Avenue	CLIENT:	APEX Environmental
ADDRESS:	Patterson Avenue Perris CA 92571	CONTACT:	Tania Cowden
LAT/LONG:	33.854856 / 117.252128	INQUIRY #:	6783188.2s
		DATE:	December 09, 2021 6:05 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: PACHAPPA

Soil Surface Texture: fine sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	20 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14 Min: 4	Max: 7.8 Min: 6.6
2	20 inches	62 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14 Min: 4	Max: 7.8 Min: 6.6

Soil Map ID: 2

Soil Component Name: GREENFIELD

Soil Surface Texture: sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	25 inches	sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 8.4 Min: 6.6
2	25 inches	42 inches	fine sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 8.4 Min: 6.6
3	42 inches	59 inches	loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 8.4 Min: 6.6
4	59 inches	72 inches	stratified loamy sand to sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 8.4 Min: 6.6

Soil Map ID: 3

Soil Component Name: RAMONA

Soil Surface Texture: sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information

	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	14 inches	sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 4 Min: 1.4	Max: 8.4 Min: 6.6
2	14 inches	22 inches	fine sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 4 Min: 1.4	Max: 8.4 Min: 6.6
3	22 inches	68 inches	sandy clay loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 4 Min: 1.4	Max: 8.4 Min: 6.6
4	68 inches	74 inches	gravelly sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 4 Min: 1.4	Max: 8.4 Min: 6.6

Soil Map ID: 4

Soil Component Name: HANFORD

Soil Surface Texture: coarse sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	7 inches	coarse sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 7.8 Min: 5.6
2	7 inches	40 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 7.8 Min: 5.6
3	40 inches	59 inches	stratified loamy sand to coarse sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 7.8 Min: 5.6

Soil Map ID: 5

Soil Component Name: GREENFIELD

Soil Surface Texture: sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	25 inches	sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 8.4 Min: 6.6
2	25 inches	42 inches	fine sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 8.4 Min: 6.6
3	42 inches	59 inches	loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 8.4 Min: 6.6
4	59 inches	72 inches	stratified loamy sand to sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 8.4 Min: 6.6

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
A2	USGS40000138614	1/8 - 1/4 Mile East
B7	USGS40000138620	1/4 - 1/2 Mile ENE
E41	USGS40000138615	1/2 - 1 Mile East

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

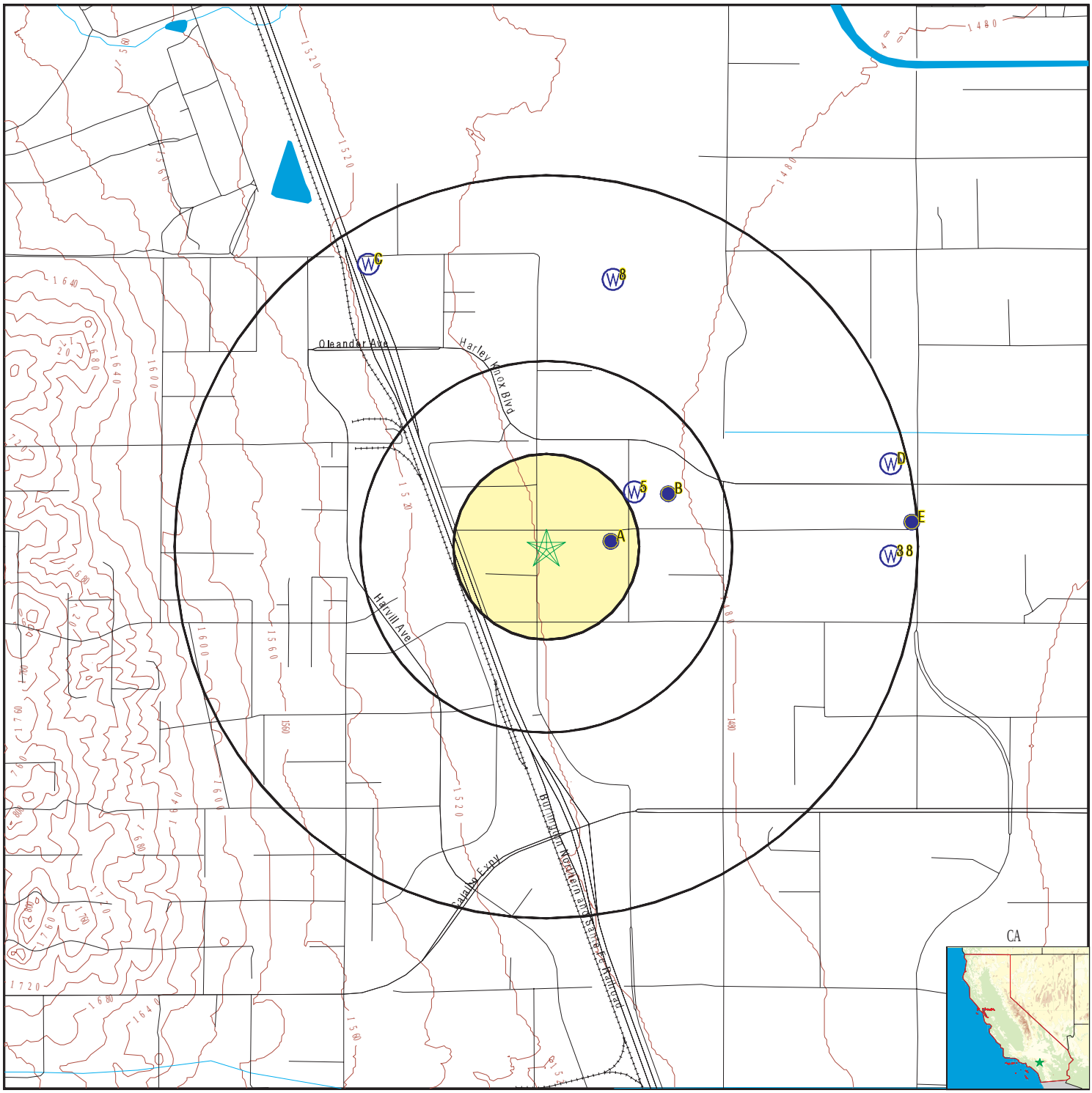
MAP ID	WELL ID	LOCATION FROM TP
A1	CAUSGSN00002987	1/8 - 1/4 Mile East
A3	CADWR0000037413	1/8 - 1/4 Mile East
A4	CADWR9000005902	1/8 - 1/4 Mile East
5	CADWR9000005915	1/4 - 1/2 Mile ENE
B6	CAUSGSN00003468	1/4 - 1/2 Mile ENE
8	CADWR0000027443	1/2 - 1 Mile NNE
C9	CAEDF0000022393	1/2 - 1 Mile NNW
C10	CAEDF0000043356	1/2 - 1 Mile NNW
C11	CAEDF0000115797	1/2 - 1 Mile NNW
C12	CAEDF0000118926	1/2 - 1 Mile NNW
C13	CAEDF0000031052	1/2 - 1 Mile NNW
C14	CAEDF0000048298	1/2 - 1 Mile NNW
C15	CAEDF0000108797	1/2 - 1 Mile NNW
C16	CAEDF0000097222	1/2 - 1 Mile NNW
C17	CAEDF0000133212	1/2 - 1 Mile NNW
C18	CAEDF0000080414	1/2 - 1 Mile NNW
C19	CAEDF0000035156	1/2 - 1 Mile NNW
C20	CAEDF0000040148	1/2 - 1 Mile NNW
C21	CAEDF0000005173	1/2 - 1 Mile NNW
C22	CAEDF0000061536	1/2 - 1 Mile NNW
C23	CAEDF0000129092	1/2 - 1 Mile NNW
C24	CAEDF0000117529	1/2 - 1 Mile NNW
C25	CAEDF0000092047	1/2 - 1 Mile NNW
C26	CAEDF0000119358	1/2 - 1 Mile NNW
C27	CAEDF0000085382	1/2 - 1 Mile NNW
C28	CAEDF0000072358	1/2 - 1 Mile NNW
C29	CAEDF0000100210	1/2 - 1 Mile NNW
C30	CAEDF0000000743	1/2 - 1 Mile NNW
C31	CAEDF0000073962	1/2 - 1 Mile NNW
C32	CAEDF0000012342	1/2 - 1 Mile NNW
C33	CAEDF0000133677	1/2 - 1 Mile NNW
C34	CAEDF0000096670	1/2 - 1 Mile NNW
C35	CAEDF0000019985	1/2 - 1 Mile NNW
C36	CAEDF0000076742	1/2 - 1 Mile NNW

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
C37	CAEDF0000132144	1/2 - 1 Mile NNW
38	CADWR0000029072	1/2 - 1 Mile East
D39	CADWR0000025427	1/2 - 1 Mile ENE
D40	CADWR0000017765	1/2 - 1 Mile ENE
E42	CAUSGSN00010020	1/2 - 1 Mile East

PHYSICAL SETTING SOURCE MAP - 6783188.2s



- County Boundary
- Major Roads
- Contour Lines
- Earthquake Fault Lines
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons
- Groundwater Flow Direction
- GI Indeterminate Groundwater Flow at Location
- GV Groundwater Flow Varies at Location
- HD Closest Hydrogeological Data
- Oil, gas or related wells

SITE NAME:	Duke - Patterson Avenue	CLIENT:	APEX Environmental
ADDRESS:	Patterson Avenue Perris CA 92571	CONTACT:	Tania Cowden
		INQUIRY #:	6783188.2s
LAT/LONG:	33.854856 / 117.252128	DATE:	December 09, 2021 6:05 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

A1
East
1/8 - 1/4 Mile
Lower

CA WELLS **CAUSGSN00002987**

Well ID:	USGS-335119117145401	Well Type:	UNK
Source:	United States Geological Survey		
Other Name:	USGS-335119117145401	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=USGSNEW&samp_date=&global_id=&assigned_name=USGS-335119117145401&store_num=		
GeoTracker Data:	Not Reported		

A2
East
1/8 - 1/4 Mile
Lower

FED USGS **USGS40000138614**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	004S004W01G001S	Type:	Well
Description:	Not Reported	HUC:	18070202
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	Not Reported
Well Depth Units:	Not Reported	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

A3
East
1/8 - 1/4 Mile
Lower

CA WELLS **CADWR0000037413**

Well ID:	04S04W01G001S	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	04S04W01G001S	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=04S04W01G001S&store_num=		
GeoTracker Data:	Not Reported		

A4
East
1/8 - 1/4 Mile
Lower

CA WELLS **CADWR9000005902**

State Well #:	Not Reported	Station ID:	48247
Well Name:	EMWD12474	Basin Name:	San Jacinto
Well Use:	Irrigation	Well Type:	Single Well
Well Depth:	0	Well Completion Rpt #:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

5
ENE
1/4 - 1/2 Mile
Lower

CA WELLS **CADWR9000005915**

State Well #:	Not Reported	Station ID:	48246
Well Name:	EMWD12471	Basin Name:	San Jacinto
Well Use:	Irrigation	Well Type:	Single Well
Well Depth:	0	Well Completion Rpt #:	Not Reported

B6
ENE
1/4 - 1/2 Mile
Lower

CA WELLS **CAUSGSN00003468**

Well ID:	USGS-335125117144401	Well Type:	UNK
Source:	United States Geological Survey		
Other Name:	USGS-335125117144401	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=USGSNEW&samp_date=&global_id=&assigned_name=USGS-335125117144401&store_num=		
GeoTracker Data:	Not Reported		

B7
ENE
1/4 - 1/2 Mile
Lower

FED USGS **USGS40000138620**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	004S004W01A001S	Type:	Well
Description:	Not Reported	HUC:	18070202
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	Not Reported
Well Depth Units:	Not Reported	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

8
NNE
1/2 - 1 Mile
Lower

CA WELLS **CADWR0000027443**

Well ID:	03S04W36K001S	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	03S04W36K001S	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=03S04W36K001S&store_num=		
GeoTracker Data:	Not Reported		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

C9
NNW
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000022393**

Well ID:	T0606500307-MW13	Well Type:	MONITORING
Source:	EDF	Other Name:	MW13
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0606500307&assigned_name=MW13&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0606500307&assigned_name=MW13		

C10
NNW
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000043356**

Well ID:	T0606500307-MW 7	Well Type:	MONITORING
Source:	EDF	Other Name:	MW 7
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0606500307&assigned_name=MW 7&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0606500307&assigned_name=MW 7		

C11
NNW
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000115797**

Well ID:	T0606500307-MW7	Well Type:	MONITORING
Source:	EDF	Other Name:	MW7
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0606500307&assigned_name=MW7&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0606500307&assigned_name=MW7		

C12
NNW
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000118926**

Well ID:	T0606500307-MW11	Well Type:	MONITORING
Source:	EDF	Other Name:	MW11
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0606500307&assigned_name=MW11&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0606500307&assigned_name=MW11		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

C13
NNW
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000031052**

Well ID:	T0606500307-MW 11	Well Type:	MONITORING
Source:	EDF	Other Name:	MW 11
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0606500307&assigned_name=MW 11&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0606500307&assigned_name=MW 11		

C14
NNW
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000048298**

Well ID:	T0606500307-MW5	Well Type:	MONITORING
Source:	EDF	Other Name:	MW5
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0606500307&assigned_name=MW5&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0606500307&assigned_name=MW5		

C15
NNW
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000108797**

Well ID:	T0606500307-MW 5	Well Type:	MONITORING
Source:	EDF	Other Name:	MW 5
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0606500307&assigned_name=MW 5&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0606500307&assigned_name=MW 5		

C16
NNW
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000097222**

Well ID:	T0606500307-MW6	Well Type:	MONITORING
Source:	EDF	Other Name:	MW6
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0606500307&assigned_name=MW6&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0606500307&assigned_name=MW6		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

C17
NNW
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000133212**

Well ID:	T0606500307-MW 6	Well Type:	MONITORING
Source:	EDF	Other Name:	MW 6
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0606500307&assigned_name=MW 6&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0606500307&assigned_name=MW 6		

C18
NNW
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000080414**

Well ID:	T0606500307-MW 12	Well Type:	MONITORING
Source:	EDF	Other Name:	MW 12
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0606500307&assigned_name=MW 12&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0606500307&assigned_name=MW 12		

C19
NNW
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000035156**

Well ID:	T0606500307-MW12	Well Type:	MONITORING
Source:	EDF	Other Name:	MW12
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0606500307&assigned_name=MW12&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0606500307&assigned_name=MW12		

C20
NNW
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000040148**

Well ID:	T0606500307-DPE2	Well Type:	MONITORING
Source:	EDF	Other Name:	DPE2
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0606500307&assigned_name=DPE2&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0606500307&assigned_name=DPE2		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

C21
NNW
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000005173**

Well ID:	T0606500307-DPE3	Well Type:	MONITORING
Source:	EDF	Other Name:	DPE3
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0606500307&assigned_name=DPE3&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0606500307&assigned_name=DPE3		

C22
NNW
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000061536**

Well ID:	T0606500307-MW2	Well Type:	MONITORING
Source:	EDF	Other Name:	MW2
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0606500307&assigned_name=MW2&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0606500307&assigned_name=MW2		

C23
NNW
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000129092**

Well ID:	T0606500307-DPE6	Well Type:	MONITORING
Source:	EDF	Other Name:	DPE6
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0606500307&assigned_name=DPE6&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0606500307&assigned_name=DPE6		

C24
NNW
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000117529**

Well ID:	T0606500307-MW 2	Well Type:	MONITORING
Source:	EDF	Other Name:	MW 2
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0606500307&assigned_name=MW 2&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0606500307&assigned_name=MW 2		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

C25
NNW
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000092047**

Well ID:	T0606500307-MW 10	Well Type:	MONITORING
Source:	EDF	Other Name:	MW 10
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0606500307&assigned_name=MW 10&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0606500307&assigned_name=MW 10		

C26
NNW
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000119358**

Well ID:	T0606500307-MW10	Well Type:	MONITORING
Source:	EDF	Other Name:	MW10
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0606500307&assigned_name=MW10&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0606500307&assigned_name=MW10		

C27
NNW
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000085382**

Well ID:	T0606500307-DPE1	Well Type:	MONITORING
Source:	EDF	Other Name:	DPE1
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0606500307&assigned_name=DPE1&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0606500307&assigned_name=DPE1		

C28
NNW
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000072358**

Well ID:	T0606500307-MW 3	Well Type:	MONITORING
Source:	EDF	Other Name:	MW 3
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0606500307&assigned_name=MW 3&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0606500307&assigned_name=MW 3		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

C29
NNW
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000100210**

Well ID:	T0606500307-MW3	Well Type:	MONITORING
Source:	EDF	Other Name:	MW3
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0606500307&assigned_name=MW3&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0606500307&assigned_name=MW3		

C30
NNW
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000000743**

Well ID:	T0606500307-DPE5	Well Type:	MONITORING
Source:	EDF	Other Name:	DPE5
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0606500307&assigned_name=DPE5&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0606500307&assigned_name=DPE5		

C31
NNW
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000073962**

Well ID:	T0606500307-DPE4	Well Type:	MONITORING
Source:	EDF	Other Name:	DPE4
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0606500307&assigned_name=DPE4&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0606500307&assigned_name=DPE4		

C32
NNW
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000012342**

Well ID:	T0606500307-MW 8	Well Type:	MONITORING
Source:	EDF	Other Name:	MW 8
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0606500307&assigned_name=MW 8&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0606500307&assigned_name=MW 8		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

C33
NNW
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000133677**

Well ID:	T0606500307-MW 1	Well Type:	MONITORING
Source:	EDF	Other Name:	MW 1
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0606500307&assigned_name=MW 1&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0606500307&assigned_name=MW 1		

C34
NNW
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000096670**

Well ID:	T0606500307-MW1	Well Type:	MONITORING
Source:	EDF	Other Name:	MW1
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0606500307&assigned_name=MW1&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0606500307&assigned_name=MW1		

C35
NNW
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000019985**

Well ID:	T0606500307-MW 4	Well Type:	MONITORING
Source:	EDF	Other Name:	MW 4
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0606500307&assigned_name=MW 4&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0606500307&assigned_name=MW 4		

C36
NNW
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000076742**

Well ID:	T0606500307-MW9	Well Type:	MONITORING
Source:	EDF	Other Name:	MW9
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0606500307&assigned_name=MW9&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0606500307&assigned_name=MW9		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

C37
NNW
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000132144**

Well ID:	T0606500307-MW 9	Well Type:	MONITORING
Source:	EDF	Other Name:	MW 9
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0606500307&assigned_name=MW 9&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0606500307&assigned_name=MW 9		

38
East
1/2 - 1 Mile
Lower

CA WELLS **CADWR0000029072**

Well ID:	04S03W06F001S	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	04S03W06F001S	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=04S03W06F001S&store_num=		
GeoTracker Data:	Not Reported		

D39
ENE
1/2 - 1 Mile
Lower

CA WELLS **CADWR0000025427**

Well ID:	04S03W06C002S	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	04S03W06C002S	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=04S03W06C002S&store_num=		
GeoTracker Data:	Not Reported		

D40
ENE
1/2 - 1 Mile
Lower

CA WELLS **CADWR0000017765**

Well ID:	04S03W06C001S	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	04S03W06C001S	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=04S03W06C001S&store_num=		
GeoTracker Data:	Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

E41
East
1/2 - 1 Mile
Lower

FED USGS **USGS40000138615**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	004S003W06C001S	Type:	Well
Description:	Not Reported	HUC:	18070202
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	Not Reported
Well Depth Units:	Not Reported	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

E42
East
1/2 - 1 Mile
Lower

CA WELLS **CAUSGSN00010020**

Well ID:	USGS-335121117140301	Well Type:	UNK
Source:	United States Geological Survey		
Other Name:	USGS-335121117140301	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=USGSNEW&samp_date=&global_id=&assigned_name=USGS-335121117140301&store_num=		
GeoTracker Data:	Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: CA Radon

Radon Test Results

Zipcode	Num Tests	> 4 pCi/L
92571	1	0

Federal EPA Radon Zone for RIVERSIDE County: 2

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for RIVERSIDE COUNTY, CA

Number of sites tested: 12

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.117 pCi/L	100%	0%	0%
Living Area - 2nd Floor	0.450 pCi/L	100%	0%	0%
Basement	1.700 pCi/L	100%	0%	0%

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

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

HYDROGEOLOGIC INFORMATION

AQUIFLOW^{R} Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

OTHER STATE DATABASE INFORMATION

Groundwater Ambient Monitoring & Assessment Program
State Water Resources Control Board
Telephone: 916-341-5577
The GAMA Program is Californias comprehensive groundwater quality monitoring program. GAMA collects data by testing the untreated, raw water in different types of wells for naturally-occurring and man-made chemicals. The GAMA data includes Domestic, Monitoring and Municipal well types from the following sources, Department of Water Resources, Department of Heath Services, EDF, Agricultural Lands, Lawrence Livermore National Laboratory, Department of Pesticide Regulation, United States Geological Survey, Groundwater Ambient Monitoring and Assessment Program and Local Groundwater Projects.

Water Well Database
Source: Department of Water Resources
Telephone: 916-651-9648

California Drinking Water Quality Database
Source: Department of Public Health
Telephone: 916-324-2319
The database includes all drinking water compliance and special studies monitoring for the state of California since 1984. It consists of over 3,200,000 individual analyses along with well and water system information.

California Oil and Gas Well Locations
Source: Dept of Conservation, Geologic Energy Management Division
Telephone: 916-323-1779
Oil and Gas well locations in the state.

California Earthquake Fault Lines
Source: California Division of Mines and Geology
The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

RADON

State Database: CA Radon
Source: Department of Public Health
Telephone: 916-210-8558
Radon Database for California

PHYSICAL SETTING SOURCE RECORDS SEARCHED

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

STREET AND ADDRESS INFORMATION

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APPENDIX C

ENVIRONMENTAL LIENS AND ACTIVITY USE LIMITATIONS REPORT

Duke - Patterson Expansion
Not Reported
Perris, CA 92571

Inquiry Number: 6641725.7
September 01, 2021

EDR Environmental Lien and AUL Search

EDR® Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

EDR Environmental Lien and AUL Search

The EDR Environmental Lien and AUL Search Report provides results from a search of available current land title records for environmental cleanup liens and other activity and use limitations, such as engineering controls and institutional controls.

A network of professional, trained researchers, following established procedures, uses client supplied address information to:

- search for parcel information and/or legal description;
- search for ownership information;
- research official land title documents recorded at jurisdictional agencies such as recorders' offices, registries of deeds, county clerks' offices, etc.;
- access a copy of the deed;
- search for environmental encumbering instrument(s) associated with the deed;
- provide a copy of any environmental encumbrance(s) based upon a review of key words in the instrument(s) (title, parties involved, and description); and
- provide a copy of the deed or cite documents reviewed.

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EDR Environmental Lien and AUL Search

TARGET PROPERTY INFORMATION

ADDRESS

Not Reported
Duke - Patterson Expansion
Perris, CA 92571

ENVIRONMENTAL LIEN

Environmental Lien: Found ☐ Not Found ☒

OTHER ACTIVITY AND USE LIMITATIONS (AULs)

AULs: Found ☐ Not Found ☒

RESEARCH SOURCE

Source 1:

Riverside Recorder
Riverside, CA

PROPERTY INFORMATION

Deed 1:

Type of Deed:	deed
Title is vested in:	Duke Realty Patterson LP
Title received from:	Linkup LLC
Deed Dated	1/8/2021
Deed Recorded:	1/13/2021
Book:	NA
Page:	na
Volume:	na
Instrument:	na
Docket:	NA
Land Record Comments:	
Miscellaneous Comments:	
Legal Description:	See Exhibit
Legal Current Owner:	Duke Realty Patterson LP
Parcel # / Property Identifier:	314-153-015 thru 018, 314-153-022 thru 29, 314153-033 thru 40, 314-153-042
Comments:	See Exhibit

Deed 2:

Type of Deed:	deed
Title is vested in:	Duke Realty Patterson LP
Title received from:	Robert A& Joan K Gibel Trustees
Deed Dated	1/8/2021
Deed Recorded:	1/13/2021
Book:	NA
Page:	na
Volume:	na
Instrument:	na
Docket:	NA
Land Record Comments:	
Miscellaneous Comments:	
Legal Description:	See Exhibit
Legal Current Owner:	Duke Realty Patterson LP
Parcel # / Property Identifier:	314-153-019 thru 021
Comments:	See Exhibit

Deed 3:

Type of Deed:	deed
Title is vested in:	Duke Realty Patterson LP
Title received from:	Bernardita Pascual
Deed Dated	4/19/2021

Deed Recorded:	4/22/2021
Book:	NA
Page:	na
Volume:	na
Instrument:	na
Docket:	NA
Land Record Comments:	
Miscellaneous Comments:	
Legal Description:	See Exhibit
Legal Current Owner:	Duke Realty Patterson LP
Parcel # / Property Identifier:	314-153-044, 314-153-046
Comments:	See Exhibit

Deed 4:

Type of Deed:	deed
Title is vested in:	Duke Realty Patterson LP
Title received from:	Lilly E Deng
Deed Dated	4/20/2021
Deed Recorded:	4/22/2021
Book:	NA
Page:	na
Volume:	na
Instrument:	na
Docket:	NA
Land Record Comments:	
Miscellaneous Comments:	
Legal Description:	See Exhibit
Legal Current Owner:	Duke Realty Patterson LP
Parcel # / Property Identifier:	314-153-030
Comments:	See Exhibit

Deed 5:

Type of Deed:	deed
Title is vested in:	Duke Realty Patterson LP
Title received from:	Melanie AConnell
Deed Dated	4/7/2021
Deed Recorded:	4/21/2021
Book:	NA
Page:	na
Volume:	na
Instrument:	na
Docket:	NA
Land Record Comments:	

Miscellaneous Comments:

Legal Description: See Exhibit

Legal Current Owner: Duke Realty Patterson LP

Parcel # / Property Identifier: 314-153-031

Comments: See Exhibit

Deed 6:

Type of Deed: deed
Title is vested in: Duke Realty Patterson LP
Title received from: Geoffrey M K Bonny castle Jia Lu
Deed Dated 1/8/2021
Deed Recorded: 1/13/2021
Book: NA
Page: na
Volume: na
Instrument: na
Docket: NA
Land Record Comments:
Miscellaneous Comments:

Legal Description: See Exhibit

Legal Current Owner: Duke Realty Patterson LP

Parcel # / Property Identifier: 314-153-032

Comments: See Exhibit

Deed 7:

Type of Deed: deed
Title is vested in: Duke Realty Patterson LP
Title received from: Susan Burnside Trustee etal
Deed Dated 4/6/2021
Deed Recorded: 5/5/2021
Book: NA
Page: na
Volume: na
Instrument: na
Docket: NA
Land Record Comments:
Miscellaneous Comments:

Legal Description: See Exhibit

Legal Current Owner: Duke Realty Patterson LP

Parcel # / Property Identifier: 314-153-048

Comments: See Exhibit

Deed 8:

Type of Deed:	deed
Title is vested in:	Chin Yen Hung Trustee
Title received from:	Chin Yen Hung
Deed Dated	3/31/2008
Deed Recorded:	2/26/2009
Book:	NA
Page:	na
Volume:	na
Instrument:	na
Docket:	NA
Land Record Comments:	
Miscellaneous Comments:	

Legal Description: See Exhibit

Legal Current Owner: Chin Yen Hung Trustee

Parcel # / Property Identifier: 314-160-005

Comments: See Exhibit

Deed 9:

Type of Deed:	deed
Title is vested in:	GNA Realty LLC
Title received from:	Velur Land Investments Inc
Deed Dated	4/13/2004
Deed Recorded:	5/6/2004
Book:	NA
Page:	na
Volume:	na
Instrument:	na
Docket:	NA
Land Record Comments:	
Miscellaneous Comments:	

Legal Description: See Exhibit

Legal Current Owner: GNA Reallty LLC

Parcel # / Property Identifier: 314-160-006

Comments: See Exhibit

Deed 10:

Type of Deed:	deed
Title is vested in:	Hsiu Mei Yang
Title received from:	Velur Land Investments Inc
Deed Dated	4/16/2004

Deed Recorded:	5/13/2004
Book:	NA
Page:	na
Volume:	na
Instrument:	na
Docket:	NA
Land Record Comments:	
Miscellaneous Comments:	
Legal Description:	See Exhibit
Legal Current Owner:	Hsiu Mei Yang
Parcel # / Property Identifier:	314-160-007
Comments:	See Exhibit

Deed 11:

Type of Deed:	deed
Title is vested in:	Jun & Toshiko Yokota Kensuke Daniel Yokota
Title received from:	Velur Land Investments Inc
Deed Dated	4/13/2004
Deed Recorded:	5/3/2004
Book:	NA
Page:	na
Volume:	na
Instrument:	na
Docket:	NA
Land Record Comments:	
Miscellaneous Comments:	
Legal Description:	See Exhibit
Legal Current Owner:	Jun & Toshiko Yokota Kensuke Daniel Yokota
Parcel # / Property Identifier:	314-160-008
Comments:	See Exhibit

Deed 12:

Type of Deed:	deed
Title is vested in:	Roger Gill
Title received from:	Won Kyun Moon
Deed Dated	9/24/2019
Deed Recorded:	10/5/2019
Book:	NA
Page:	na
Volume:	na
Instrument:	na
Docket:	NA
Land Record Comments:	

Miscellaneous Comments:

Legal Description: See Exhibit

Legal Current Owner: Roger Gill

Parcel # / Property Identifier: 314-160-009

Comments: See Exhibit

Deed 13:

Type of Deed: deed
Title is vested in: Feng Mei Ruin Di Wang
Title received from: Velur Land Investments LLC
Deed Dated 4/1/2004
Deed Recorded: 4/20/2004
Book: NA
Page: na
Volume: na
Instrument: na
Docket: NA
Land Record Comments:
Miscellaneous Comments:

Legal Description: See Exhibit

Legal Current Owner: Feng Mei Ruan Di Wang

Parcel # / Property Identifier: 314-160-010

Comments: See Exhibit

Deed 14:

Type of Deed: deed
Title is vested in: Armando & Maria E Lovera Jesus & Maricela Mendoza
Title received from: Armando Lovera Jesus Mendoza
Deed Dated 11/1/2007
Deed Recorded: 12/4/2007
Book: na
Page: na
Volume: NA
Instrument: na
Docket: NA
Land Record Comments:
Miscellaneous Comments:

Legal Description: See Exhibit

Legal Current Owner: Armando & Maria E Lovera Jesus & Maricela Mendoza

Parcel # / Property Identifier: 314-160-011

Comments: See Exhibit

Deed 15:

Type of Deed:	deed
Title is vested in:	Lucia Deng
Title received from:	Zie Zhang
Deed Dated	5/14/2021
Deed Recorded:	6/9/2021
Book:	NA
Page:	na
Volume:	na
Instrument:	na
Docket:	NA
Land Record Comments:	
Miscellaneous Comments:	

Legal Description: See Exhibit

Legal Current Owner: Lucia Deng

Parcel # / Property Identifier: 314-160-012

Comments: See Exhibit

Deed Exhibit 1

DOC # 2021-0021360
01/13/2021 08:00 AM Fees: $26.00
Page 1 of 5
Recorded in Official Records
County of Riverside
Peter Aldana
Assessor-County Clerk-Recorder

This document was electronically submitted to the County of Riverside for recording
Receipted by: MARIA #309

DTT approved by NB

RECORDING REQUESTED BY:
First American Title Company, National Commercial Services

AND WHEN RECORDED MAIL TO:
First American Title Insurance Company
Chicago National Commercial Services
30 North LaSalle Street, Suite 2700
Chicago, Illinois 60602
Attn: Melanie Watson

MAIL TAX STATEMENTS TO:
Duke Realty LP
c/o Real Estate Tax Advisors LLC
P.O. Box 40509
Indianapolis, IN 46240

THIS SPACE FOR RECORDER'S USE ONLY:

APN#: 314-153-015; 314-153-016; 314-153-017; 314-153-018; 314-153-022; 314-153-023; 314-153-024; 314-153-025; 314-153-026; 314-153-027; 314-153-028; 314-153-029; 314-153-033; 314-153-034; 314-153-035; 314-153-036; 314-153-037; 314-153-038; 314-153-039; 314-153-040; and 314-153-042

File No.: NCS-1039684

TRA 008-051

GRANT DEED

The Undersigned Grantor(s) Declare(s): DOCUMENTARY TRANSFER TAX $ 21,901.55 ; CITY TRANSFER TAX $_____;

[✓] computed on the consideration or full value of property conveyed, OR

[ ] computed on the consideration or full value less value of liens and/or encumbrances remaining at time of sale,

[ ] unincorporated area; [ ] City of Perris, and

EXEMPT FROM BUILDING HOMES AND JOBS ACTS FEE PER GOVERNMENT CODE 27388.1(a)(2)

FOR A VALUABLE CONSIDERATION, RECEIPT OF WHICH IS HEREBY ACKNOWLEDGED, **LINKUP LLC**, a California limited liability company (together, "Grantor"), hereby grants to **DUKE REALTY PATTERSON LP**, a Delaware limited partnership ("Grantee"), all of Grantor's right, title and interest in that certain real property in the City of Perris, County of Riverside County, State of California, as more particularly described in Exhibit "A" attached hereto and made a part hereof.

This Deed and the conveyance hereinabove set forth is executed by Grantor and accepted by Grantee subject to those matters set forth on Exhibit "B", incorporated by reference to this document, and apparent from an inspection or survey as of the date hereof.

DATED: January 8, 2021

PLEASE SEE PAGE TWO FOR GRANTOR'S SIGNATURE.

MAIL TAX STATEMENTS TO PARTY SHOWN BELOW; IF NO PARTY SHOWN, MAIL AS DIRECTED ABOVE:

GRANT DEED - PAGE TWO
GRANTOR SIGNATURE:

LINKUP LLC,
a California limited liability company

By: Chun Han
Name:
Title: Manager

[Notary acknowledgement on following page]

ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of ~~People's Republic of China~~ Municipality of Shanghai)
) SS:
County of Consulate General of the United States of America)

Tyrell Walker
Vice Consul
U.S. Consulate General Shanghai

On 18 DEC 2020, before me, _____,
(insert name of notary)

Notary Public, personally appeared Chun Han, who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument he executed the instrument on behalf of the _____.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____

(Seal)

American Consulate General
Shanghai, China

PRESIDENTIAL COMMISSIONS DO NOT EXPIRE

EXHIBIT "A"
LEGAL DESCRIPTION

The Land referred to herein below is situated in the City of Perris, County of Riverside, State of California, and is described as follows:

PARCEL A:
LOTS 13, 14, 15, 16 AND 17, BLOCK A OF GOLDEN VALLEY FARMS, IN THE CITY OF PERRIS, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, TOGETHER WITH THOSE PORTIONS OF CALIFORNIA STREET THAT WOULD PASS WITH A CONVEYANCE OF SAID LOT, AS PER MAP RECORDED IN BOOK 14 OF MAPS, PAGE 78, IN THE OFFICE OF THE COUNTY RECORDED OF SAID COUNTY.

EXCEPTING THOSE PORTIONS CONTAINED IN THE DEED TO THE UNITED STATES OF AMERICA RECORDED JANUARY 31, 1995 AS INSTRUMENT NO. 032244 IN THE RECORDS OF THE RIVERSIDE COUNTY RECORDER'S OFFICE.

PARCEL B:
LOTS 1, 2, 3, 4, 5, 6, 7, 8, 13, 14, 15, 16, 17, 18, 19 AND 20, BLOCK D OF GOLDEN VALLEY FARMS, IN THE CITY OF PERRIS, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, TOGETHER WITH THOSE PORTIONS OF CALIFORNIA STREET, NANCE STREET AND PATTERSON AVENUE THAT WOULD PASS WITH A CONVEYANCE OF SAID LOTS, AS PER MAP RECORDED IN BOOK 14 OF MAPS, PAGE 78, RECORDS OF RIVERSIDE COUNTY.

EXCEPTING THOSE PORTIONS CONTAINED IN THE DEED TO THE UNITED STATES OF AMERICA RECORDED JANUARY 31, 1995 AS INSTRUMENT NO. 032244 IN THE RECORDS OF THE RIVERSIDE COUNTY RECORDER'S OFFICE.

For conveyancing purposes only: APN 314-153-015 (Affects Lot 14 of Parcel A);
314-153-016 (Affects Lot 15 of Parcel A);
314-153-017 (Affects Lot 16 of Parcel A);
314-153-018 (Affects Lot 17 of Parcel A);
314-153-022 (Affects Lot 1 of Parcel B);
314-153-023 (Affects Lot 2 of Parcel B);
314-153-024 (Affects Lot 3 of Parcel B);
314-153-025 (Affects Lot 4 of Parcel B);
314-153-026 (Affects Lot 5 of Parcel B);
314-153-027 (Affects Lot 6 of Parcel B);
314-153-028 (Affects Lot 7 of Parcel B);
314-153-029 (Affects Lot 8 of Parcel B);
314-153-033 (Affects Lot 13 of Parcel B);
314-153-034 (Affects Lot 14 of Parcel B);
314-153-035 (Affects Lot 15 of Parcel B);
314-153-036 (Affects Lot 16 of Parcel B);
314-153-037 (Affects Lot 17 of Parcel B);
314-153-038 (Affects Lot 18 of Parcel B);
314-153-039 (Affects Lot 19 of Parcel B);
314-153-040 (Affects Lot 20 of Parcel B); and
314-153-042 (Affects Lot 13 of Parcel A)

EXHIBIT "B"

PERMITTED EXCEPTIONS

1. General and special taxes and assessments for the fiscal year 2020 - 2021, a lien not yet due or payable. Second installment

2. The lien of supplemental taxes, if any, assessed pursuant to Chapter 3.5 commencing with Section 75 of the California Revenue and Taxation Code.

3. Water rights, claims or title to water, whether or not shown by the public records.
4. An easement for pipe lines and incidental purposes, recorded December 14, 1923 in Book 589 of Deeds, Page 504.

5. Covenants, conditions and restrictions and the reservation of blanket easements for the conveyance of water, common to said tract, as set forth in the Deed recorded June 7, 1933, in Book 126, Page 96, Official Records, and other Deeds of record.

6. Covenants, conditions, restrictions and easements in the document recorded October 23, 1933 as Instrument No. 885 in Book 144 Page 217 of Official Records, but deleting any covenant, condition or restriction indicating a preference, limitation or discrimination based on race, color, religion, sex, handicap, familial status, national origin, sexual orientation, marital status, ancestry, source of income or disability, to the extent such covenants, conditions or restrictions violate Title 42, Section 3604(c), of the United States Codes. Lawful restrictions under state and federal law on the age of occupants in senior housing or housing for older persons shall not be construed as restrictions based on familial status.

7. Covenants, conditions, restrictions and easements in the document recorded January 08, 1937 as Instrument No. 370 of Official Records, but deleting any covenant, condition or restriction indicating a preference, limitation or discrimination based on race, color, religion, sex, handicap, familial status, national origin, sexual orientation, marital status, ancestry, source of income or disability, to the extent such covenants, conditions or restrictions violate Title 42, Section 604(c), of the United States Codes. Lawful restrictions under state and federal law on the age of occupants in senior housing or housing for older persons shall not be construed as restrictions based on familial status.

8. The effect of a map purporting to show the land and other property, filed Book 134 Page 48 through 50 of Record of Surveys.

Deed Exhibit 2

DOC # 2021-0021313
01/13/2021 08:00 AM Fees: $29.00
Page 1 of 6
Recorded in Official Records
County of Riverside
Peter Aldana
Assessor-County Clerk-Recorder

This document was electronically submitted to the County of Riverside for recording
Receipted by: MARIA #309

RECORDING REQUESTED BY:
First American Title Company, National Commercial Services

AND WHEN RECORDED MAIL TO:
First American Title Insurance Company
Chicago National Commercial Services
30 North LaSalle Street, Suite 2700
Chicago, Illinois 60602
Attn: Melanie Watson

MAIL TAX STATEMENTS TO:
Duke Realty LP
c/o Real Estate Tax Advisors LLC
P.O. Box 40509
Indianapolis, IN 46240

THIS SPACE FOR RECORDER'S USE ONLY:

APN#: 314-153-019; 314-153-020; and 314-153-021 **File No.: NCS-1039685**

TRA 008-051

GRANT DEED

The Undersigned Grantor(s) Declare(s): DOCUMENTARY TRANSFER TAX $ 3,157.00 ; CITY TRANSFER TAX $ _____ ;

[ ] computed on the consideration or full value of property conveyed, OR

[ ] computed on the consideration or full value less value of liens and/or encumbrances remaining at time of sale,

[ ] unincorporated area; [ ] City of Perris, and

EXEMPT FROM BUILDING HOMES AND JOBS ACTS FEE PER GOVERNMENT CODE 27388.1(a)(2)

FOR A VALUABLE CONSIDERATION, RECEIPT OF WHICH IS HEREBY ACKNOWLEDGED, **ROBERT A. GIBEL & JOAN K. GIBEL**, Trustees of The Gibel Family Trust dated August 5, 2004 (together, "Grantor"), hereby grants to **DUKE REALTY PATTERSON LP**, a Delaware limited partnership ("Grantee"), all of Grantor's right, title and interest in that certain real property in the City of Perris, County of Riverside County, State of California, as more particularly described in Exhibit "A" attached hereto and made a part hereof.

This Deed and the conveyance hereinabove set forth is executed by Grantor and accepted by Grantee subject to those matters set forth on Exhibit "B", incorporated by reference to this document, and apparent from an inspection or survey as of the date hereof.

DATED: January 8, 2021

PLEASE SEE PAGE TWO FOR GRANTOR'S SIGNATURE.

MAIL TAX STATEMENTS TO PARTY SHOWN BELOW; IF NO PARTY SHOWN, MAIL AS DIRECTED ABOVE:

GRANT DEED - PAGE TWO
GRANTOR SIGNATURE:

Trustee

Robert A. Gibel, Trustee of The Gibel Family Trust dated August 5, 2004

Joan K. Gibel, Trustee

Joan K. Gibel, Trustee, Trustee of The Gibel Family Trust dated August 5, 2004

[Notary acknowledgement on following page]

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California
County of San Diego

On Dec 31, 2020 before me, Robert Giramma
Notary Public, personally appeared Robert Allen Gibel, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal:

Signature _____ (Seal)

ROBERT GIRAMMA
Commission No. 2237178
NOTARY PUBLIC - CALIFORNIA
SAN DIEGO COUNTY
Commission Expires April 7, 2022

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California
County of San Diego

On Dec 31, 2020 before me, Robert Giramma, Notary Public, personally appeared Joan Kathleen Gibel, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____ (Seal)

ROBERT GIRAMMA
Commission No. 2237178
NOTARY PUBLIC - CALIFORNIA
SAN DIEGO COUNTY
Commission Expires April 7, 2022

EXHIBIT "A"
LEGAL DESCRIPTION

The Land referred to herein below is situated in the City of Perris, County of Riverside, State of California and is described as follows:

LOTS 18, 19 AND 20 IN BLOCK "A" OF GOLDEN VALLEY FARMS, IN THE CITY OF PERRIS, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, TOGETHER WITH THOSE PORTIONS OF CALIFORNIA STREET THAT WOULD PASS WITH A CONVEYANCE OF SAID LOTS, AS PER MAP RECORDED IN BOOK 14,
PAGE 78 OF MAPS, RECORDS OF RIVERSIDE COUNTY

For conveyancing purposes only:
APN(S) 314-153-019(Affects Lot 18), 314-153-020(Affects Lot 19) and 314-153-021(Affects Lot 20)

EXHIBIT "B"

PERMITTED EXCEPTIONS

1. General and special taxes and assessments for the fiscal year 2020-2012 Second Installment, a lien not yet due or payable.

2. The lien of supplemental taxes, if any, assessed pursuant to Chapter 3.5 commencing with Section 75 of the California Revenue and Taxation Code.

3. Water rights, claims or title to water, whether or not shown by the public records.

4. An easement for pipe lines and incidental purposes, recorded December 14, 1923 in Book 589 of Deeds, Page 504.

5. The terms and provisions contained in the document entitled "Notice High Water Pressure Condition" recorded December 21, 2005 as Instrument No. 2005-1053605 of Official Records.

Deed Exhibit 3

DOC # 2021-0249921
04/22/2021 08:00 AM Fees: $26.00
Page 1 of 5
Recorded in Official Records
County of Riverside
Peter Aldana
Assessor-County Clerk-Recorder

RECORDING REQUESTED BY:
First American Title Company, National Commercial Services

AND WHEN RECORDED MAIL TO:
First American Title Insurance Company
Chicago National Commercial Services
30 North LaSalle Street, Suite 2700
Chicago, Illinois 60602
Attn: Melanie Watson

MAIL TAX STATEMENTS TO:
Duke Realty LP
c/o Real Estate Tax Advisors LLC
P.O. Box 40509
Indianapolis, IN 46240

This document was electronically submitted to the County of Riverside for recording
Receipted by: TONI #642

THIS SPACE FOR RECORDER'S USE ONLY:

APN#: 314-153-044 and 314-153-046 **File No.: NCS-1038553**

TRA: 008-051

GRANT DEED

The Undersigned Grantor(s) Declare(s): DOCUMENTARY TRANSFER TAX $ 462.00 ; CITY TRANSFER TAX $ 0.00 ;

[X] computed on the consideration or full value of property conveyed, OR

[ ] computed on the consideration or full value less value of liens and/or encumbrances remaining at time of sale,

[ ] unincorporated area; [X] City of Perris, and

EXEMPT FROM BUILDING HOMES AND JOBS ACTS FEE PER GOVERNMENT CODE 27388.1(a)(2)

FOR A VALUABLE CONSIDERATION, RECEIPT OF WHICH IS HEREBY ACKNOWLEDGED **BERNARDITA PASCUAL**, as Trustee of the Bernardita Pascual Family Trust dated 7/1/11 ("Grantor"), hereby grants to **DUKE REALTY PATTERSON LP**, a Delaware limited partnership ("Grantee"), all of Grantor's right, title and interest in that certain real property in the City of Perris, County of Riverside County, State of California, as more particularly described in Exhibit "A" attached hereto and made a part hereof.

This Deed and the conveyance hereinabove set forth is executed by Grantor and accepted by Grantee subject to those matters set forth on Exhibit "B", incorporated by reference to this document, and apparent from an inspection or survey as of the date hereof.

DATED: April 19 , 2021

PLEASE SEE PAGE TWO FOR GRANTOR'S SIGNATURE.

MAIL TAX STATEMENTS TO PARTY SHOWN BELOW; IF NO PARTY SHOWN, MAIL AS DIRECTED ABOVE:

GRANT DEED - PAGE TWO
GRANTOR SIGNATURE:

Bernardita Pascual

Bernardita Pascual, Trustee of the Bernardita Pascual Family Trust, dated 7/1/11

[Notary acknowledgement on following page]

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California
County of Los Angeles

On April 6, 2021 before me, Jennifer Van Stone,
Notary Public, personally appeared BERNARDITA PASCUAL, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____ (Seal)

JENNIFER VAN STONE
Notary Public - California
Los Angeles County
Commission # 2326908
My Comm. Expires May 19, 2024

EXHIBIT "A"
LEGAL DESCRIPTION

The Land referred to herein below is situated in the City of Perris, County of Riverside, State of California and is described as follows:

LOTS 11 AND 12, BLOCK A OF GOLDEN VALLEY FARMS, IN THE CITY OF PERRIS, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, TOGETHER WITH PORTIONS OF CALIFORNIA STREET AND NEVADA AVENUE THAT WOULD PASS A CONVEYANCE OF SAID LOTS, AS PER MAP RECORDED IN BOOK 14 OF MAPS, PAGE 78, RECORDS OF RIVERSIDE COUNTY.

EXCEPTING THEREFROM THAT PORTION OF LOTS 11 AND 12 CONVEYED TO THE UNITED STATES OF AMERICA, BY DEED RECORDED JANUARY 31, 1995, AS INSTRUMENT NO. 32244, OFFICIAL RECORDS.

For conveyancing purposes only: APN 314-153-044 (Affects Lot 12); 314-153-046 (Affects Lot 11)

EXHIBIT "B"

PERMITTED EXCEPTIONS

1. General and special taxes and assessments for the fiscal year 2021-2022, a lien not yet due or payable.

2. The lien of supplemental taxes, if any, assessed pursuant to Chapter 3.5 commencing with Section 75 of the California Revenue and Taxation Code.

3. Water rights, claims or title to water, whether or not shown by the public records.

4. An easement for pipe lines and incidental purposes, recorded December 14, 1923 in Book 589 of Deeds, Page 504.

Deed Exhibit 4

DOC # 2021-0249735
04/22/2021 08:00 AM Fees: $20.00
Page 1 of 3
Recorded in Official Records
County of Riverside
Peter Aldana
Assessor-County Clerk-Recorder

This document was electronically submitted to the County of Riverside for recording
Receipted by: MARIA VICTORIA #411

RECORDING REQUESTED BY
AND WHEN RECORDED MAIL TO:

First American Title Insurance Company
Chicago National Commercial Services
30 North LaSalle Street, Suite 2700
Chicago, Illinois 60602
Attn: Melanie Watson

AND MAIL TAX STATEMENTS TO:

Duke Realty LP
c/o Real Estate Tax Advisors LLC
P.O. Box 40509
Indianapolis, IN 46240

GRANT DEED

APN: 314-153-030
TRA: 008-051

File No.: NCS-1057345

The Undersigned Grantor Declares:

DOCUMENTARY TRANSFER TAX $2,343.00;

CITY TRANSFER TAX $0;

[X] computed on the consideration or full value of property conveyed, OR
[ ] computed on the consideration or full value less value of liens and/or encumbrances remaining at time of sale,
[ ] unincorporated area; [X] City of **Perris**, and

EXEMPT FROM BUILDING HOMES AND JOBS ACTS FEE PER GOVERNMENT CODE 27388.1(a)(2)

FOR A VALUABLE CONSIDERATION, RECEIPT OF WHICH IS HEREBY ACKNOWLEDGED, **LILLY E. DENG**, a married woman, as her sole and separate property ("Grantor"), hereby grants to **DUKE REALTY PATTERSON LP**, a Delaware limited partnership ("Grantee"), all of Grantor's right, title and interest in that certain real property in the City of Perris, County of Riverside County, State of California, as more particularly described in Exhibit "A" attached hereto and made a part hereof (the "Property").

UNDER AND SUBJECT TO all easements, rights of way, reservations, restrictions, conditions and matters of record that are contained and/or conveyed in prior instruments of record or are apparent upon inspection of the Property described herein.

Date: April 20, 2021

MAIL TAX STATEMENTS AS DIRECTED ABOVE.

GRANT DEED - PAGE TWO
GRANTOR SIGNATURE:

GRANTOR:

PRONOTI D OAK
Notary Public - State of New York
NO. 01OA6111095
Qualified in Queens County
My Commission Expires Jun 7, 2024

Lilly E. Deng

The undersigned is the spouse of the Grantor and by his signature below joins in the transfer of all of his right, title and interest in the Property to the Grantee.

PRONOTI D OAK
Notary Public - State of New York
NO. 01OA6111095
Qualified in Queens County
My Commission Expires Jun 7, 2024

Long Deng

ACKNOWLEDGMENT

STATE OF NEW YORK)
)
COUNTY OF NASSAU)

On the 17 day of April, in the year 2021, before me, the undersigned, personally appeared Lilly E. Deng and Long Deng, personally known to me or proved to me on the basis of satisfactory evidence to be the individuals whose names are subscribed to the within instrument and acknowledged to me that they executed the same in their capacities, and that by their signatures on the instrument, the individuals, or the person upon behalf of which the individuals acted, executed the instrument.

Notary Public

Printed Name: Pronoti Oak

My Commission Expires: 6/7/24

EXHIBIT A

LEGAL DESCRIPTION

The Land referred to herein below is situated in the City of Perris, County of Riverside, State of California and is described as follows:

LOT 9 OF BLOCK "D" OF GOLDEN VALLEY FARMS, IN THE CITY OF PERRIS, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS SHOWN BY MAP ON FILE IN BOOK 14, PAGE 78 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

For conveyancing purposes only: APN 314-153-030

Deed Exhibit 5

DOC # 2021-0246801
04/21/2021 08:00 AM Fees: $26.00
Page 1 of 5
Recorded in Official Records
County of Riverside
Peter Aldana
Assessor-County Clerk-Recorder

RECORDING REQUESTED BY:
First American Title Company, National Commercial Services

AND WHEN RECORDED MAIL TO:
First American Title Insurance Company
Chicago National Commercial Services
30 North LaSalle Street, Suite 2700
Chicago, Illinois 60602
Attn: Melanie Watson

MAIL TAX STATEMENTS TO:
Duke Realty LP
c/o Real Estate Tax Advisors LLC
P.O. Box 40509
Indianapolis, IN 46240

THIS SPACE FOR RECORDER'S USE ONLY:

APN#: 314-153-031 **File No.: NCS-1038552**

TRA: 008-051

GRANT DEED

The Undersigned Grantor(s) Declare(s): DOCUMENTARY TRANSFER TAX $ 586.85 ; CITY TRANSFER TAX $ 0.00 ;

[x] computed on the consideration or full value of property conveyed, OR

[ ] computed on the consideration or full value less value of liens and/or encumbrances remaining at time of sale,

[ ] unincorporated area; [x] City of Perris, and

EXEMPT FROM BUILDING HOMES AND JOBS ACTS FEE PER GOVERNMENT CODE 27388.1(a)(2)

FOR A VALUABLE CONSIDERATION, RECEIPT OF WHICH IS HEREBY ACKNOWLEDGED, **MELANIE A. CONNELL**, a married woman, as her sole and separate property ("Grantor"), hereby grants to **DUKE REALTY PATTERSON LP**, a Delaware limited partnership ("Grantee"), all of Grantor's right, title and interest in that certain real property in the City of Perris, County of Riverside County, State of California, as more particularly described in Exhibit "A" attached hereto and made a part hereof.

This Deed and the conveyance hereinabove set forth is executed by Grantor and accepted by Grantee subject to those matters set forth on Exhibit "B", incorporated by reference to this document, and apparent from an inspection or survey as of the date hereof.

DATED: April 7th, 2021

PLEASE SEE PAGE TWO FOR GRANTOR'S SIGNATURE.

MAIL TAX STATEMENTS TO PARTY SHOWN BELOW; IF NO PARTY SHOWN, MAIL AS DIRECTED ABOVE:

_____

This document was electronically submitted to the County of Riverside for recording
Receipted by: LISA #580

GRANT DEED - PAGE TWO
GRANTOR SIGNATURE:

Melanie A. Connell

Melanie A. Connell

[Notary acknowledgement on following page]

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness accuracy, or validity of that document.

State of ~~California~~ PA
County of Butler

On April 7, 2021 before me, Jason Handyside, Notary Public, personally appeared Melanie A Cottrell, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of ~~California~~ PA that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____ (Seal)

Commonwealth of Pennsylvania - Notary Seal
Jason Handyside, Notary Public
Butler County
My commission expires January 24, 2023
Commission number 1339905
Member, Pennsylvania Association of Notaries

Commission Expires 1-24-23

EXHIBIT "A"
LEGAL DESCRIPTION

The Land referred to herein below is situated in the City of Perris, County of Riverside, State of California and is described as follows:

LOT 11 BLOCK D OF GOLDEN VALLEY FARMS, IN THE CITY OF PERRIS, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, TOGETHER WITH THOSE PORTIONS OF NANCE STREET AND NEVADA AVENUE THAT WOULD PASS WITH A CONVEYANCE OF SAID LOTS, AS PER MAP RECORDED IN BOOK 14 OF MAPS, PAGE 78, RECORDS OF RIVERSIDE COUNTY.

For conveyancing purposes only: APN 314-153-031

EXHIBIT "B"

PERMITTED EXCEPTIONS

1. General and special taxes and assessments for the fiscal year 2021-2022, a lien not yet due or payable.

2. The lien of supplemental taxes, if any, assessed pursuant to Chapter 3.5 commencing with Section 75 of the California Revenue and Taxation Code.

3. Water rights, claims or title to water, whether or not shown by the public records.

4. An easement for pipe lines and incidental purposes, recorded December 14, 1923 in Book 589 of Deeds, Page 504.

5. An easement for pipe lines and incidental purposes, recorded June 28, 1979 as instrument No. 135182 of Official Records.

Deed Exhibit 6

DOC # 2021-0021315
01/13/2021 08:00 AM Fees: $29.00
Page 1 of 6
Recorded in Official Records
County of Riverside
Peter Aldana
Assessor-County Clerk-Recorder

This document was electronically submitted to the County of Riverside for recording
Receipted by: LISA #580

RECORDING REQUESTED BY:
First American Title Company, National Commercial Services

AND WHEN RECORDED MAIL TO:
First American Title Insurance Company
Chicago National Commercial Services
30 North LaSalle Street, Suite 2700
Chicago, Illinois 60602
Attn: Melanie Watson

MAIL TAX STATEMENTS TO:
Duke Realty LP
c/o Real Estate Tax Advisors LLC
P.O. Box 40509
Indianapolis, IN 46240

THIS SPACE FOR RECORDER'S USE ONLY:

APN#: 314-153-032
TRA 008-051

File No.: NCS-1038551

GRANT DEED

The Undersigned Grantor(s) Declare(s): DOCUMENTARY TRANSFER TAX $ 627.00 ; CITY TRANSFER TAX $ _____ ;

[ ] computed on the consideration or full value of property conveyed, OR

[ ] computed on the consideration or full value less value of liens and/or encumbrances remaining at time of sale,

[ ] unincorporated area; [ ] City of Perris, and

EXEMPT FROM BUILDING HOMES AND JOBS ACTS FEE PER GOVERNMENT CODE 27388.1(a)(2)

FOR A VALUABLE CONSIDERATION, RECEIPT OF WHICH IS HEREBY ACKNOWLEDGED, **GEOFFREY M. K. BONNYCASTLE** and **JIA LU**, as husband and wife as Joint Tenants (together, "Grantor"), hereby grants to **DUKE REALTY PATTERSON LP**, a Delaware limited partnership ("Grantee"), all of Grantor's right, title and interest in that certain real property in the City of Perris, County of Riverside County, State of California, as more particularly described in Exhibit "A" attached hereto and made a part hereof.

This Deed and the conveyance hereinabove set forth is executed by Grantor and accepted by Grantee subject to those matters set forth on Exhibit "B", incorporated by reference to this document, and apparent from an inspection or survey as of the date hereof.

DATED: January 8, 2021

PLEASE SEE PAGE TWO FOR GRANTOR'S SIGNATURE.

MAIL TAX STATEMENTS TO PARTY SHOWN BELOW; IF NO PARTY SHOWN, MAIL AS DIRECTED ABOVE:

GRANT DEED - PAGE TWO
GRANTOR SIGNATURE:

Geoffrey M. K. Bonnycastle

Jia Lu

[Notary acknowledgement on following page]

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California
County of SAN DIEGO

On JAN 05, 2021 before me, INDERJEET SINGH, NOTARY PUBLIC
Notary Public, personally appeared GEOFFREY M. BONNYCASTLE, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____ (Seal)

INDERJEET SINGH
COMM. #2240757
NOTARY PUBLIC-CALIFORNIA
SAN DIEGO COUNTY
My Comm. Expires APRIL 30, 2022

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California
County of SAN DIEGO

On JAN 05, 2021 before me, INDERJEET SINGH, NOTARY PUBLIC, Notary Public, personally appeared JIA LU, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____ (Seal)

INDERJEET SINGH
COMM. #2240757
NOTARY PUBLIC-CALIFORNIA
SAN DIEGO COUNTY
My Comm. Expires APRIL 30, 2022

EXHIBIT "A"
LEGAL DESCRIPTION

The Land referred to herein below is situated in the City of Perris, County of Riverside, State of California and is described as follows:

LOT 12, BLOCK D OF GOLDEN VALLEY FARMS, IN THE CITY OF PERRIS, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, TOGETHER WITH THOSE PORTIONS OF NANCE STREET, THAT WOULD PASS WITH A CONVEYANCE OF SAID LOT, AS PER MAP RECORDED IN BOOK 14 OF MAPS, PAGE 78, RECORDS OF RIVERSIDE COUNTY.

For conveyancing purposes only: APN 314-153-032

EXHIBIT "B"

PERMITTED EXCEPTIONS

1. General and special taxes and assessments for the fiscal year 2020-2021 Second Installment, a lien not yet due or payable.

2. The lien of supplemental taxes, if any, assessed pursuant to Chapter 3.5 commencing with Section 75 of the California Revenue and Taxation Code.

3. Water rights, claims or title to water, whether or not shown by the public records.

4. An easement for ingress and egress over said land and incidental purposes, recorded as Book 14, Page 78 of Maps of Official Records.

5. An easement for pipe lines and incidental purposes, recorded December 14, 1923 in Book 589 of Deeds, Page 504.

6. An easement for pipe lines and incidental purposes, recorded June 28, 1979 as instrument No. 135182 of Official Records.

Deed Exhibit 7

DOC # 2021-0278797
05/05/2021 08:00 AM Fees: $74.00
Page 1 of 11
Recorded in Official Records
County of Riverside
Peter Aldana
Assessor-County Clerk-Recorder

This document was electronically submitted to the County of Riverside for recording
Receipted by: MARIA #309

RECORDING REQUESTED BY:
First American Title Company, National Commercial Services

AND WHEN RECORDED MAIL TO:
First American Title Insurance Company
Chicago National Commercial Services
30 North LaSalle Street, Suite 2700
Chicago, Illinois 60602
Attn: Melanie Watson

MAIL TAX STATEMENTS TO:
Duke Realty LP
c/o Real Estate Tax Advisors LLC
P.O. Box 40509
Indianapolis, IN 46240

THIS SPACE FOR RECORDER'S USE ONLY:

APN#: 314-153-048 **File No.: NCS-1038550**

TRA: 008-051

GRANT DEED

The Undersigned Grantor(s) Declare(s): DOCUMENTARY TRANSFER TAX $ 537.90 ; CITY TRANSFER TAX $ 0.00 ;

[x] computed on the consideration or full value of property conveyed, OR

[ ] computed on the consideration or full value less value of liens and/or encumbrances remaining at time of sale,

[ ] unincorporated area; [x] City of Perris, and

EXEMPT FROM BUILDING HOMES AND JOBS ACTS FEE PER GOVERNMENT CODE 27388.1(a)(2)

FOR A VALUABLE CONSIDERATION, RECEIPT OF WHICH IS HEREBY ACKNOWLEDGED **SUSAN BURNSIDE, as Trustee of THE BURNSIDE TRUST dated November 1st 2006, Eli G Anderson and Nicole Sheppard Anderson, Trustees of the Eli G. Anderson and Nicole Shepperd Anderson Revocable Living Trust dated May 22, 2020, Equity Trust Company Custodian FBO Peggy A. Renker, IRA, Equity Trust Company Custodian FBO Mary Klosterman, IRA, , ALL AS TENANTS IN COMMON** (collectively, "Grantor"), hereby grants to **DUKE REALTY PATTERSON LP**, a Delaware limited partnership ("Grantee"), all of Grantor's right, title and interest in that certain real property in the City of Perris, County of Riverside County, State of California, as more particularly described in Exhibit "A" attached hereto and made a part hereof.

This Deed and the conveyance hereinabove set forth is executed by Grantor and accepted by Grantee subject to those matters set forth on Exhibit "B", incorporated by reference to this document, and apparent from an inspection or survey as of the date hereof.

DATED: April 6, 2021

PLEASE SEE PAGE TWO FOR GRANTOR'S SIGNATURE

MAIL TAX STATEMENTS TO PARTY SHOWN BELOW; IF NO PARTY SHOWN, MAIL AS DIRECTED ABOVE:

GRANT DEED - PAGE TWO
GRANTOR SIGNATURE:

Susan Burnside, as Trustee of
The Burnside Trust dated November 1, 2006

_____
Eli G. Anderson, as Trustee of the Eli G. Anderson and Nicole Shepperd Anderson Revocable Living Trust dated May 22, 2020

_____
Nicole Shepperd Anderson, as Trustee of the Eli G. Anderson and Nicole Shepperd Anderson Revocable Living Trust dated May 22

Equity Trust Company,
Custodian, FBO Peggy A. Renker, IRA

By: _____
Name: _____
Title: _____

Equity Trust Company,
Custodian, FBO Mary Klosterman, IRA

By: _____
Name: _____
Title: _____

[Notary acknowledgements on following pages]

GRANT DEED - PAGE TWO
GRANTOR SIGNATURE:

_____
Susan Burnside, as Trustee of
The Burnside Trust dated November 1, 2006

_____
Eli G. Anderson, as Trustee of the Eli G. Anderson and Nicole Shepperd Anderson Revocable Living Trust dated May 22, 2020

_____
Nicole Shepperd Anderson, as Trustee of the Eli G. Anderson and Nicole Shepperd Anderson Revocable Living Trust dated May 22

Equity Trust Company,
Custodian, FBO Peggy A. Renker, IRA

By: _____
Name: _____
Title: _____

Equity Trust Company,
Custodian, FBO Mary Klosterman, IRA

By: _____
Name: _____
Title: _____

[Notary acknowledgements on following pages]

GRANT DEED - PAGE TWO
GRANTOR SIGNATURE:

_____
Susan Burnside, as Trustee of
The Burnside Trust dated November 1, 2006

_____
Eli G. Anderson, as Trustee of the Eli G. Anderson and Nicole Shepperd Anderson Revocable Living Trust dated May 22, 2020

_____
Nicole Shepperd Anderson, as Trustee of the Eli G. Anderson and Nicole Shepperd Anderson Revocable Living Trust dated May 22

Equity Trust Company,
Custodian, FBO Peggy A. Renker, IRA

By: _____
Name: _____
Title: _____

Equity Trust Company,
Custodian, FBO Mary Klosterman, IRA

By: _____
Name: MATTHEW COLLIER
Title: Corporate Alternate Signer

[Notary acknowledgements on following pages]

GRANT DEED - PAGE TWO
GRANTOR SIGNATURE:

Susan Burnside, as Trustee of
The Burnside Trust dated November 1, 2006

Eli G. Anderson, as Trustee of the Eli G. Anderson and Nicole Shepperd Anderson Revocable Living Trust dated May 22, 2020

Nicole Shepperd Anderson, as Trustee of the Eli G. Anderson and Nicole Shepperd Anderson Revocable Living Trust dated May 22

Equity Trust Company,
Custodian, FBO Peggy A. Renker, IRA

By: _____
Name: MATTHEW COLLIER
Title: Corporate Alternate Signer

Equity Trust Company,
Custodian, FBO Mary Klosterman, IRA

By: _____
Name: _____
Title: _____

[Notary acknowledgements on following pages]

Clear/Reset

WELLS FARGO

All-purpose Acknowledgment California

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California

County of Riverside

On 04/22/2021 before me, Claudia Arteaga, Notary Public (here insert name and title of the officer),

personally appeared Susan Burnside

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

NSP1 CLAUDIA ARTEAGA COMM. #2294681 NOTARY PUBLIC - CALIFORNIA RIVERSIDE COUNTY My Commission Expires 06/24/2023 NSP1

Notary Seal

WITNESS my hand and official seal.

Signature

For Bank Purposes Only

Description of Attached Document

Type or Title of Document Grant Deed

Document Date 04/22/2021 Number of Pages 2

Signer(s) Other Than Named Above

Account Number (if applicable) NA

FO01-000DSG5350CA-01

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of ~~California~~ Colorado
County of Denver

On April 9th 2021 before me, JaJuan Owens,
Notary Public, personally appeared Eli G. Anderson & Nicole Sheppard Anderson, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of ~~California~~ Colorado that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature JaJuan Owens (Seal)

JAJUAN OWENS
NOTARY PUBLIC
STATE OF COLORADO
NOTARY ID 20204003089
MY COMMISSION EXPIRES 01/23/2024

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of ~~California~~ OHIO
County of CUYAHOGA

On April 09, 2021 before me, LAURA G DEITZ,
Notary Public, personally appeared Matthew Collier CORPORATE ALTERNATE SIGNER, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/~~are~~ subscribed to the within instrument and acknowledged to me that he/~~she/they~~ executed the same in his/~~her/their~~ authorized capacity(ies), and that by his/~~her/their~~ signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of ~~California~~ OHIO that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____

Laura G Deitz
Notary Public - State of Ohio
2020-RE-809865
My Commission Expires
01/14/2025

(Seal)

[redacted]

State of ~~California~~ OHIO
County of CUYAHOGA

On April 15, 2021 before me, LAURA G DEITZ,
Notary Public, personally appeared Matthew Collier CORPORATE ALTERNATE SIGNER, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/~~are~~ subscribed to the within instrument and acknowledged to me that ~~he/she/they~~ executed the same in his/~~her/their~~ authorized capacity(ies), and that by his/~~her/their~~ signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of ~~California~~ OHIO that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____(Seal)

NOTARY PUBLIC STATE OF OHIO

Laura G Deitz
Notary Public - State of Ohio
2020-RE-809865
My Commission Expires
01/14/2025

EXHIBIT "A"
LEGAL DESCRIPTION

The Land referred to herein below is situated in the City of Perris, County of Riverside, State of California and is described as follows:

LOT 10, BLOCK D OF GOLDEN VALLEY FARMS, IN THE CITY OF PERRIS, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, TOGETHER WITH THAT PORTION OF CALIFORNIA STREET, NEVADA AVENUE THAT WOULD PASS WITH A CONVEYANCE OF SAID LOT, AS PER MAP RECORDED IN BOOK 14 OF MAPS, PAGE 78, RECORDS OF RIVERSIDE COUNTY.

EXCEPTING THEREFROM THAT PORTION OF LOT 10 CONVEYED TO THE UNITED STATES OF AMERICA, BY DEED RECORDED JANUARY 31, 1995, AS INSTRUMENT NO. 32244, OFFICIAL RECORDS.

For conveyancing purposes only: APN 314-153-048

EXHIBIT "B"

PERMITTED EXCEPTIONS

1. General and special taxes and assessments for the fiscal year 2021-2022, a lien not yet due or payable.

2. The lien of supplemental taxes, if any, assessed pursuant to Chapter 3.5 commencing with Section 75 of the California Revenue and Taxation Code.

3. Water rights, claims or title to water, whether or not shown by the public records.

4. An easement for pipe lines and incidental purposes, recorded December 14, 1923 in Book 589 of Deeds, Page 504.

5. An easement for pipe lines and incidental purposes, recorded June 28, 1979 as Instrument No. 135182 of Official Records.

Deed Exhibit 8

DOC # 2009-0094672
02/26/2009 08:00A Fee:9.00
Page 1 of 1
Recorded in Official Records
County of Riverside
Larry W. Ward
Assessor, County Clerk & Recorder

RECORDING REQUESTED BY:
CHIN YEN HUNG

WHEN RECORDED, MAIL TO
AND MAIL TAX STATEMENTS TO:
Mr. Chin Yen Hung
19421 Sierra Linda
Irvine, CA 92603

S	R	U	PAGE	SIZE	DA	MISC	LONG	RFD	COPY
M	A	L	465	426	PCOR	NCOR	SMF	NCHG	EXAM 010

APN: 314-161-044-2

The undersigned Grantor declares that this conveyance transfers Grantor's interest to Grantor's Revocable Trust for no consideration.
This transaction is exempt from the Documentary Transfer Tax pursuant to R & T Code §11930.

M 010

GRANT DEED TO A REVOCABLE TRUST

CHIN YEN HUNG, the GRANTOR, HEREBY GRANTS TO CHIN YEN HUNG, as Trustee of "The HCY Trust", dated March 31, 2008, the GRANTEE, all of his undivided interest in the following described real property in the County of Riverside, State of California:

LOT 3, BLOCK E OF GOLDEN VALLEY FARMS, IN THE COTY OF PERRIS, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, TOGETHER WITH THOSE PORTIONS OF NANCE STREET AND ARIZONA STREET THAT WOULD PASS WITH A CONVEYANCE OF SAID LOTS, AS PER MAP RECORDED IN BOOK 14 OF MAPS, PAGE 78, RECORDS OF RIVERSIDE COUNTY.

The then-acting Trustee has the power and authority to encumber or otherwise to manage and dispose of the hereinabove described real property; including, but not limited to, the power to convey.

Executed on March 31, 2008, in Orange County, California.

Chin-Yen Hung

CHIN YEN HUNG

STATE OF CALIFORNIA
COUNTY OF ORANGE

On March 31, 2008, before me, Chi Won Kwon, a Notary Public, personally appeared CHIN YEN HUNG, who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal. [SEAL]

Chi Won Kwon

Signature of Notary Public

CHI WON KWON
Comm. # 1561868
NOTARY PUBLIC - CALIFORNIA
Orange County
My Comm. Expires March 20, 2009

Deed Exhibit 9

RECORDING REQUESTED BY

4 NORTH AMERICAN TITLE CO.

AND WHEN RECORDED MAIL THIS DEED AND UNLESS OTHERWISE SHOWN BELOW, MAIL TAX STATEMENTS TO:

Name GNA REALTY, LLC.

Street Address C/O VELUR LAND INVESTMENTS, INC. P.O. BOX 5111

City State Zip SHERMAN OAKS, CA 91413

TITLE ORDER NO. 3811939-22 ESCROW NO. V-16267

DOC # 2004-0337119
05/06/2004 08:00A Fee:10.00
Page 1 of 2 Doc T Tax Paid
Recorded in Official Records
County of Riverside
Gary L. Orso
Assessor, County Clerk & Recorder

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A	R	L			COPY	LONG	REFUND	NCHG	EXAM

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VG

TRA:008

Grant Deed

7906S20-2

THE UNDERSIGNED GRANTOR(s) DECLARE(s)
DOCUMENTARY TRANSFER TAX is NO SHOWN 0
☐ _____ unincorporated area ☒ City of Perris,
Parcel No. 314-161-045-3
☒ computed on full value of property conveyed, or
☐ computed on full value less value of liens or encumbrances remaining at time of sale, and

FOR A VALUABLE CONSIDERATION, receipt of which is hereby acknowledged,
VELUR LAND INVESTMENTS, INC., a California Corporation.

hereby GRANT(s) to GNA REALTY, LLC.
the following described real property in the City of Perris, County of Riverside, State of California:

LOT 4, BLOCK E OF GOLDEN VALLEY FARMS, IN THE CITY OF PERRIS, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, TOGETHER WITH THOSE PORTIONS OF NANCE STREET AND ARIZONA STREET THAT WOULD PASS WITH A CONVEYANCE OF SAID LOTS, AS PER MAP RECORDED IN BOOK 14 OF MAPS, PAGE 78, RECORDS OF RIVERSIDE COUNTY.

Dated APR 13, 2004

VELUR LAND INVESTMENTS, INC.

By: _____
Lubor Hlavacek, President

STATE OF CALIFORNIA }
COUNTY OF LOS ANGELES } S.S.

On May 04, 2004 before me,

Worku Fente
a Notary Public in and for said County and State, personally appeared

LUBOR HLAVACEK
personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal

Signature _____

WORKU FENTE
Commission # 1266390
Notary Public - California
Los Angeles County
My Comm. Expires Jun 19, 2004

(This area for official notarial seal)

MAIL TAX STATEMENTS TO PARTY SHOWN ON THE FOLLOWING LINE; IF NO PARTY, THEN MAIL AS DIRECTED ABOVE
SAME AS ABOVE

sgrant	Name	Street Address	City	State	Zip

M

ILLEGIBLE NOTARY SEAL DECLARATION

I CERTIFY UNDER PENALTY OF PERJURY THAT THE NOTARY SEAL ON THE DOCUMENTS TO WHICH THIS STATEMENT IS ATTACHED, READS AS FOLLOWS:

NAME OF NOTARY: Worku Fente

COMMISSION NUMBER: 1266390

COUNTY OF COMMISSION: Los Angeles

DATE COMMISSION EXPIRES: June 19 2004

PLACE OF EXECUTION OF THIS DECLARATION: REDLANDS, CA

NORTH AMERICAN TITLE COMPANY

Ann Shumway
SIGNATURE

5-5-04
DATE

Deed Exhibit 10

RECORDING REQUESTED BY
AND WHEN RECORDED MAIL THIS DEED AND UNLESS OTHERWISE SHOWN BELOW MAIL TAX STATEMENTS TO
NORTH AMERICAN TITLE CO.

Name HSIU MEI YANG

Street Address C/O VELUR LAND INVESTMENTS, INC.
P.O. BOX 5111

City State Zip SHERMAN OAKS, CA 91413

TITLE ORDER NO. 3813058-22 ESCROW NO. V-16277

DOC # 2004-0357820
05/13/2004 08:00A Fee:30.00
Page 1 of 2 Doc T Tax Paid
Recorded in Official Records
County of Riverside
Gary L. Orso
Assessor, County Clerk & Recorder

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Grant Deed

TRA: 008

30

7906S20-3

THE UNDERSIGNED GRANTOR(s) DECLARE(s)
DOCUMENTARY TRANSFER TAX is NO SHOW

T
YS

☐ _____ unincorporated area ☒ City of Perris,
Parcel No. 314-161-046-4
☒ computed on full value of property conveyed, or
☐ computed on full value less value of liens or encumbrances remaining at time of sale, and

FOR A VALUABLE CONSIDERATION, receipt of which is hereby acknowledged,
VELUR LAND INVESTMENTS, INC., a California Corporation.

hereby GRANT(s) to HSIU MEI YANG, an unmarried woman as her sole and separate property.
the following described real property in the City of Perris, County of Riverside, State of California:

LOT 5, BLOCK E OF GOLDEN VALLEY FARMS, IN THE CITY OF PERRIS, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, TOGETHER WITH THOSE PORTIONS OF NANCE STREET AND ARIZONA STREET THAT WOULD PASS WITH A CONVEYANCE OF SAID LOTS, AS PER MAP RECORDED IN BOOK 14 OF MAPS, PAGE 78, RECORDS OF RIVERSIDE COUNTY.

Dated April 16, 2004

STATE OF CALIFORNIA }
COUNTY OF Los Angeles } S.S.

On May 10, 2004 before me,
Florence Alexander
a Notary Public in and for said County and State, personally appeared
Lubor Hlavacek
personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal
Signature Florence Alexander

VELUR LAND INVESTMENTS, INC.
By: _____
Lubor Hlavacek, President

FLORENCE ALEXANDER
Commission # 1339212
Notary Public - California
Los Angeles County
My Comm. Expires Jan 21, 2006

(This area for official notarial seal)

MAIL TAX STATEMENTS TO PARTY SHOWN ON THE FOLLOWING LINE; IF NO PARTY, THEN MAIL AS DIRECTED ABOVE
SAME AS ABOVE

sgrant	Name	Street Address	City	State	Zip

ILLEGIBLE NOTARY SEAL DECLARATION

I CERTIFY UNDER PENALTY OF PERJURY THAT THE NOTARY SEAL ON THE DOCUMENTS TO WHICH THIS STATEMENT IS ATTACHED, READS AS FOLLOWS:

NAME OF NOTARY: FLORENCE ALEXANDER

COMMISSION NUMBER: 1339212

COUNTY OF COMMISSION: LOS ANGELES

DATE COMMISSION EXPIRES: JANUARY 21, 2006

PLACE OF EXECUTION OF THIS DECLARATION: REDLANDS, CA

NORTH AMERICAN TITLE COMPANY

Ann Shumway
SIGNATURE

5-12-04
DATE

Deed Exhibit 11

NORTH AMERICAN TITLE CO.

RECORDING REQUESTED BY
AND WHEN RECORDED MAIL THIS DEED AND, UNLESS OTHERWISE SHOWN BELOW, MAIL TAX STATEMENT TO

Name JUN YOKOTA, TRUSTEE AND
TOSHIKO YOKOTA, TRUSTEE, ET AL
Street C/O VELUR LAND INVESTMENTS, INC.
Address P.O. BOX 5111
City SHERMAN OAKS, CA 91413
State
Zip

TITLE ORDER NO. 3811958-22 ESCROW NO. V-16270

DOC # 2004-0326327
05/03/2004 08:00A Fee:10.00
Page 1 of 2 Doc T Tax Paid
Recorded in Official Records
County of Riverside
Gary L. Orso
Assessor, County Clerk & Recorder

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TRA-008

Grant Deed

T 10
CM

7906S20-4

THE UNDERSIGNED GRANTOR(s) DECLARE(s)
DOCUMENTARY TRANSFER TAX is See DoShow papers
☐ _____ unincorporated area ☒ City of Perris
Parcel No. 314-161-047-5
☒ computed on full value of property conveyed, or
☐ computed on full value less value of liens or encumbrances remaining at time of sale, and

FOR A VALUABLE CONSIDERATION, receipt of which is hereby acknowledged,
VELUR LAND INVESTMENTS, INC., a California Corporation

hereby GRANT(s) to JUN YOKOTA and TOSHIKO YOKOTA, TRUSTEES OF THE YOKOTA FAMILY TRUST, DATED AUGUST 25, 2000 as to an undivided 50% interest; KENSUKE DANIEL YOKOTA, a single man as his sole and separate property as to an undivided 50% interest. ALL AS TENANTS IN COMMON.
the following described real property in the City of Perris, County of Riverside, State of California:

LOT 6, BLOCK E OF GOLDEN VALLEY FARMS, IN THE CITY OF PERRIS, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, TOGETHER WITH THOSE PORTIONS OF NANCE STREET AND ARIZONA STREET THAT WOULD PASS WITH A CONVEYANCE OF SAID LOTS, AS PER MAP RECORDED IN BOOK 14 OF MAPS, PAGE 78, RECORDS OF RIVERSIDE COUNTY.

Dated April 13, 2004

STATE OF CALIFORNIA }
COUNTY OF Los Angeles } S.S.

On April 29, 2004 before me,
Worku Fente
a Notary Public in and for said County and State, personally appeared
Lubor Hlavacek
personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal
Signature _____

VELUR LAND INVESTMENTS, INC.

By: _____
Lubor Hlavacek, President

1286390
California
County
My Comm. Exp. 19, 20

(This area for official notarial seal)

MAIL TAX STATEMENTS TO PARTY SHOWN ON THE FOLLOWING LINE; IF NO PARTY, THEN MAIL AS DIRECTED ABOVE
SAME AS ABOVE

sgrant	Name	Street Address	City	State	Zip

Government Code 27361.7

I Certify Under Penalty of Perjury That The Notary Seal On The Document To Which This Statement Is Attached Reads As Follows:

Name of Notary: Marta Fente

Commission No: 1766390

Date Commission Expires: Jun 19, 2004

County: Los Angeles

By [signature]

Date: 5/3/04

Deed Exhibit 12

Recording requested by
Stewart Title of California, Inc

DOC # 2019-0404284
10/08/2019 03:55 PM Fees: $17.00
Page 1 of 2
Recorded in Official Records
County of Riverside
Peter Aldana
Assessor-County Clerk-Recorder

RECORDING REQUESTED BY:
Elevated Escrow Services, Inc.
Order No. **538486**
Escrow No. **19002052-TZ**
Parcel No. **314-160-009**

AND WHEN RECORDED MAIL TO:

ROGER GIL
33126 CHEYENNE CIRCLE
MENIFEE, CA 92584
INACCS-CSI

This document was electronically submitted to the County of Riverside for recording
Receipted by: ALYCIA #778

SPACE ABOVE THIS LINE FOR RECORDER'S USE

GRANT DEED

THE UNDERSIGNED GRANTOR(S) DECLARE(S) THAT DOCUMENTARY TRANSFER TAX IS **$361.90** and CITY $ —

- ☒ computed on full value of property conveyed, or
- ☐ computed on full value less liens or encumbrances remaining at the time of sale.
- ☐ unincorporated area: ☒ **Perris**, and

FOR A VALUABLE CONSIDERATION, receipt of which is hereby acknowledged, **Won Kyun Moon, a Married Man as his sole and separate property,** who acquired title as a single man

hereby GRANT(S) to **Roger Gil, a single man**

the following described real property in the County of **Riverside**, State of California:
Legal Description is as per attached and made a part hereof, Marked Exhibit "A"
More commonly known as: **Nance Street Vacant Land, Perris, CA**

Date September 24, 2019

Won Kyun Moon

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

STATE OF Washington
COUNTY OF Pierce } S.S.

On September 28, 2019, before me, Angelique Leigh Phillips, Notary Public, personally appeared **Won Kyun Moon**, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of ~~California~~ Washington that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____ (Seal)

ANGELIQUE LEIGH PHILLIPS
NOTARY PUBLIC
STATE OF WASHINGTON
COMMISSION EXPIRES
JULY 25, 2020

Mail Tax Statement to: SAME AS ABOVE or Address Noted Below

EXHIBIT "A"

LEGAL DESCRIPTION

Order No.: 538486
Escrow No.: 538486

The land referred to herein is situated in the State of California, County of Riverside, City of Perris and described as follows:

Lot 7, Block E of Golden Valley Farms, in the City of Perris, County of Riverside, State of California, together with those portions of Nance Street and Arizona Street, that would pass with a conveyance of said Lots, as per map recorded in Book 14 of Maps, Page 78, Records of Riverside County.

APN: 314-160-009

(End of Legal Description)

Deed Exhibit 13

RECORDING REQUESTED BY
AND WHEN RECORDED MAIL THIS DEED AND, UNLESS OTHERWISE SHOWN BELOW, MAIL TAX STATEMENT TO:
NORTH AMERICAN TITLE CO.

Name FENG MEI RUAN AND
DI WANG
Street C/O VELUR LAND INVESTMENTS, INC.
Address P.O. BOX 5111

City SHERMAN OAKS, CA 91413
State
Zip

TITLE ORDER NO. 3811843-22 ESCROW NO. V-16242

DOC # 2004-0285967
04/20/2004 08:00A Fee:7.00
Page 1 of 1 Doc T Tax Paid
Recorded in Official Records
County of Riverside
Gary L. Orso
Assessor, County Clerk & Recorder

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A	R	L			COPY	LONG	REFUND	NCHG	EXAM

TRA: 008

Grant Deed

7906S20-6

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THE UNDERSIGNED GRANTOR(s) DECLARE(s)
DOCUMENTARY TRANSFER TAX is NO SHOW
☐ _____ unincorporated area ☒ City of Perris,
Parcel No. 314-161-049-7
☒ computed on full value of property conveyed, or
☐ computed on full value less value of liens or encumbrances remaining at time of sale, and

FOR A VALUABLE CONSIDERATION, receipt of which is hereby acknowledged,
VELUR LAND INVESTMENTS, INC., a California Corporation.

hereby GRANT(s) to FENG MEI RUAN, an unmarried woman as her sole and separate property as to an undivided 50% interest; DI WANG, an unmarried woman as her sole and separate property as to an undivided 50% interest. ALL AS TENANTS IN COMMON.
the following described real property in the City of Perris, County of Riverside, State of California:

LOT 8, BLOCK E OF GOLDEN VALLEY FARMS, IN THE CITY OF PERRIS, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, TOGETHER WITH THOSE PORTIONS OF NANCE STREET AND ARIZONA STREET THAT WOULD PASS WITH A CONVEYANCE OF SAID LOTS, AS PER MAP RECORDED IN BOOK 14 OF MAPS, PAGE 78, RECORDS OF RIVERSIDE COUNTY.

Dated APR 01, 2004

STATE OF CALIFORNIA }
COUNTY OF LOS ANGELES } S.S.

On April 16, 2004 before me,

Florence Alexander
a Notary Public in and for said County and State, personally appeared

LUBOR HLAVACEK

personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal

Signature Florence Alexander

VELUR LAND INVESTMENTS, INC.

By: _____
Lubor Hlavacek, President

FLORENCE ALEXANDER
Commission # 1339212
Notary Public - California
Los Angeles County
My Comm. Expires Jan 21, 2006

(This area for official notarial seal)

MAIL TAX STATEMENTS TO PARTY SHOWN ON THE FOLLOWING LINE; IF NO PARTY, THEN MAIL AS DIRECTED ABOVE
SAME AS ABOVE

sgrant	Name	Street Address	City	State	Zip

Deed Exhibit 14

RECORDING REQUEST BY:

See Below

WHEN RECORDED MAIL TO:

Cory J. Briggs
Briggs Law Corporation
99 East "C" Street, Suite 111
Upland, CA 91786

Assessor's Parcel No.: 314-161-050-7

DOC # 2007-0725906
12/04/2007 08:00A Fee:10.00
Page 1 of 2
Recorded in Official Records
County of Riverside
Larry W. Ward
Assessor, County Clerk & Recorder

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M	A	L	465	426	PCOR	NCOR	SMF	NCHG	EXAM
					T:		CTY	UNI	

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QUITCLAIM DEED

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035

THE UNDERSIGNED GRANTOR(s) DECLARE(s) THAT DOCUMENTARY TRANSFER TAX IS $0.00 AND
[X] this conveyance transfers an interest into or out of a Living Trust, R & T 11930,
[ ] computed on full value of property conveyed, or
[ ] computed on full value less value of liens or encumbrances remaining at time of sale.
[ ] unincorporated area; [X] City of Perris, and

FOR A VALUABLE CONSIDERATION, the receipt of which is hereby acknowledged,
ARMANDO LOVERA, A MARRIED MAN, AS HIS SOLE AND SEPARATE PROPERTY, AS TO AN UNDIVIDED 50.000% INTEREST AND JESUS MENDOZA, A MARRIED MAN, AS HIS SOLE AND SEPARATE PROPERTY, AS TO AN UNDIVIDED 50.000% INTEREST, ALL AS TENANTS IN COMMON.

hereby REMISE(S), RELEASE(S), and FOREVER QUITCLAIM(S) to
ARMANDO LOVERA AND MARIA E. LOVERA, AS TRUSTEES OF THE ARMANDO AND MARIA E. LOVERA FAMILY TRUST DATED NOVEMBER 1, 2007, AND JESUS MENDOZA AND MARICELA MENDOZA, AS TRUSTEES OF THE JESUS AND MARICELA MENDOZA FAMILY TRUST DATED NOVEMBER 1, 2007, WITH EACH TRUST HOLDING A ONE-HALF UNDIVIDED INTEREST AS TENANTS IN COMMON

all the real property situated in the City of Perris, County of Riverside, State of California, described as:
PARCEL 9, BLOCK E, UNIT 1 OF GOLDEN VALLEY FARMS AS SHOWN BY MAP ON FILE IN BOOK 14, PAGE 78 OF MAPS IN THE OFFICE OF THE COUNTY RECORDER OF RIVERSIDE COUNTY, CALIFORNIA.

Date: November 1, 2007

By: _____
Armando Lovera

By: _____
Jesus Mendoza

MAIL TAX STATEMENTS TO: Armando and Maria Lovera, 830 Shiraz Drive, Hemet, CA 92545

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

[Civil Code Section 1189]

State of California)
County of San Bernardino)

On NOVEMBER 1, 2007, before me, KERI M. TAYLOR, Notary Public, personally appeared ARMANDO LOVERA AND JESUS MENDOZA, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) ~~is~~/are subscribed to the within instrument and acknowledged to me that ~~he/she~~/they executed the same in ~~his/her~~/their authorized capacity(ies), and that by ~~his/her~~/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

NRO1 KERI M. TAYLOR COMM. #1568091 Notary Public - California San Bernardino County My Comm. Expires Apr. 10, 2009 NRO1

Signature Keri M. Taylor (Seal)

* * Optional Information * *

Instrument Description: _____

Instrument Date: _____

Number of Pages: _____

Fingerprints of Signer(s): _____ _____

Deed Exhibit 15

DOC # 2021-0349835
06/09/2021 12:51 PM Fees: $30.00
Page 1 of 3
Recorded in Official Records
County of Riverside
Peter Aldana
Assessor-County Clerk-Recorder

RECORDED AT THE REQUEST OF CHICAGO TITLE COMPANY

****This document was electronically submitted to the County of Riverside for recording****
Receipted by: DEYANIRA #293

RECORDING REQUESTED BY:

Order No. 112109960-JT
Escrow No. 24313CT
Parcel No. 314-160-012

AND WHEN RECORDED MAIL TO:

LUCIA DENG
23622 RIDGE LINE RD
DIAMOND BAR, CA 91765

SPACE ABOVE THIS LINE FOR RECORDER'S USE

GRANT DEED

TRA 008-051

THE UNDERSIGNED GRANTOR(S) DECLARE(S) THAT DOCUMENTARY TRANSFER TAX IS $55.00 and CITY $

- ☒ computed on full value of property conveyed, or
- ☐ computed on full value less liens or encumbrances remaining at the time of sale.
- ☐ unincorporated area: ☒ City of **Perris**, and

FOR A VALUABLE CONSIDERATION, receipt of which is hereby acknowledged, **Jie Zhang, a single man**

hereby GRANT(S) to **Lucia Deng, a single woman**

the following described real property in the County of ~~Los Angeles~~ Riverside, State of California:

See Exhibit "A" attached hereto and made a part thereof.

More commonly known as: **APN# 314-160-012, Perris, CA**

"vacant land"

Date May 14, 2021

Jie Zhang
Jie Zhang

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

STATE OF CALIFORNIA
COUNTY OF } S.S.

On _____, before me, _____,
personally appeared _____, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____ (Seal)

Mail Tax Statement to: SAME AS ABOVE or Address Noted Below

ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of ~~California~~ Texas are
County of Dallas)

On May 20, 2021 before me, Ashanti N. Clark, Notary Public
(insert name and title of the officer)

personally appeared Jie Zhang,
who proved to me on the basis of satisfactory evidence to be the person~~(s)~~ are whose name~~(s)~~ are is/~~are~~ are subscribed to the within instrument and acknowledged to me that he/~~she/they~~ are executed the same in his/~~her/their~~ are authorized capacity~~(ies)~~ are, and that by his/~~her/their~~ are signature~~(s)~~ are on the instrument the person~~(s)~~ are, or the entity upon behalf of which the person~~(s)~~ are acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of ~~California~~ Texas are that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

ASHANTI N. CLARK
Notary Public, State of Texas
Comm. Expires 08-07-2022
Notary ID 129912442

Signature Ashanti N. Clark (Seal)

EXHIBIT "A"

Legal Description

For APN/Parcel ID(s): 314-160-012

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE CITY OF PERRIS, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA AND IS DESCRIBED AS FOLLOWS:

LOT 10, BLOCK E OF GOLDEN VALLEY FARMS, IN THE CTTY OF PERRIS, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, TOGETHER WITH THOSE PORTIONS OF NANCE STREET AND NEVADA AVENUE THAT WOULD PASS WITH A CONVEYANCE OF SAID LOTS, AS PER MAP RECORDED IN BOOK 14 OF MAPS, PAGE 78, RECORDS OF RIVERSIDE COUNTY.

APPENDIX D

AERIAL PHOTOGRAPHS

Duke - Patterson Expansion

Not Reported

Perris, CA 92571

Inquiry Number: 6641725.11

August 30, 2021

The EDR Aerial Photo Decade Package

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

08/30/21

Site Name:

Duke - Patterson Expansion
Not Reported
Perris, CA 92571
EDR Inquiry # 6641725.11

Client Name:

APEX Environmental
15850 Crabbs Branch Way
Rockville, MD 20855
Contact: Tania Cowden

Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

Search Results:

Year	Scale	Details	Source
2016	1"=500'	Flight Year: 2016	USDA/NAIP
2012	1"=500'	Flight Year: 2012	USDA/NAIP
2009	1"=500'	Flight Year: 2009	USDA/NAIP
2006	1"=500'	Flight Year: 2006	USDA/NAIP
2002	1"=500'	Acquisition Date: January 01, 2002	USGS/DOQQ
1994	1"=500'	Acquisition Date: January 01, 1994	USGS/DOQQ
1990	1"=500'	Flight Date: September 06, 1990	USDA
1989	1"=500'	Flight Date: August 15, 1989	USDA
1985	1"=500'	Flight Date: July 28, 1985	USDA
1978	1"=500'	Flight Date: September 20, 1978	USDA
1967	1"=500'	Flight Date: May 15, 1967	USDA
1961	1"=500'	Flight Date: June 14, 1961	USDA
1953	1"=500'	Flight Date: August 28, 1953	USDA
1949	1"=500'	Flight Date: May 06, 1949	USDA
1938	1"=500'	Flight Date: June 14, 1938	USDA

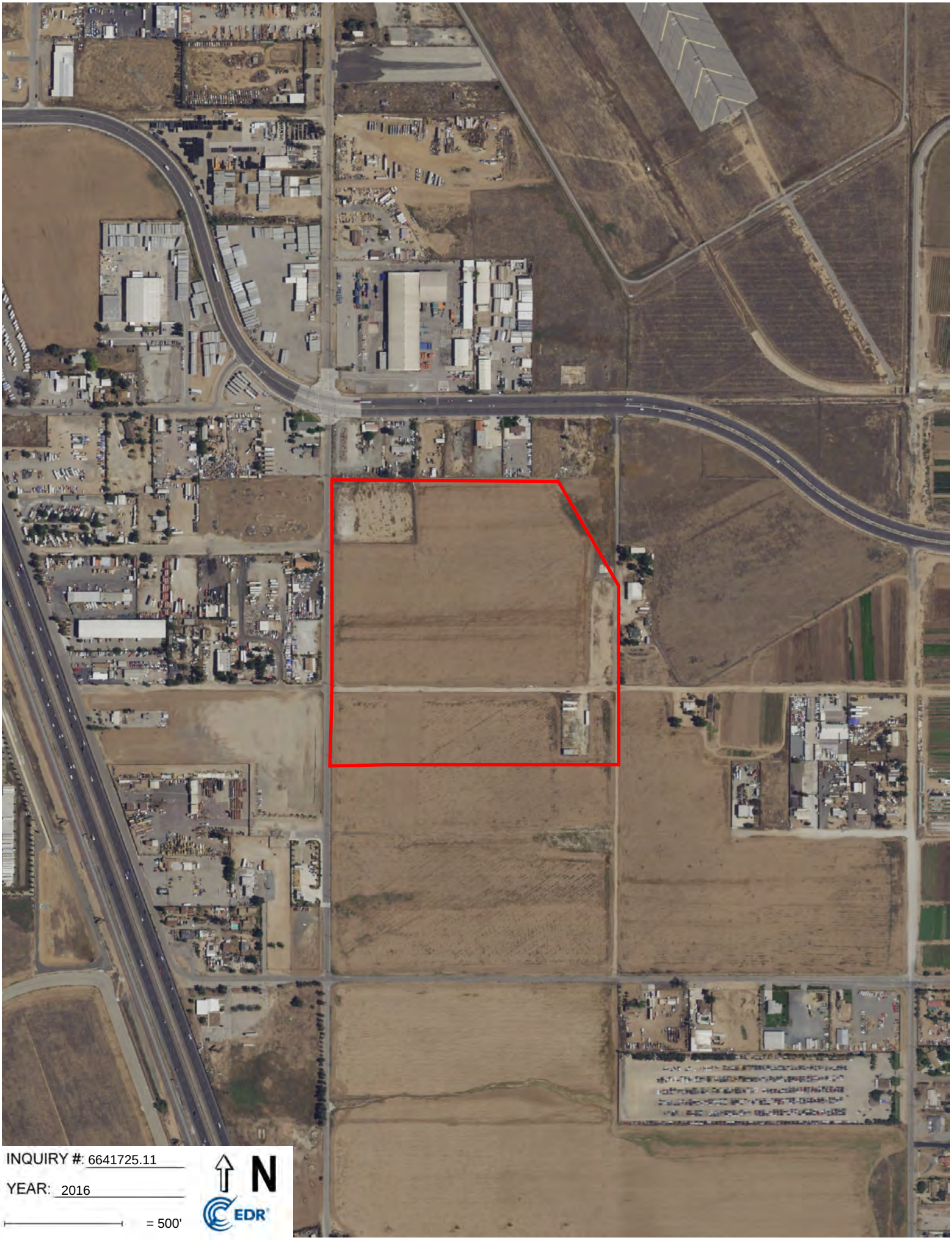
When delivered electronically by EDR, the aerial photo images included with this report are for ONE TIME USE ONLY. Further reproduction of these aerial photo images is prohibited without permission from EDR. For more information contact your EDR Account Executive.

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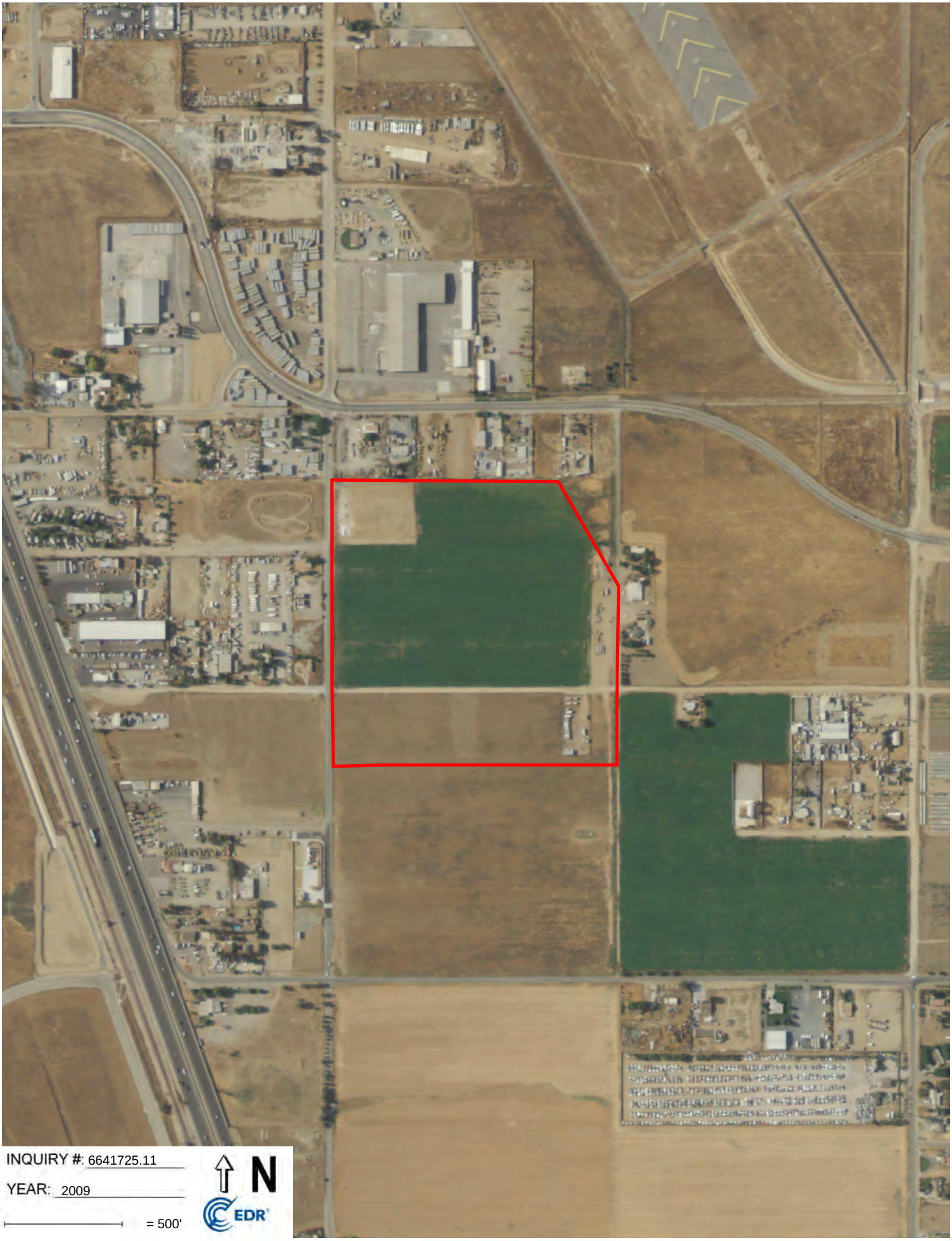
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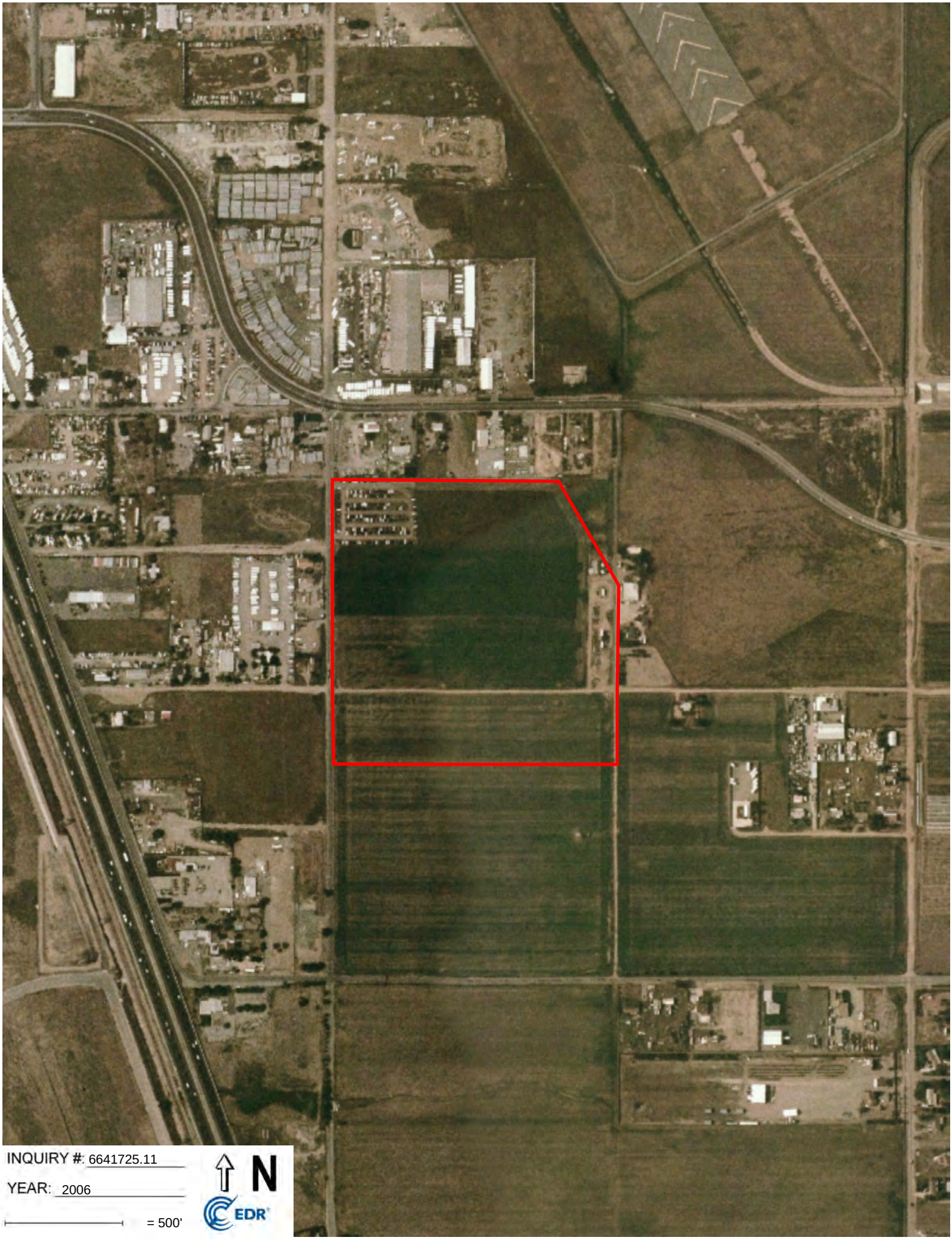
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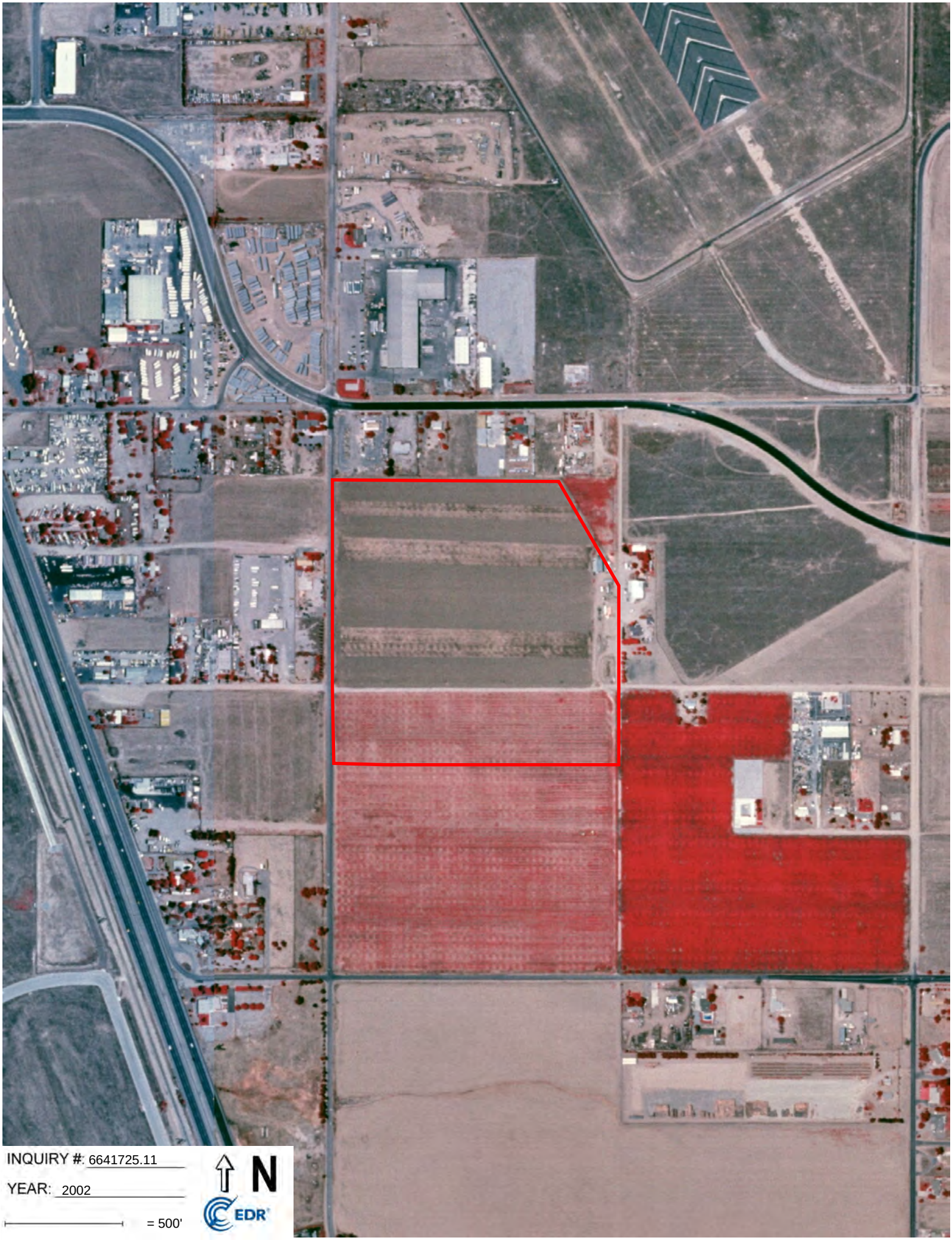
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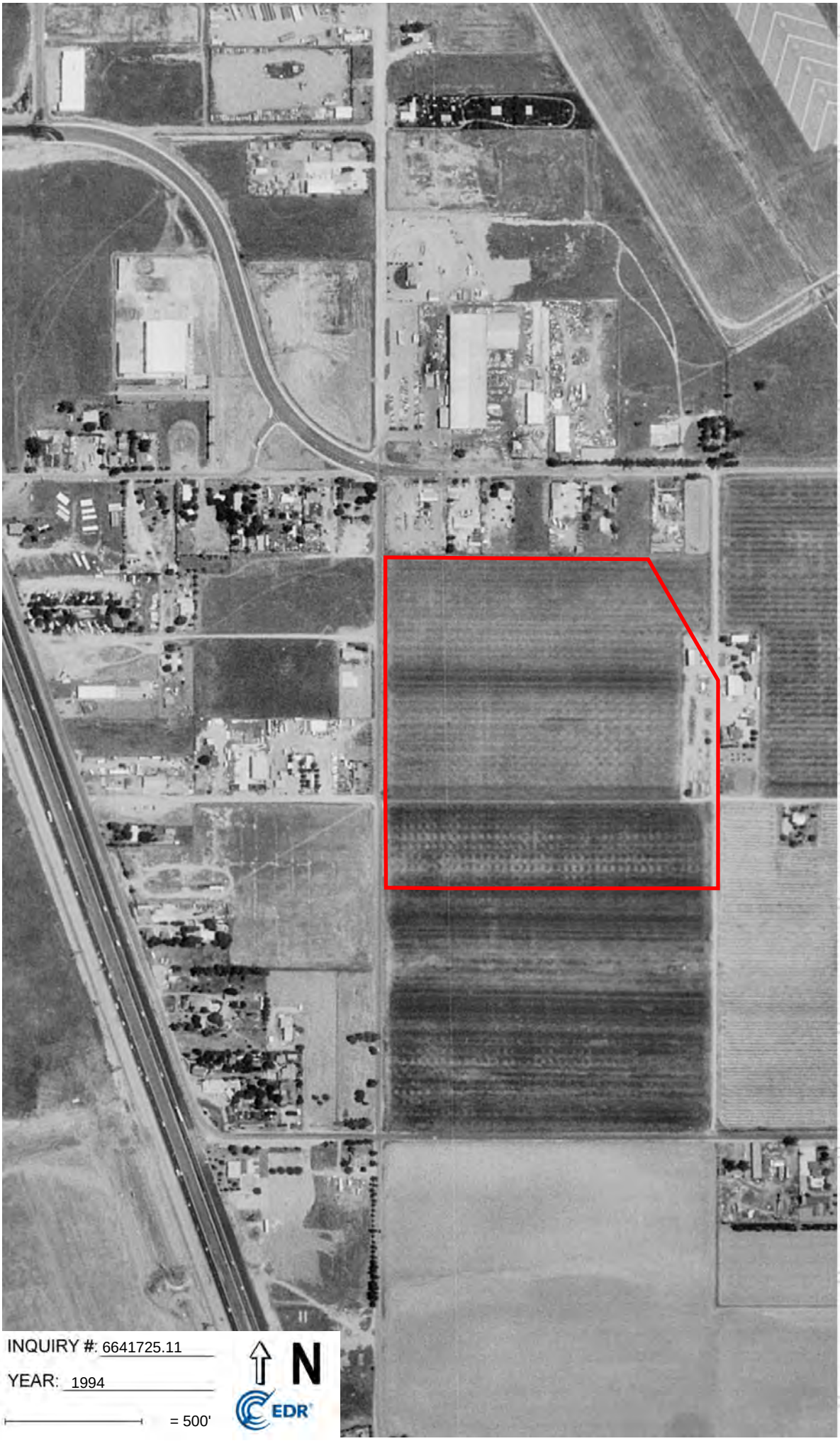

INQUIRY #: 6641725.11
YEAR: 2016
= 500'
N
EDR


INQUIRY #: 6641725.11
YEAR: 2012
= 500'
N
EDR


INQUIRY #: 6641725.11
YEAR: 2009
= 500'
N
EDR


INQUIRY #: 6641725.11
YEAR: 2006
= 500'
N
EDR


INQUIRY #: 6641725.11
YEAR: 2002
= 500'
N
EDR



INQUIRY #: 6641725.11

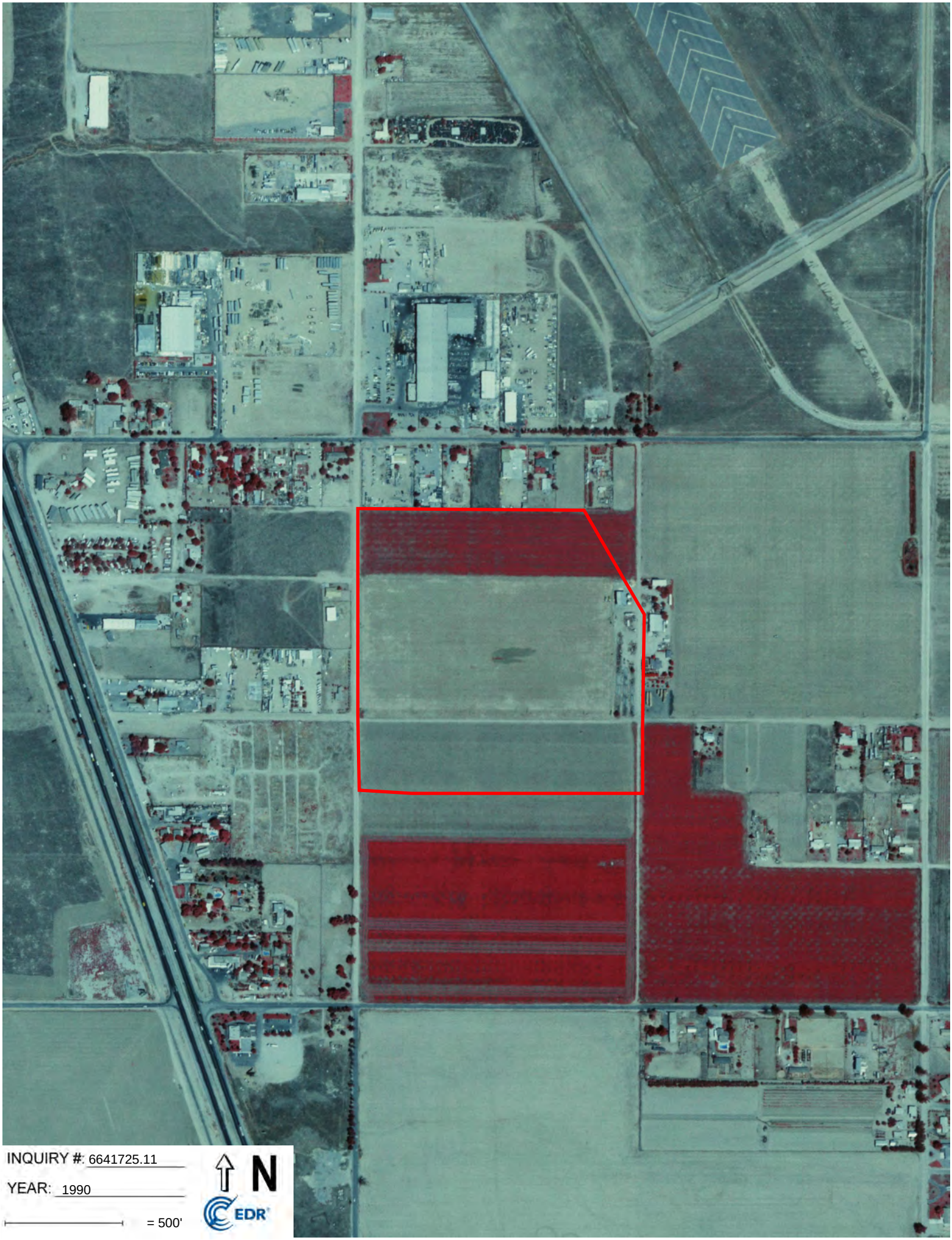
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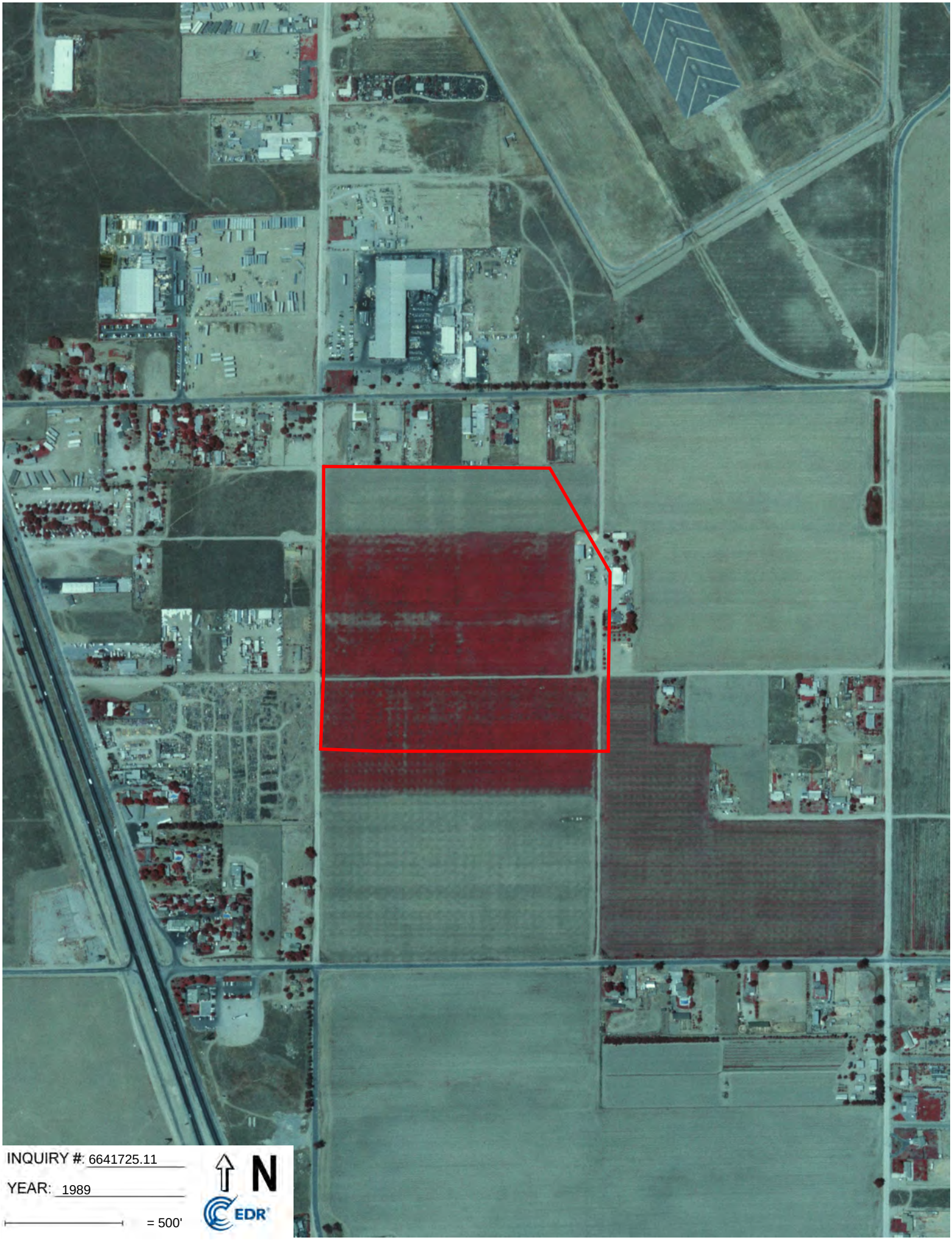
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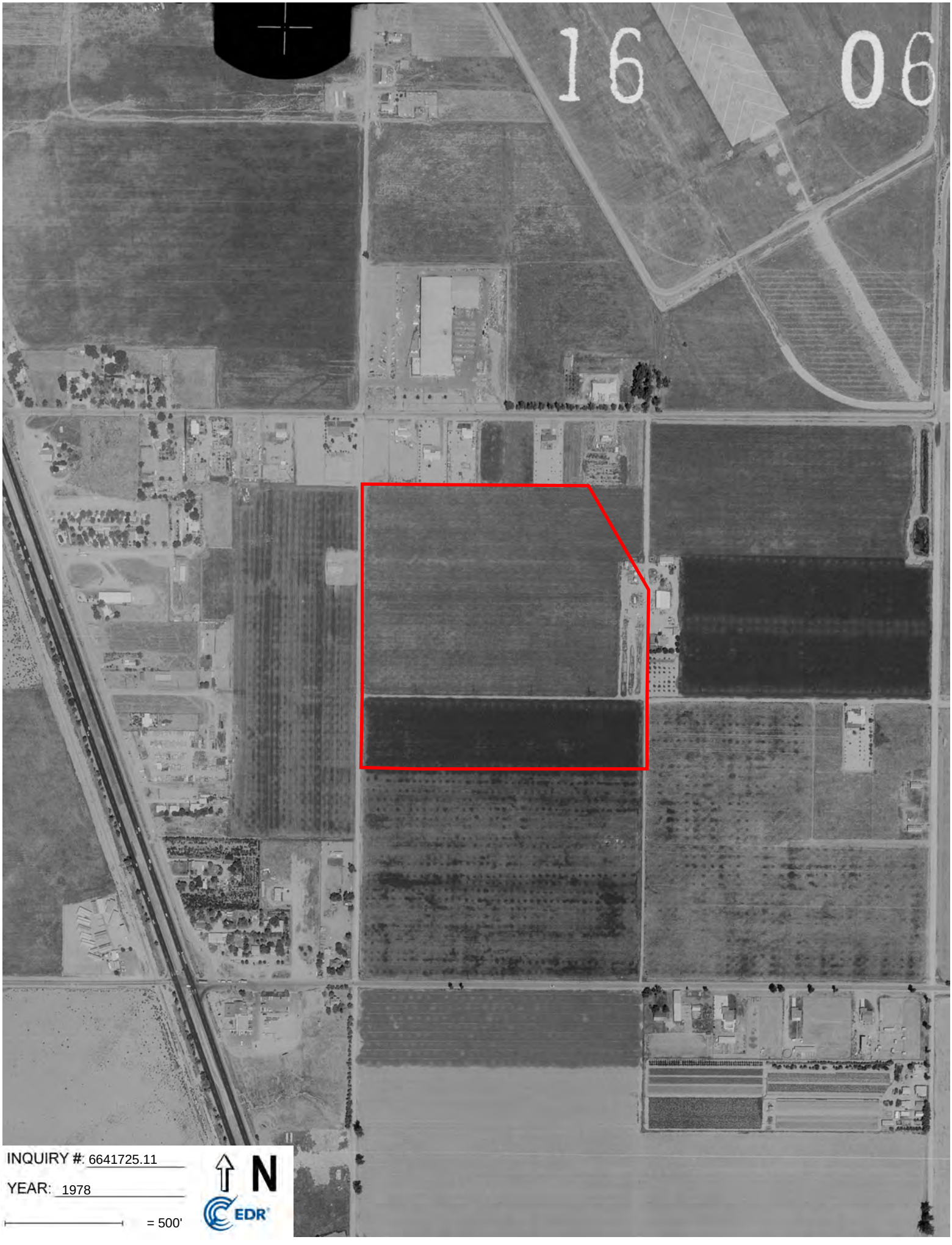
EDR

UNMAPPED


INQUIRY #: 6641725.11
YEAR: 1990
= 500'
N
EDR


INQUIRY #: 6641725.11
YEAR: 1989
= 500'
N
EDR


INQUIRY #: 6641725.11
YEAR: 1985
= 500'
N
EDR



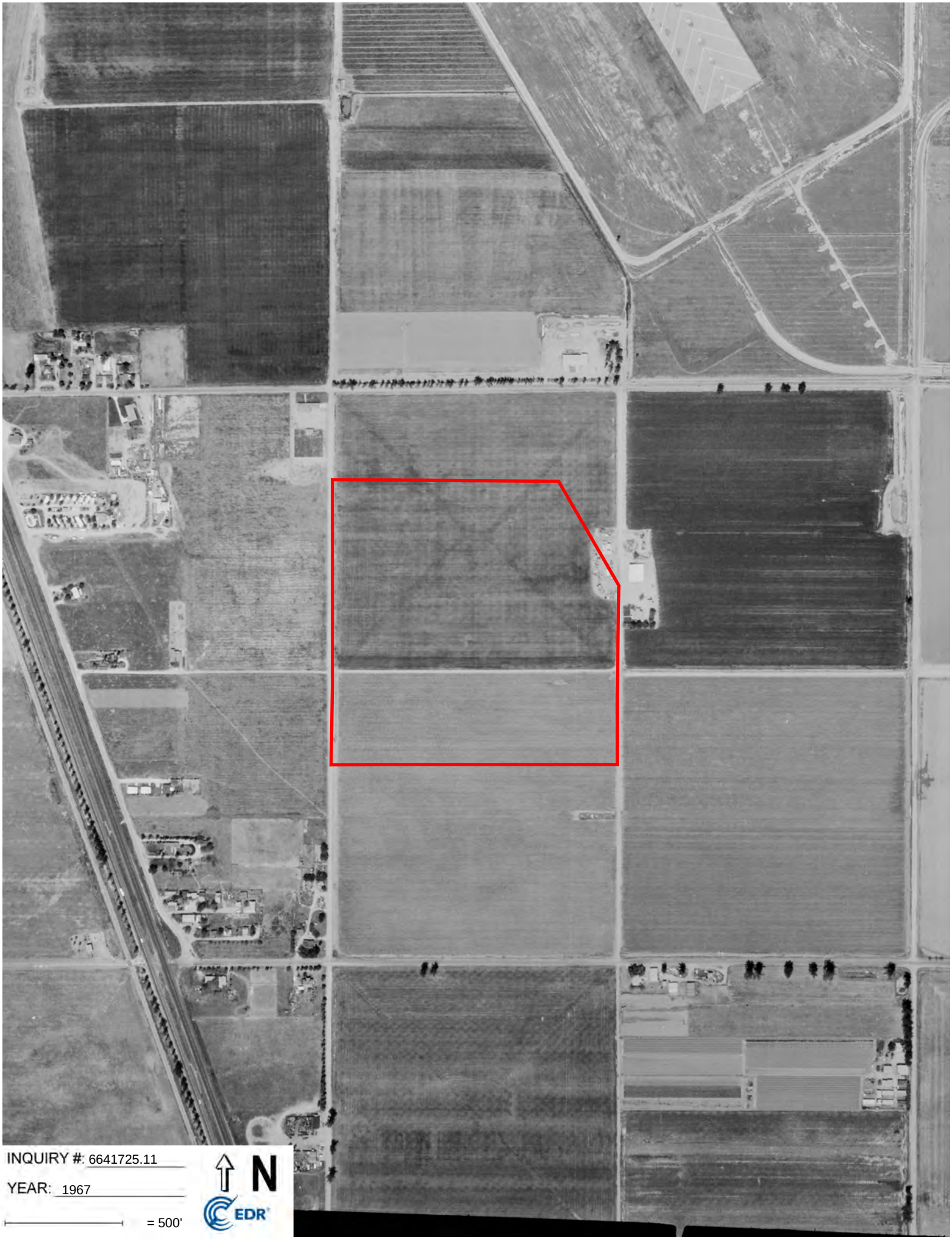
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YEAR: 1978

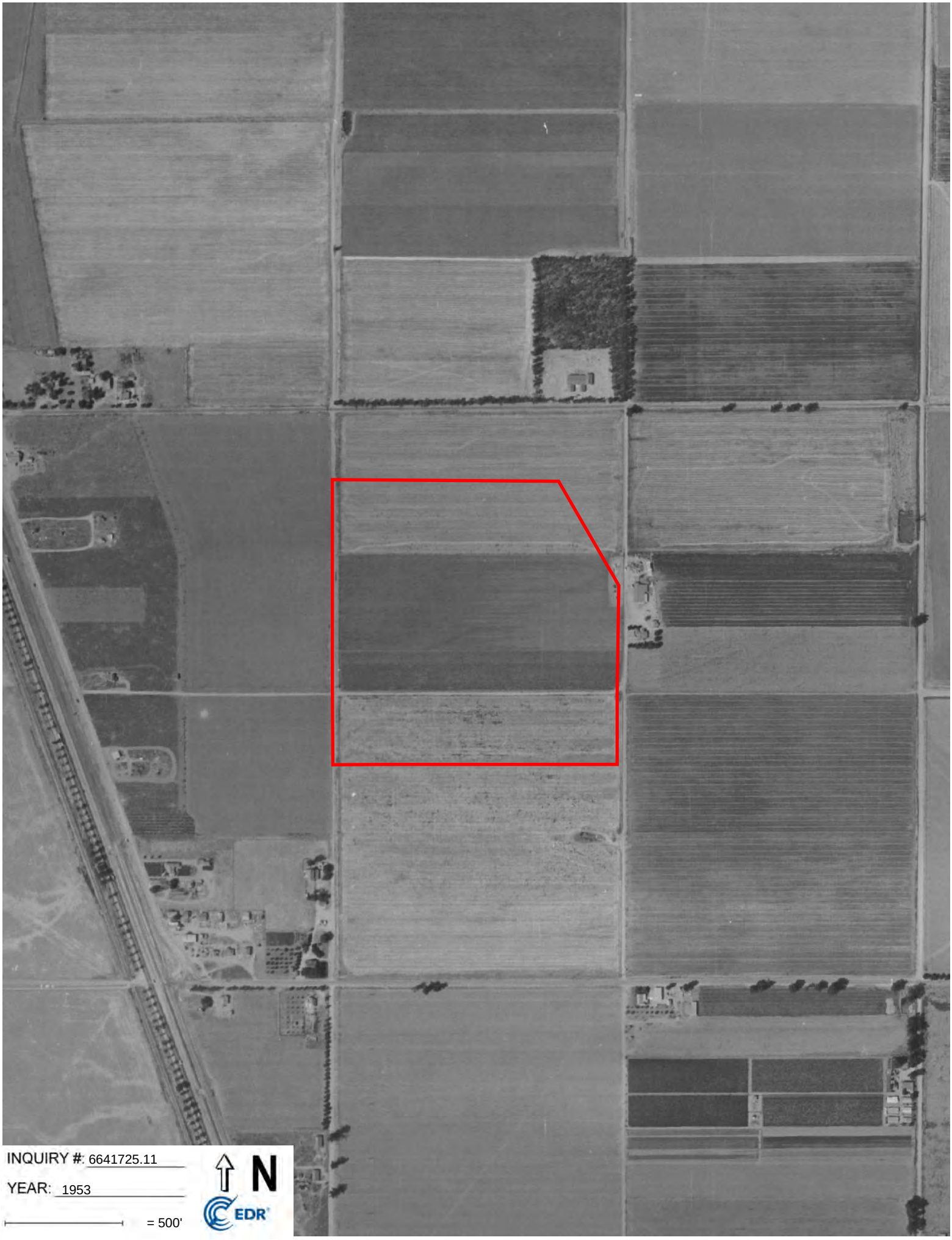
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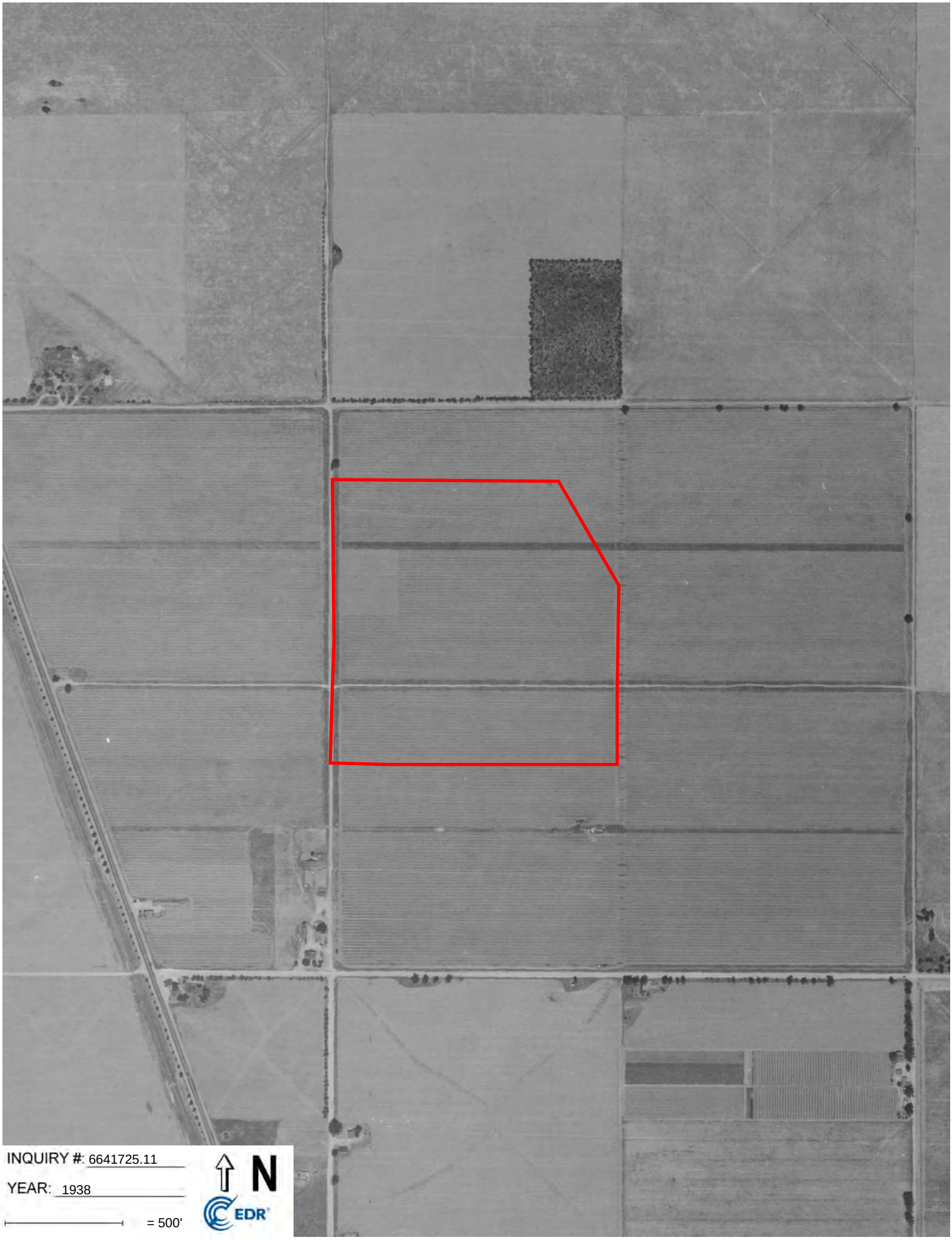
EDR


INQUIRY #: 6641725.11
YEAR: 1967
= 500'
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EDR


INQUIRY #: 6641725.11
YEAR: 1961
= 500'
N
EDR


INQUIRY #: 6641725.11
YEAR: 1953
= 500'
N
EDR


INQUIRY #: 6641725.11
YEAR: 1949
= 500'
N
EDR


INQUIRY #: 6641725.11
YEAR: 1938
= 500'
N
EDR

APPENDIX E

TOPOGRAPHIC MAPS

Duke - Patterson Expansion

Not Reported

Perris, CA 92571

Inquiry Number: 6641725.4

August 30, 2021

EDR Historical Topo Map Report

with QuadMatch™

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Historical Topo Map Report

08/30/21

Site Name:

Duke - Patterson Expansion
Not Reported
Perris, CA 92571
EDR Inquiry # 6641725.4

Client Name:

APEX Environmental
15850 Crabbs Branch Way
Rockville, MD 20855
Contact: Tania Cowden

EDR Topographic Map Library has been searched by EDR and maps covering the target property location as provided by APEX Environmental were identified for the years listed below. EDR's Historical Topo Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDRs Historical Topo Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the late 1800s.

Search Results:

P.O.# NA
Project: NA

Coordinates:

Latitude:	33.855004 33° 51' 18" North
Longitude:	-117.251033 -117° 15' 4" West
UTM Zone:	Zone 11 North
UTM X Meters:	476778.30
UTM Y Meters:	3746107.64
Elevation:	1495.00' above sea level

Maps Provided:

2012	1942
1979, 1980	1901
1978	
1973	
1967	
1953	
1947	
1943	

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Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

2012 Source Sheets



Riverside East
2012
7.5-minute, 24000



Perris
2012
7.5-minute, 24000



Steele Peak
2012
7.5-minute, 24000



Sunnymead
2012
7.5-minute, 24000

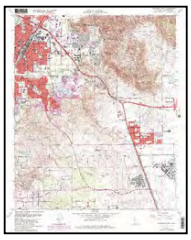
1979, 1980 Source Sheets



Perris
1979
7.5-minute, 24000
Aerial Photo Revised 1978



Sunnymead
1980
7.5-minute, 24000
Aerial Photo Revised 1978



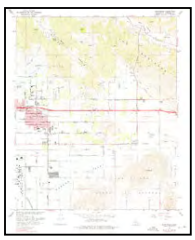
Riverside East
1980
7.5-minute, 24000
Aerial Photo Revised 1978

1978 Source Sheets

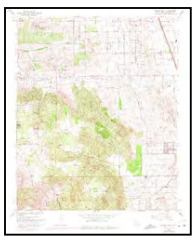


Steele Peak
1978
7.5-minute, 24000
Aerial Photo Revised 1978

1973 Source Sheets



Sunnymead
1973
7.5-minute, 24000
Aerial Photo Revised 1973



Steele Peak
1973
7.5-minute, 24000
Aerial Photo Revised 1973



Perris
1973
7.5-minute, 24000
Aerial Photo Revised 1973

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1967 Source Sheets



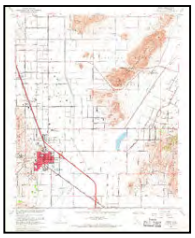
Riverside East
1967
7.5-minute, 24000
Aerial Photo Revised 1966



Steele Peak
1967
7.5-minute, 24000
Aerial Photo Revised 1966



Sunnymead
1967
7.5-minute, 24000
Aerial Photo Revised 1966



Perris
1967
7.5-minute, 24000
Aerial Photo Revised 1966

1953 Source Sheets



Perris
1953
7.5-minute, 24000
Aerial Photo Revised 1951



Sunnymead
1953
7.5-minute, 24000
Aerial Photo Revised 1951



Steele Peak
1953
7.5-minute, 24000
Aerial Photo Revised 1951



Riverside East
1953
7.5-minute, 24000
Aerial Photo Revised 1951

1947 Source Sheets



RIVERSIDE
1947
15-minute, 50000

1943 Source Sheets



PERRIS
1943
15-minute, 62500

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1942 Source Sheets



Perris
1942
15-minute, 62500
Aerial Photo Revised 1939



Riverside
1942
15-minute, 62500
Aerial Photo Revised 1939

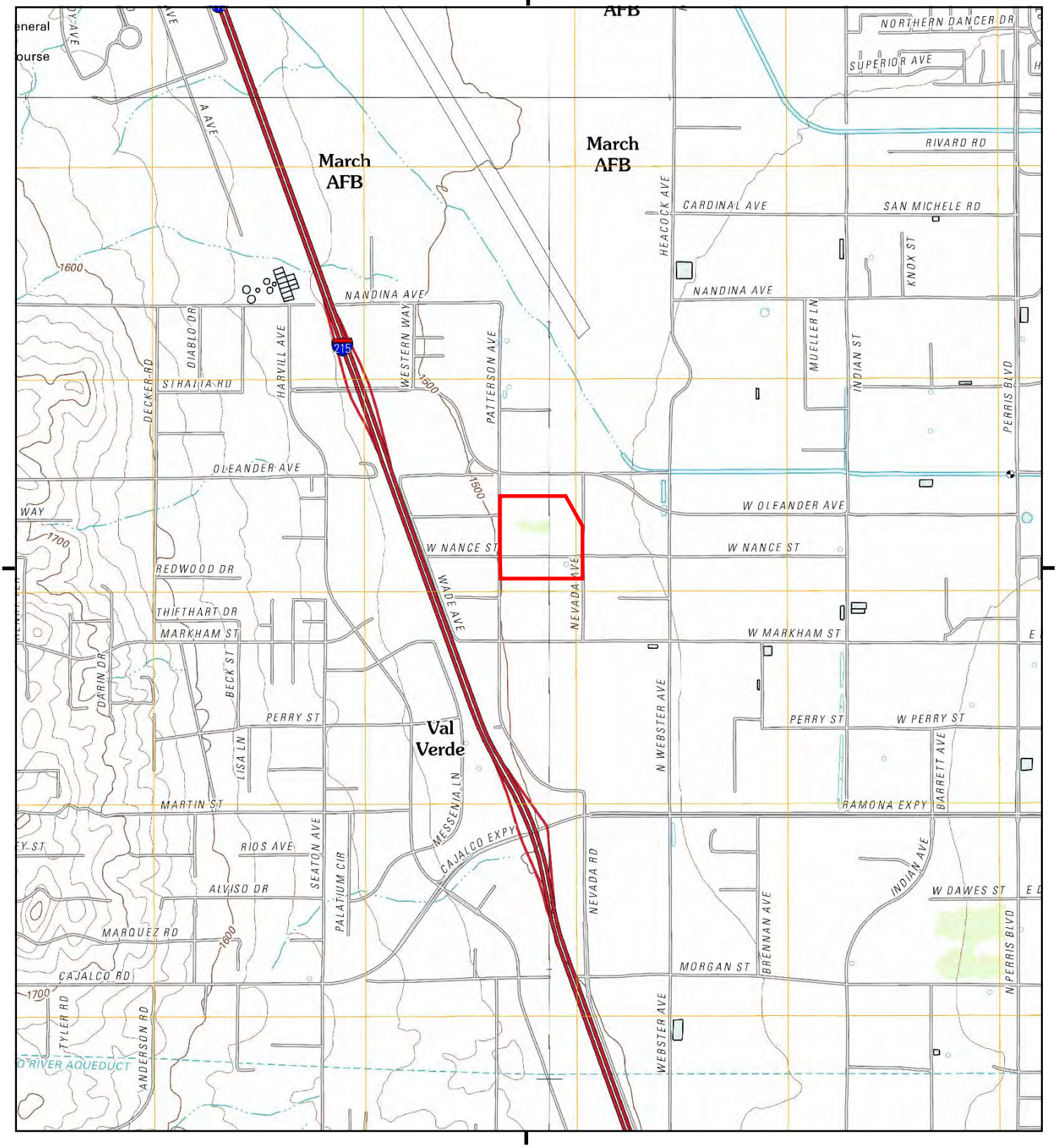
1901 Source Sheets



Riverside
1901
15-minute, 62500

Historical Topo Map

2012



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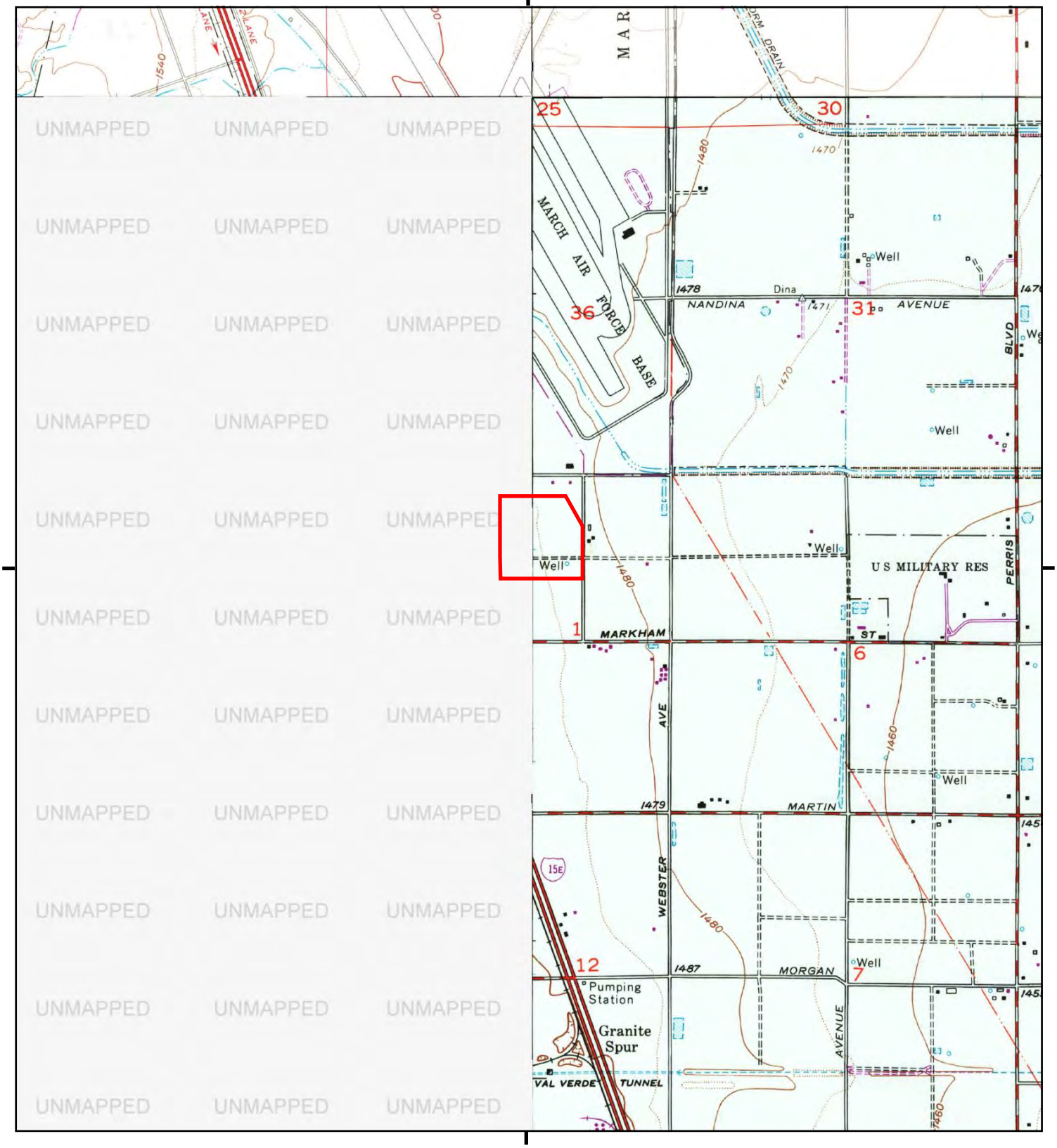
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Steele Peak, 2012, 7.5-minute
NE, Sunnymead, 2012, 7.5-minute
SE, Perris, 2012, 7.5-minute
NW, Riverside East, 2012, 7.5-minute

SITE NAME: Duke - Patterson Expansion
ADDRESS: Not Reported
Perris, CA 92571
CLIENT: APEX Environmental

N



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

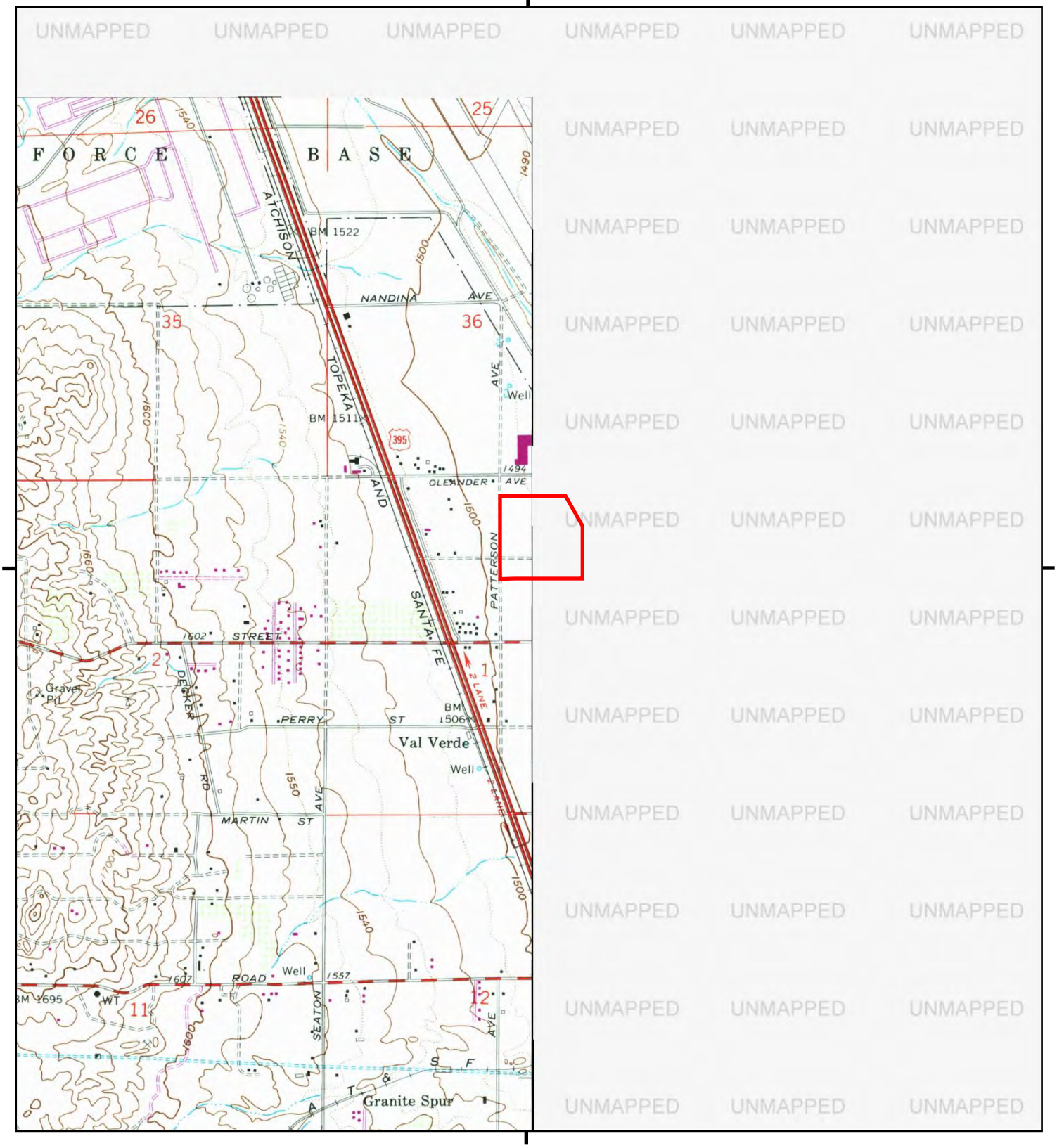
NE, Sunnymead, 1980, 7.5-minute
SE, Perris, 1979, 7.5-minute
NW, Riverside East, 1980, 7.5-minute

SITE NAME: Duke - Patterson Expansion
ADDRESS: Not Reported
Perris, CA 92571
CLIENT: APEX Environmental

N

Historical Topo Map

1978



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

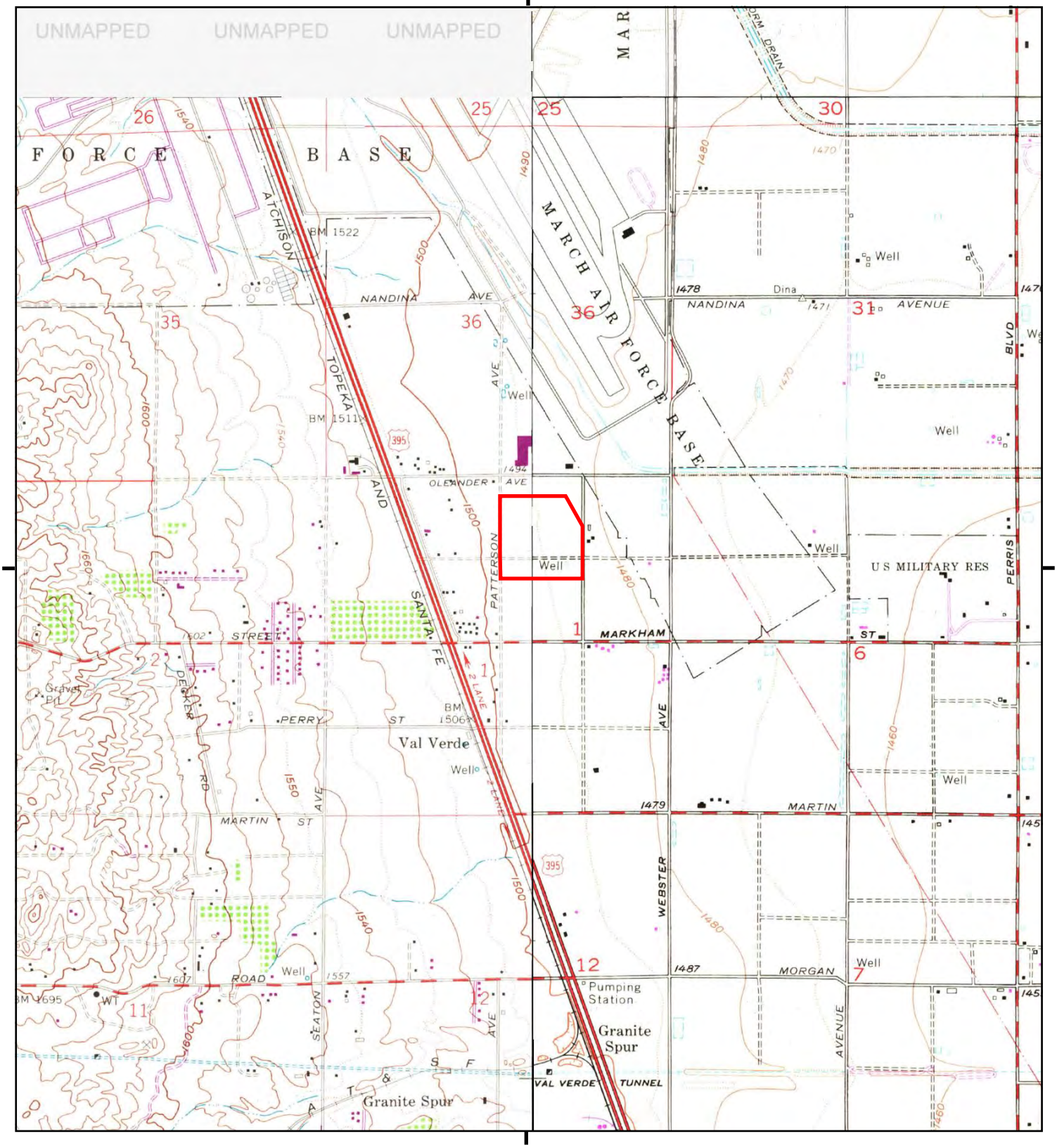
TP, Steele Peak, 1978, 7.5-minute

SITE NAME: Duke - Patterson Expansion
ADDRESS: Not Reported
Perris, CA 92571
CLIENT: APEX Environmental

N

Historical Topo Map

1973



This report includes information from the following map sheet(s).

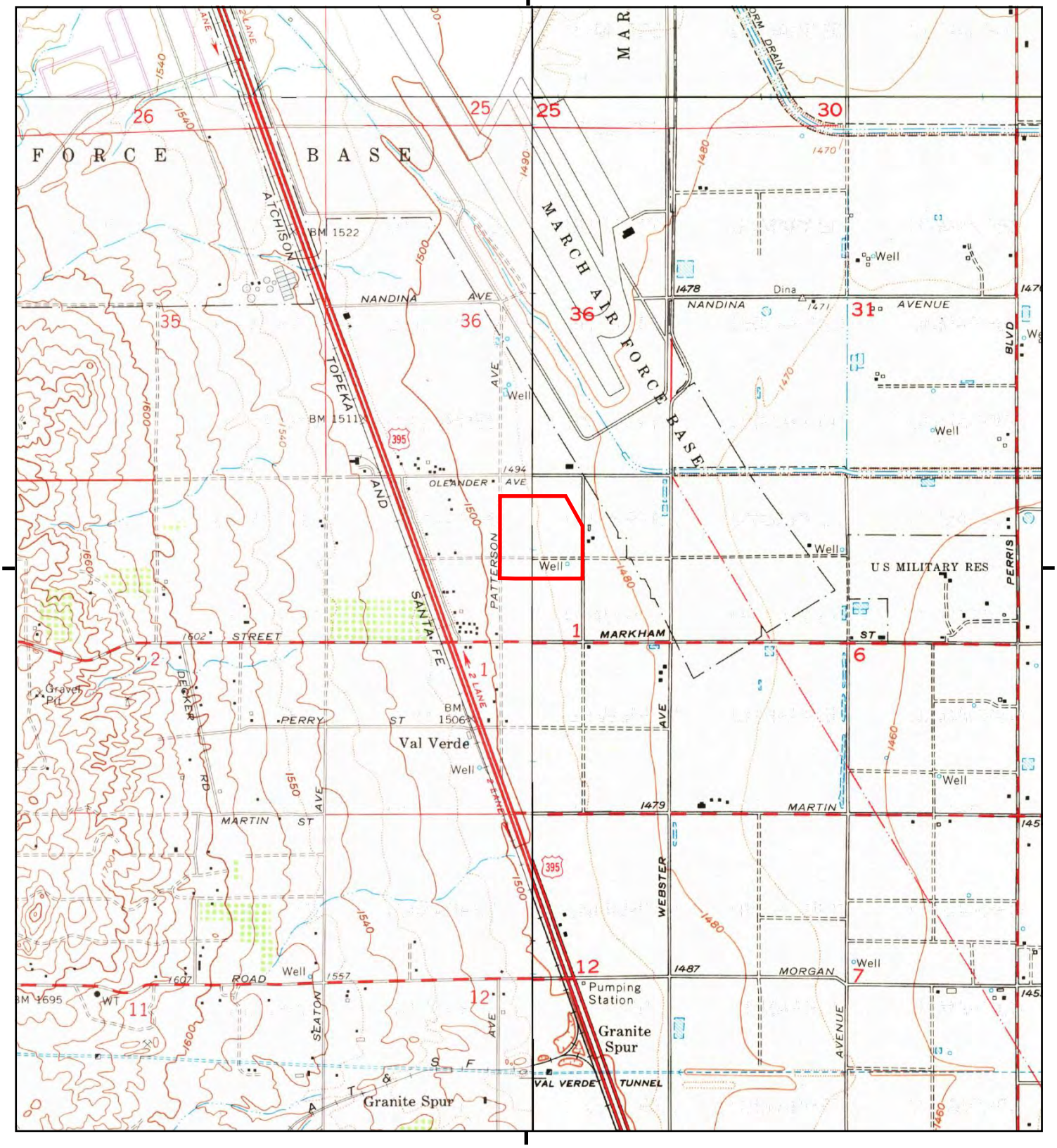
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Steele Peak, 1973, 7.5-minute
NE, Sunnymead, 1973, 7.5-minute
SE, Perris, 1973, 7.5-minute

SITE NAME: Duke - Patterson Expansion
ADDRESS: Not Reported
Perris, CA 92571
CLIENT: APEX Environmental

N



This report includes information from the following map sheet(s).

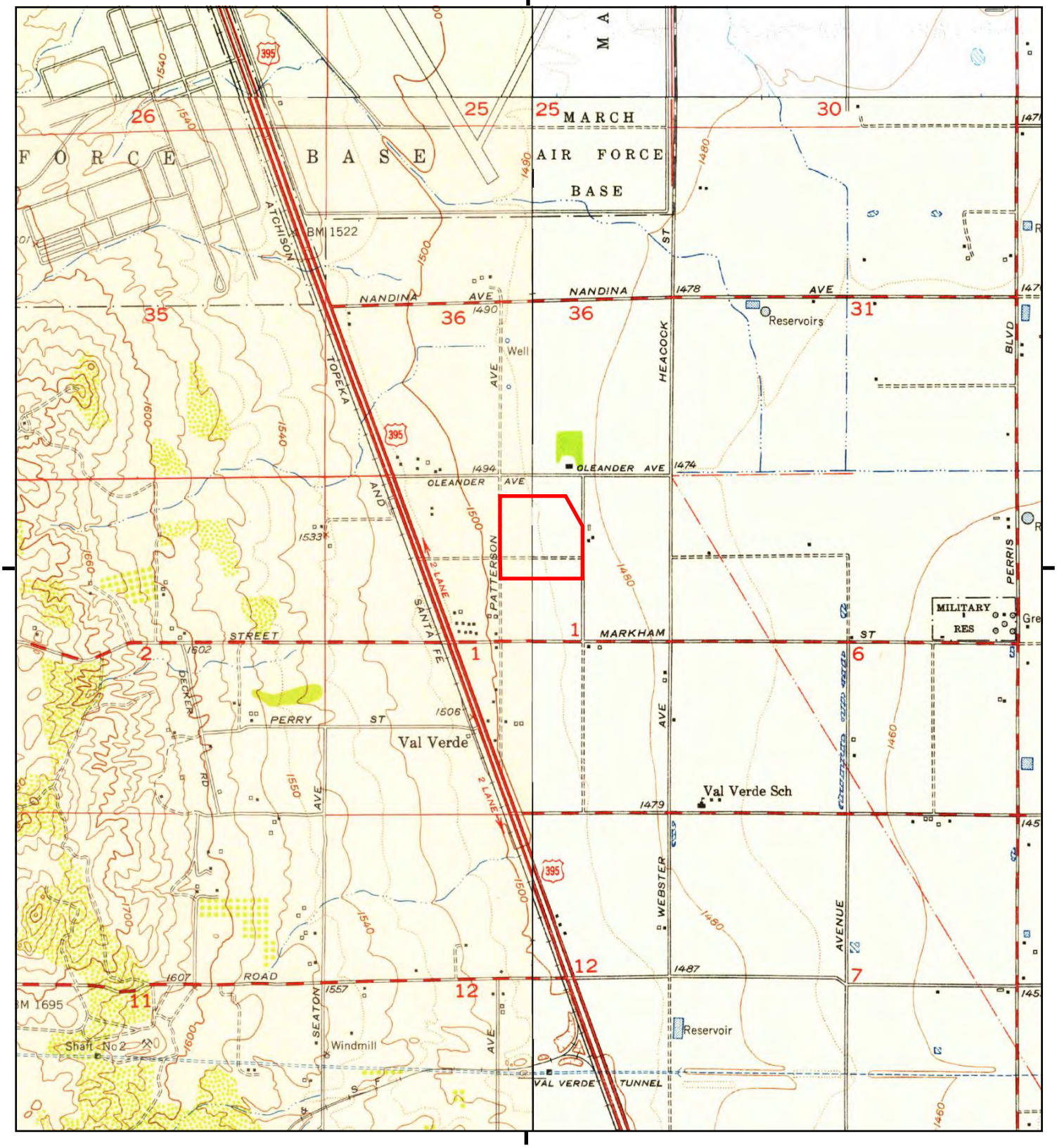
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Steele Peak, 1967, 7.5-minute
NE, Sunnymead, 1967, 7.5-minute
SE, Perris, 1967, 7.5-minute
NW, Riverside East, 1967, 7.5-minute

SITE NAME: Duke - Patterson Expansion
ADDRESS: Not Reported
Perris, CA 92571
CLIENT: APEX Environmental

N



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

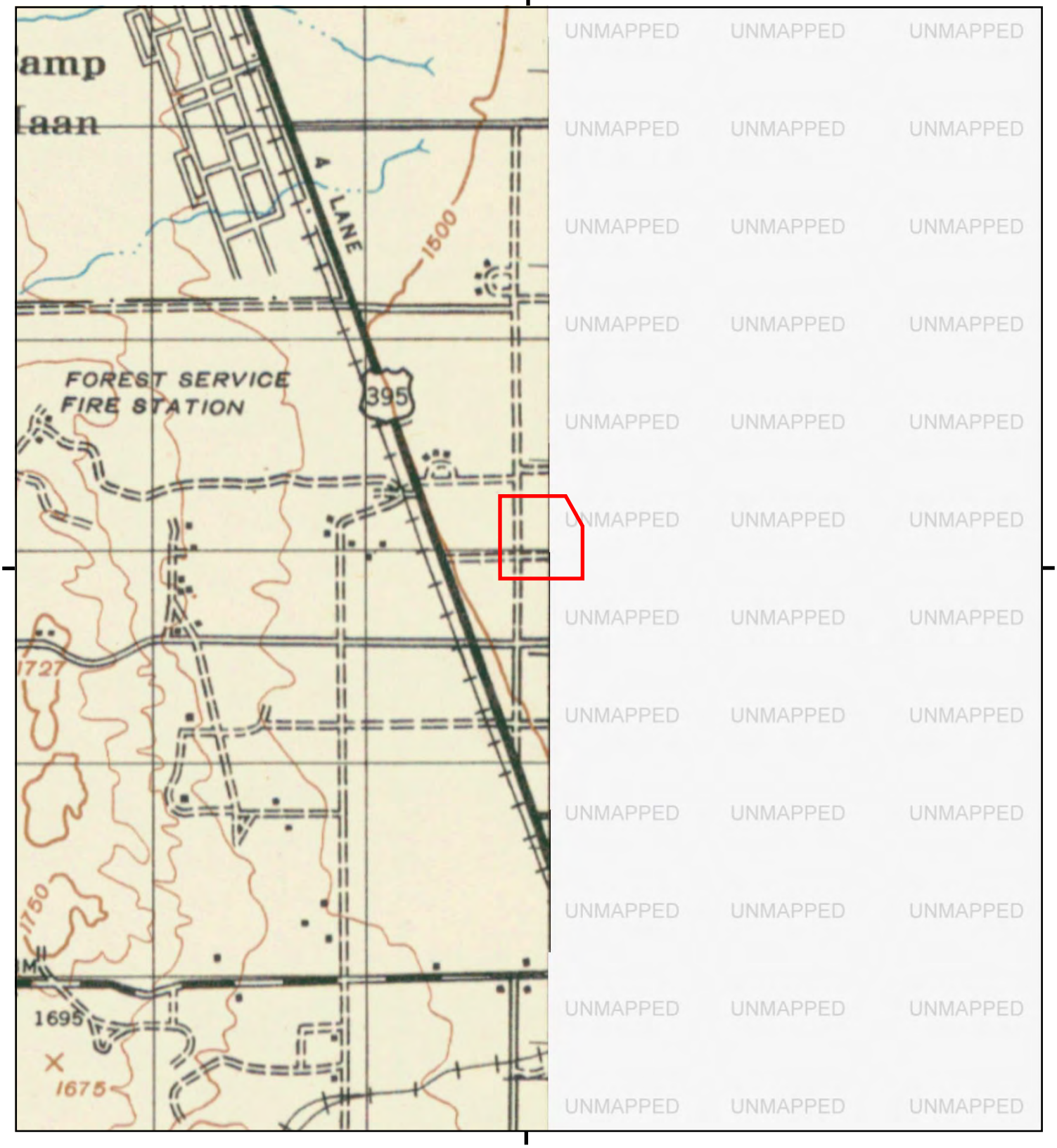
TP, Steele Peak, 1953, 7.5-minute
NE, Sunnymead, 1953, 7.5-minute
SE, Perris, 1953, 7.5-minute
NW, Riverside East, 1953, 7.5-minute

SITE NAME: Duke - Patterson Expansion
ADDRESS: Not Reported
Perris, CA 92571
CLIENT: APEX Environmental

N

Historical Topo Map

1947



This report includes information from the following map sheet(s).

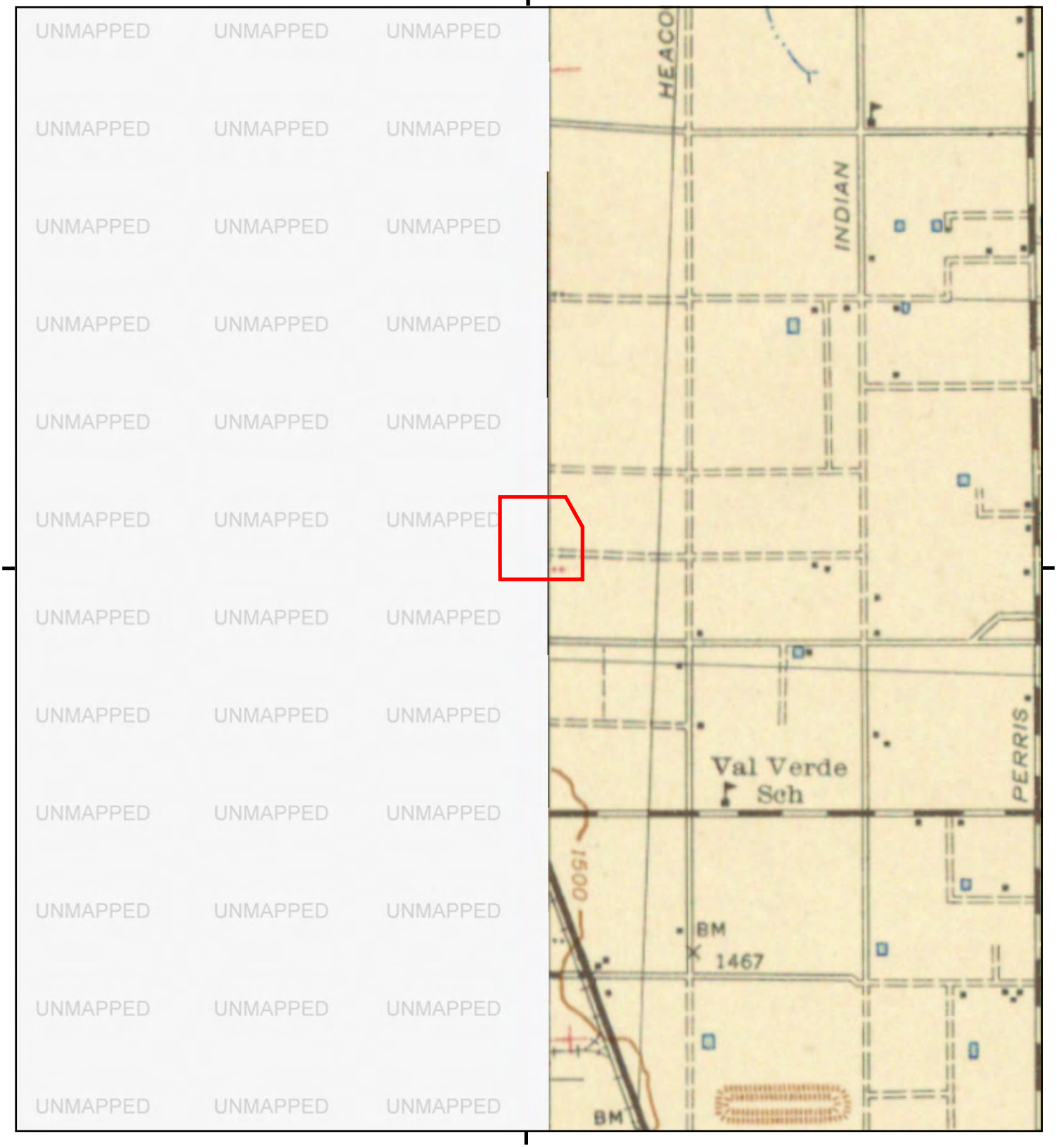
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, RIVERSIDE, 1947, 15-minute

SITE NAME: Duke - Patterson Expansion
ADDRESS: Not Reported
Perris, CA 92571
CLIENT: APEX Environmental

N



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

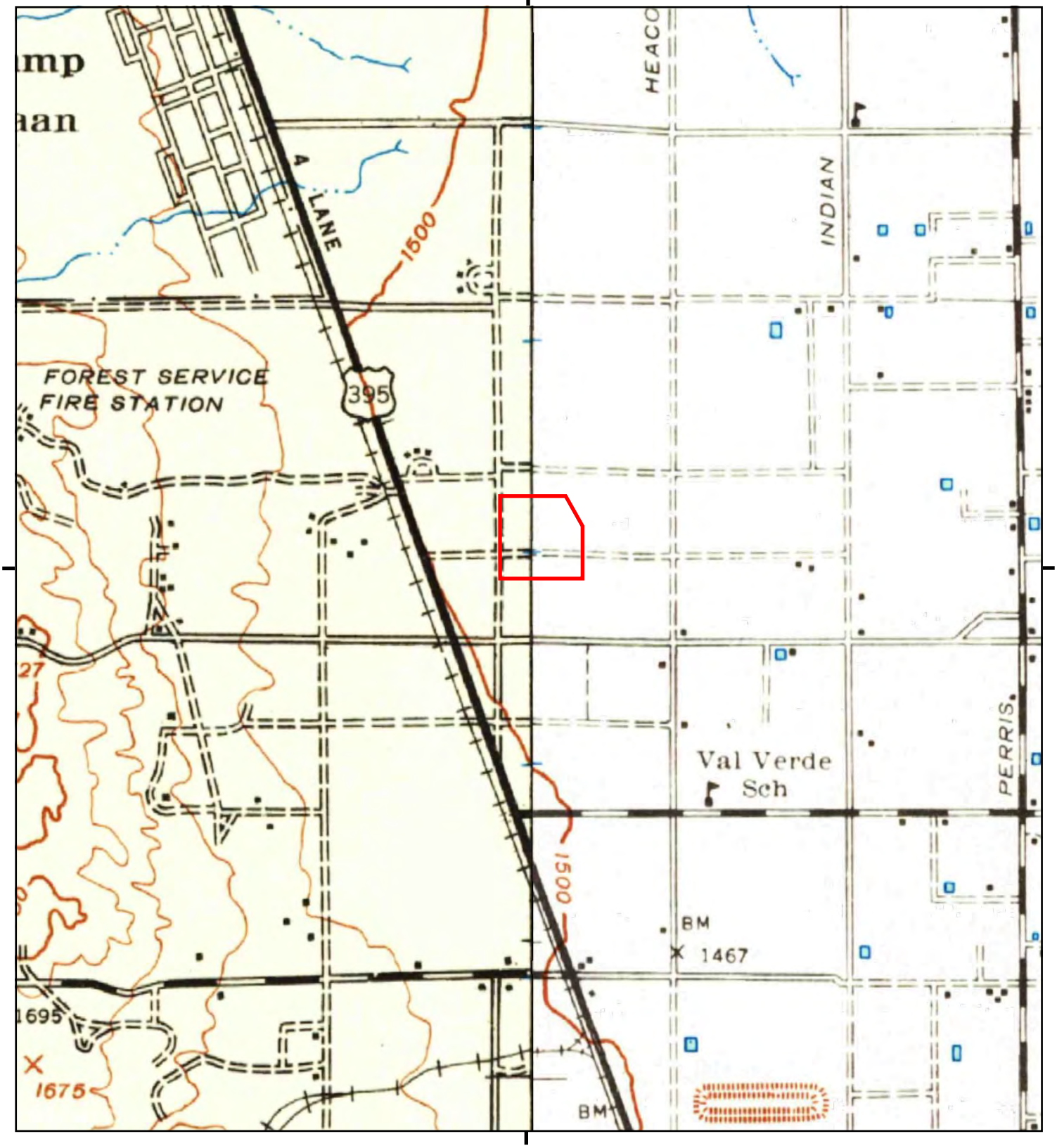
E, PERRIS, 1943, 15-minute

SITE NAME: Duke - Patterson Expansion
ADDRESS: Not Reported
Perris, CA 92571
CLIENT: APEX Environmental

N

Historical Topo Map

1942



This report includes information from the following map sheet(s).

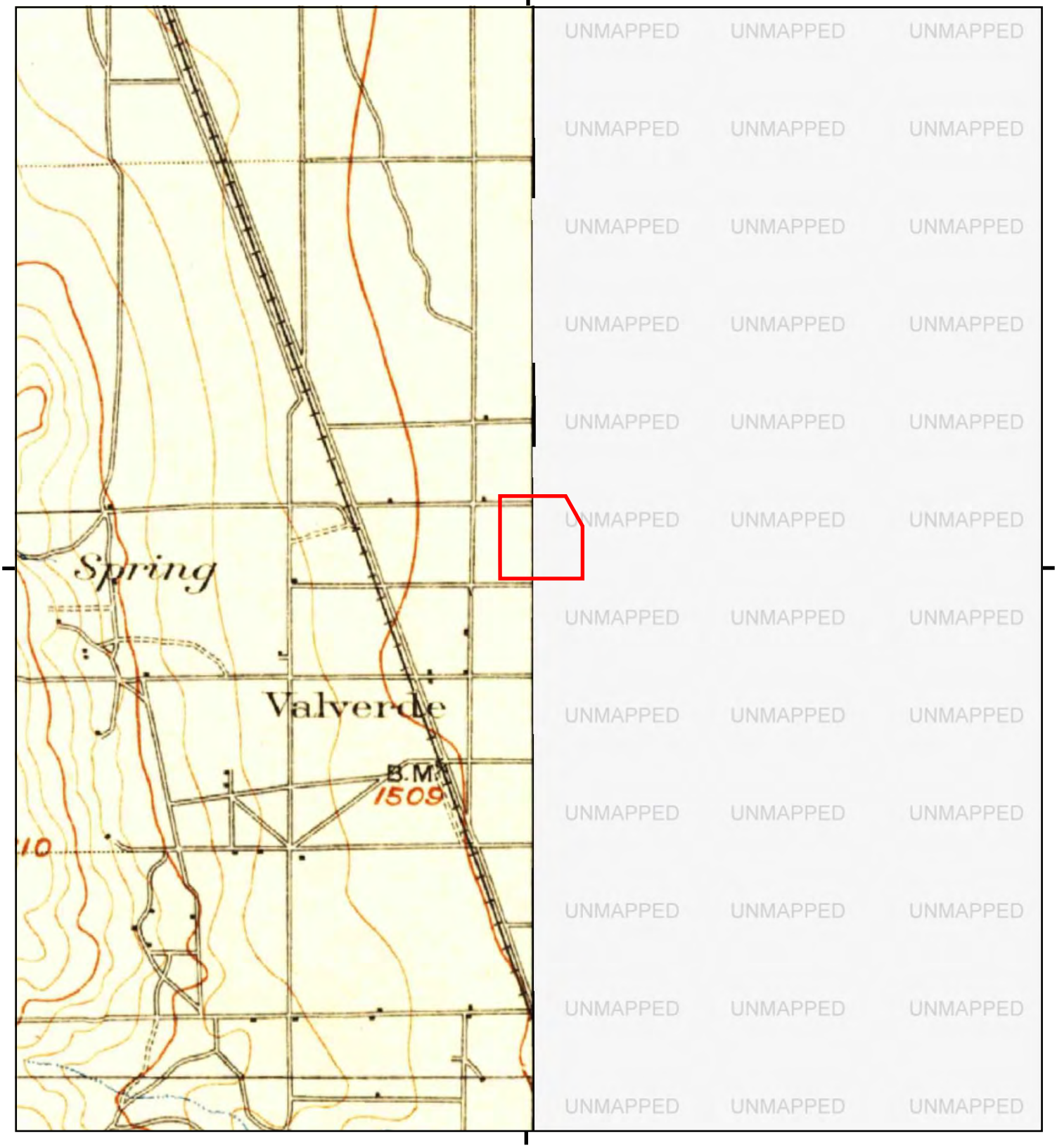
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NW N NE
W E
SW S SE

TP, Riverside, 1942, 15-minute
E, Perris, 1942, 15-minute

SITE NAME: Duke - Patterson Expansion
ADDRESS: Not Reported
Perris, CA 92571
CLIENT: APEX Environmental

N



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Riverside, 1901, 15-minute

SITE NAME: Duke - Patterson Expansion
ADDRESS: Not Reported
Perris, CA 92571
CLIENT: APEX Environmental

N

APPENDIX F

CITY DIRECTORIES REPORT

Duke - Patterson Expansion
Not Reported
Perris, CA 92571

Inquiry Number: 6641725.5
August 31, 2021

The EDR-City Directory Image Report

EDR® Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

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Findings

City Directory Images

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EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Report is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Report includes a search of available city directory data at 5 year intervals.

RECORD SOURCES

EDR's Digital Archive combines historical directory listings from sources such as Cole Information and Dun & Bradstreet. These standard sources of property information complement and enhance each other to provide a more comprehensive report.

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RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. A check mark indicates where information was identified in the source and provided in this report.

Year	Target Street	Cross Street	Source
2017	☐	☑	EDR Digital Archive
2014	☐	☑	EDR Digital Archive
2010	☐	☑	EDR Digital Archive
2005	☐	☑	EDR Digital Archive
2000	☐	☑	EDR Digital Archive
1995	☐	☑	EDR Digital Archive
1992	☐	☑	EDR Digital Archive
1985	☐	☐	Haines Criss-Cross Directory
1980	☐	☐	Haines Criss-Cross Directory
1976	☐	☐	Haines Criss-Cross Directory
1971	☐	☐	Haines Criss-Cross Directory

FINDINGS

TARGET PROPERTY STREET

Not Reported
Perris, CA 92571

No Addresses Found

FINDINGS

CROSS STREETS

Year	*CD Image*	*Source*	
W NANCE ST			
2017	pg. A1	EDR Digital Archive	
2014	pg. A2	EDR Digital Archive	
2010	pg. A3	EDR Digital Archive	
2005	pg. A4	EDR Digital Archive	
2000	pg. A5	EDR Digital Archive	
1995	pg. A6	EDR Digital Archive	
1992	pg. A7	EDR Digital Archive	
1985	-	Haines Criss-Cross Directory	Street not listed in Source
1980	-	Haines Criss-Cross Directory	Street not listed in Source
1976	-	Haines Criss-Cross Directory	Street not listed in Source
1971	-	Haines Criss-Cross Directory	Street not listed in Source

City Directory Images

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

W NANCE ST 2017

494	RAMSEY, MANUEL
753	LI, MIAGBO
845	SHILYAN, MEHRAN
1210	AQUA PLUMBING
1220	PERRIS LAKE RVBOATTRAILER STORAGE UHAUL
1260	MACOMBER, MICHAEL
1278	FREDLOV INC

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

W NANCE ST 2014

494	RAMSEY, MANUEL
753	LI, MIAGBO
953	OCCUPANT UNKNOWN,
1210	AQUA PLUMBING
1220	PERRIS LAKE RVBOATTRAILER STORAGE
1260	MACOMBER, MICHAEL
1278	FREDLOV INC
1308	HANSEN, F

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

W NANCE ST 2010

494	BARRAZA, RENALTO
845	RUTH, DAN T
953	TERAO, NIE
1220	PERRIS LAKE RVBOATTRAILER
1260	MACOMBER, MICHAEL S
1278	FREDLOV INC
1308	HANSEN, STEVEN L

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

W NANCE ST 2005

474	OCCUPANT UNKNOWN,
494	RUIZ, APOLINAR
845	RUTH, DAN T
953	TERAO, KAZUTO S
1210	TREJO, RUBEN R
1220	PERRIS LAKE RV BOAT TRAILER STORAGE
1260	MACOMBER, MICHAEL S
1278	FREDLOV INC
1308	REED, JAMES
	TOMS INSULATION

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

W NANCE ST 2000

494	DOMINGUEZ, ALFREDO
670	OCCUPANT UNKNOWN,
845	RUTH, DAN
953	HASHIZAKI, HARU J
1220	PERRIS LAKE RV BOAT TRAILER STORAGE CENTER
1260	MACOMBER, MICHAEL
1278	FREDLOV INCORPORATED
1307	OCCUPANT UNKNOWN,
1308	REED, JAMES
	TOMS INSULATION

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

W NANCE ST 1995

494 CARLS BACKHOE
550 WU, JOHN S
845 TRAVIS, OLLIE E
953 TERAO, KAZUTO
1210 OCCUPANT UNKNOWNN
1220 MACOMBER, MARION
PERRIS LAKE RV BOAT TRAILER
1260 KELLUM, MAURICE
LEONA MACOMBER
MACOMBER, WALTER
1308 TOMS INSULATION

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

W NANCE ST 1992

494 CARLS BACKHOE SERV
550 WU, JOHN S
953 TERAO, KAZUTO
1210 ROJAS, F
1220 PERRIS LK RV BOAT
1260 KELLUM, MAURICE
MACOMBER, WALTER
1278 WEST CST IRRIGTN
1308 TOMS INSULATION

APPENDIX G

BUILDING PERMITS REPORT

Duke - Patterson Expansion
Not Reported
Perris, CA 92571

Inquiry Number: 6641725.8
August 30, 2021

EDR Building Permit Report

Target Property and Adjoining Properties

Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

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Please contact EDR at 1-800-352-0050
with any questions or comments.

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EDR BUILDING PERMIT REPORT

About This Report

The EDR Building Permit Report provides a practical and efficient method to search building department records for indications of environmental conditions. Generated via a search of municipal building permit records gathered from more than 1,600 cities nationwide, this report will assist you in meeting 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), or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

Building permit data can be used to identify current and/or former operations and structures/features of environmental concern. The data can provide information on a target property and adjoining properties such as the presence of underground storage tanks, pump islands, sumps, drywells, etc., as well as information regarding water, sewer, natural gas, electrical connection dates, and current/former septic tanks.

ASTM and EPA Requirements

ASTM E 1527-13 lists building department records as a "standard historical source," as detailed in § 8.3.4.7: "Building Department Records - The term building department records means those records of the local government in which the property is located indicating permission of the local government to construct, alter, or demolish improvements on the property." ASTM also states that "Uses in the area surrounding the property shall be identified in the report, but this task is required only to the extent that this information is revealed in the course of researching the property itself."

EPA's Standards and Practices for All Appropriate Inquires (AAI) states: "§312.24: Reviews of historical sources of information. (a) Historical documents and records must be reviewed for the purposes of achieving the objectives and performance factors of §312.20(e) and (f). Historical documents and records may include, but are not limited to, aerial photographs, fire insurance maps, building department records, chain of title documents, and land use records."

Methodology

EDR has developed the EDR Building Permit Report through our partnership with BuildFax, the nation's largest repository of building department records. BuildFax collects, updates, and manages building department records from local municipal governments. The database now includes 30 million permits, on more than 10 million properties across 1,600 cities in the United States.

The EDR Building Permit Report comprises local municipal building permit records, gathered directly from local jurisdictions, including both target property and adjoining properties. Years of coverage vary by municipality. Data reported includes (where available): date of permit, permit type, permit number, status, valuation, contractor company, contractor name, and description.

Incoming permit data is checked at seven stages in a regimented quality control process, from initial data source interview, to data preparation, through final auditing. To ensure the building department is accurate, each of the seven quality control stages contains, on average, 15 additional quality checks, resulting in a process of approximately 105 quality control "touch points."

For more information about the EDR Building Permit Report, please contact your EDR Account Executive at (800) 352-0050.

EDR® Environmental Data Resources Inc

BUILD FAX PROPERTY HISTORY

EXECUTIVE SUMMARY: SEARCH DOCUMENTATION

A search of building department records was conducted by Environmental Data Resources, Inc (EDR) on behalf of APEX Environmental on Aug 30, 2021.

TARGET PROPERTY

Not Reported
Perris, CA 92571

SEARCH METHODS

EDR searches available lists for both the Target Property and Surrounding Properties.

RESEARCH SUMMARY

Building permits identified: **NO PERMITS IDENTIFIED**

The following research sources were consulted in the preparation of this report. An "X" indicates where information was identified in the source and provided in this report.

Name: JurisdictionName
Years: Years
Source: Source
Phone: Phone

BUILDING DEPARTMENT RECORDS SEARCHED

Name: Riverside County
Years: 1963-2021
Source: Riverside County, Building and Safety, RIVERSIDE, CA
Phone: (951) 955-6742

Name: Perris
Years: 1964-2021
Source: City of Perris, Development Services, PERRIS, CA
Phone: (951) 443-1029

TARGET PROPERTY FINDINGS

TARGET PROPERTY DETAIL

Not Reported
Perris, CA 92571

No Permits Found

ADJOINING PROPERTY FINDINGS

ADJOINING PROPERTY DETAIL

The following Adjoining Property addresses were researched for this report. Detailed findings are provided for each address.

No Permits Found

GLOSSARY

General Building Department concepts

- **ICC:** The International Code Council. The governing body for the building/development codes used by all jurisdictions who've adopted the ICC guidelines. MOST of the US has done this. Canada, Mexico, and other countries use ICC codes books and guides as well. There are a few states who have added guidelines to the ICC codes to better fit their needs. For example, California has added seismic retrofit requirements for most commercial structures.
- **Building Department (Permitting Authority, Building Codes, Inspections Department, Building and Inspections):** This is the department in a jurisdiction where an owner or contractor goes to obtain permits and inspections for building, tearing down, remodeling, adding to, re-roofing, moving or otherwise making changes to any structure, Residential or Commercial.
- **Jurisdiction:** This is the geographic area representing the properties over which a Permitting Authority has responsibility.
- **GC:** General Contractor. Usually the primary contractor hired for any Residential or Commercial construction work.
- **Sub:** Subordinate contracting companies or subcontractors. Usually a "trades" contractor working for the GC. These contractors generally have an area of expertise in which they are licensed like Plumbing, Electrical, Heating and Air systems, Gas Systems, Pools etc. (called "trades").
- **Journeymen:** Sub contractors who have their own personal licenses in one or more trades and work for different contracting companies, wherever they are needed or there is work.
- **HVAC (Mechanical, Heating & Air companies):** HVAC = Heating, Ventilation, and Air Conditioning.
- **ELEC (Electrical, TempPole, TPole, TPower, Temporary Power, Panel, AMP Change, Power Release):** Electrical permits can be pulled for many reasons. The most common reason is to increase the AMPs of power in an electrical power panel. This requires a permit in almost every jurisdiction. Other commons reason for Electrical permits is to insert a temporary power pole at a new construction site. Construction requires electricity, and in a new development, power has yet to be run to the lot. The temporary power pole is usually the very first permit pulled for new development. The power is released to the home owner when construction is complete and this sometimes takes the form of a Power Release permit or inspection.
- **"Pull" a permit:** To obtain and pay for a building permit.
- **CBO:** Chief Building Official
- **Planning Department:** The department in the development process where the building /structural plans are reviewed for their completeness and compliance with building codes
- **Zoning Department:** The department in the development process where the site plans are reviewed for their compliance with the regulations associated with the zoning district in which they are situated.
- **Zoning District:** A pre-determined geographic boundary within a jurisdiction where certain types of structures are permitted / prohibited. Examples are Residential structure, Commercial/Retail structures, Industrial/Manufacturing structures etc. Each zoning district has regulations associated with it like the sizes of the lots, the density of the structures on the lots, the number of parking spaces required for certain types of structures on the lots etc.
- **PIN (TMS, GIS ID, Parcel#):** Property Identification Number and Tax Map System number.
- **State Card (Business license):** A license card issued to a contractor to conduct business.
- **Building Inspector (Inspector):** The inspector is a building department employee that inspects building construction for compliance to codes.
- **C.O.:** Certificate of Occupancy. This is the end of the construction process and designates that the owners now have permission to occupy a structure after its building is complete. Sometimes also referred to as a Certificate of Compliance.

GLOSSARY

Permit Content Definitions

- Permit Number: The alphanumerical designation assigned to a permit for tracking within the building department system. Sometimes the permit number gives clues to its role, e.g. a "PL" prefix may designate a plumbing permit.
- Description: A field on the permit form that allows the building department to give a brief description of the work being done. More often than not, this is the most important field for EP's to find clues to the prior use (s) of the property.
- Permit Type: Generally a brief designation of the type of job being done. For example BLDG-RES, BLDG-COM, ELEC, MECH etc.

Sample Building Permit Data

Date: Nov 09, 2000
Permit Type: Bldg -
New Permit Number: 101000000405
Status: Valuation: $1,000,000.00
Contractor Company: OWNER-BUILDER
Contractor Name:

Description: New one store retail (SAV-ON) with drive-thru pharmacy. Certificate of Occupancy.

APPENDIX H

PROPERTY TAX MAP

Duke - Patterson Expansion
Not Reported
Perris, CA 92571

Inquiry Number: 6641725.6
August 30, 2021

The EDR Property Tax Map Report

EDR® Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

EDR Property Tax Map Report

Environmental Data Resources, Inc.'s EDR Property Tax Map Report is designed to assist environmental professionals in evaluating potential environmental conditions on a target property by understanding property boundaries and other characteristics. The report includes a search of available property tax maps, which include information on boundaries for the target property and neighboring properties, addresses, parcel identification numbers, as well as other data typically used in property location and identification.

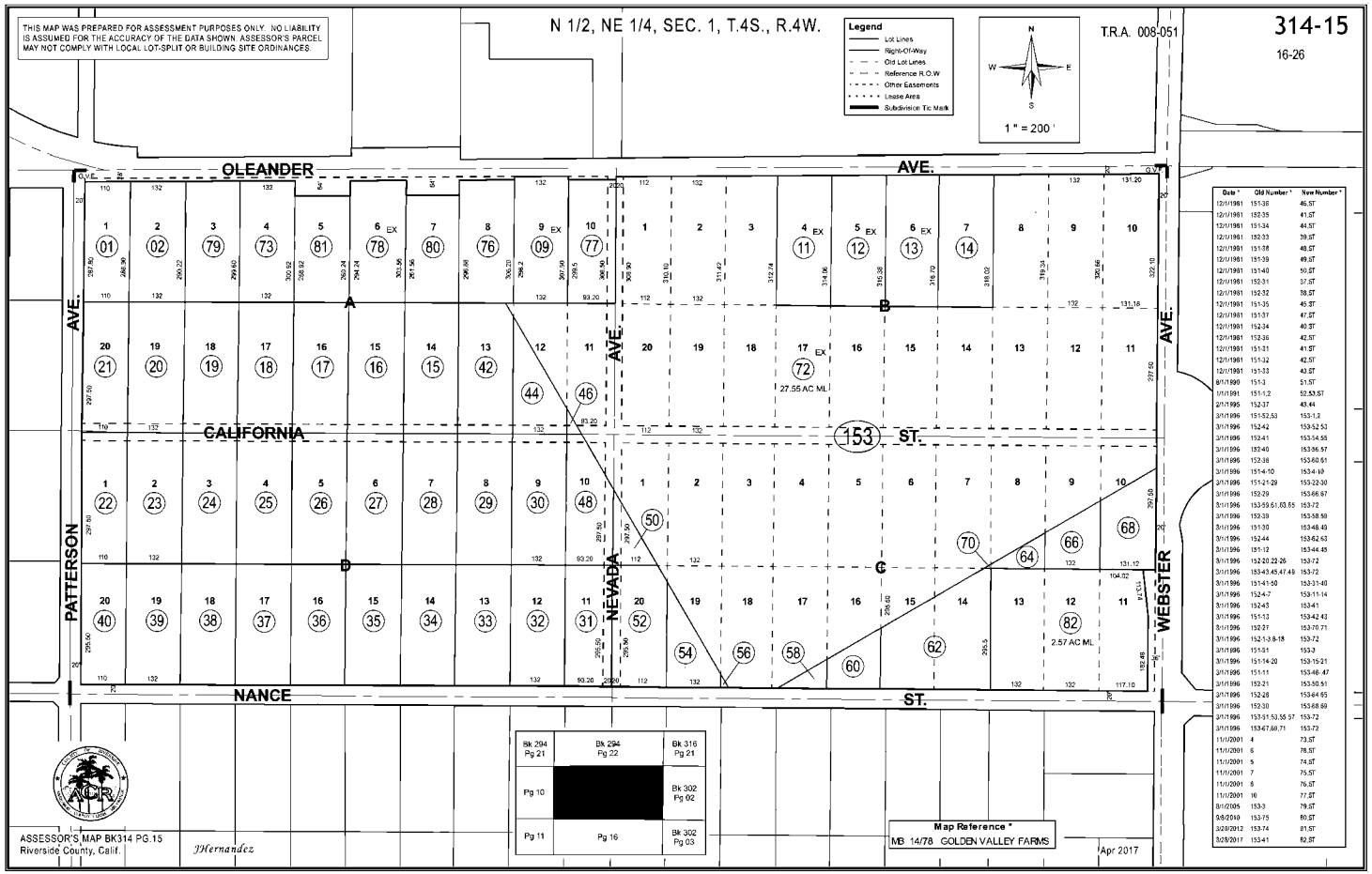
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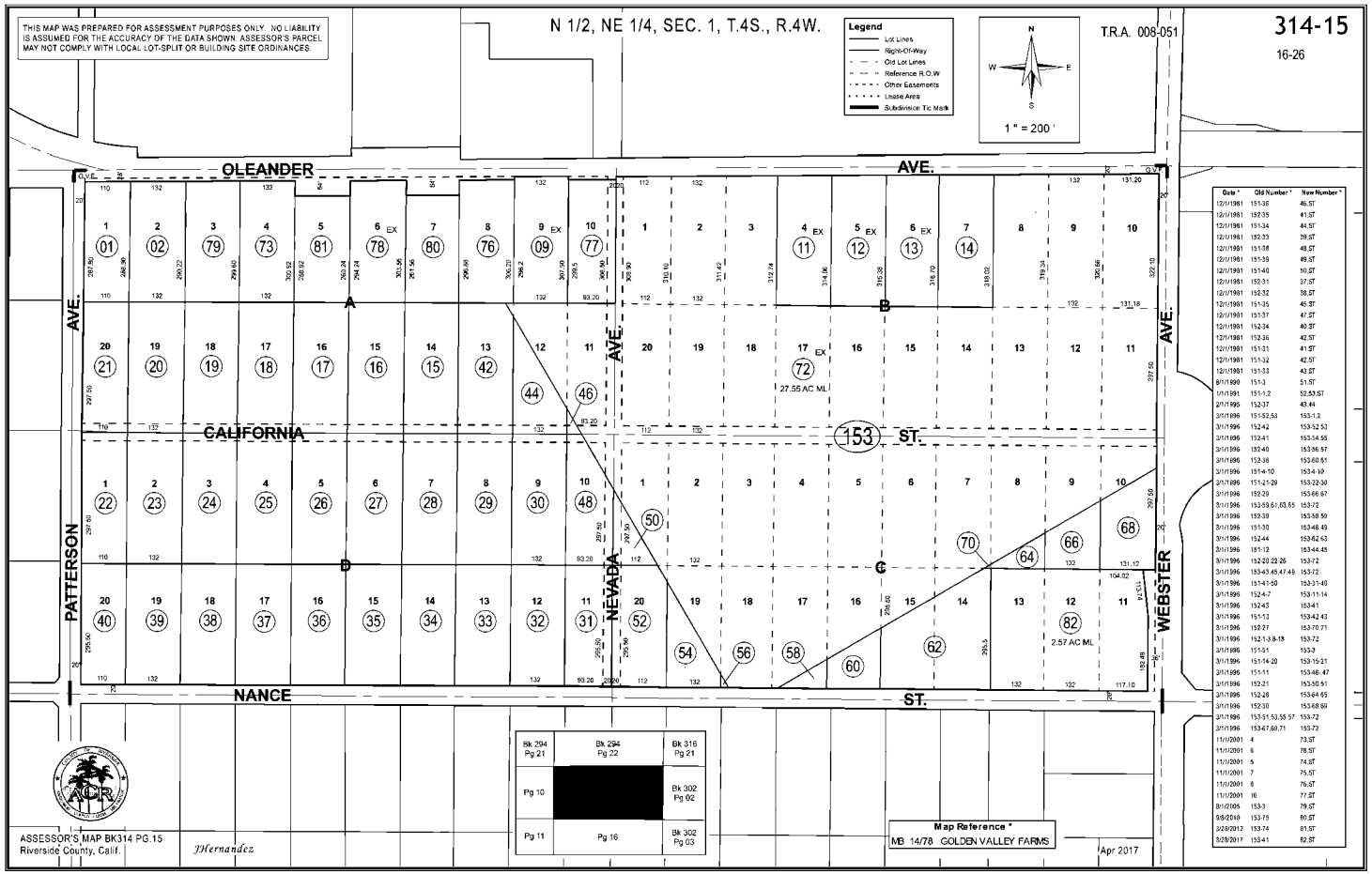
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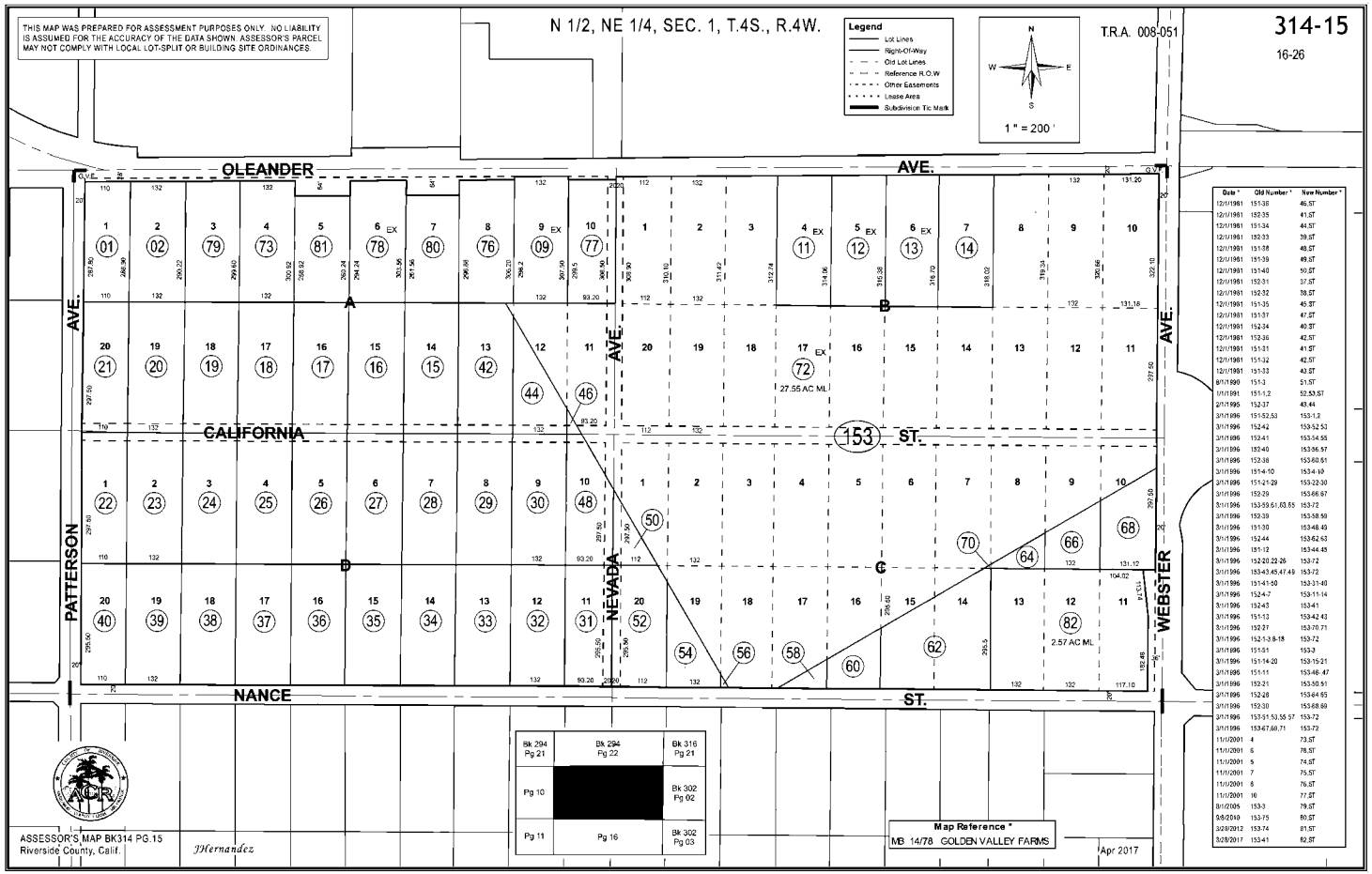
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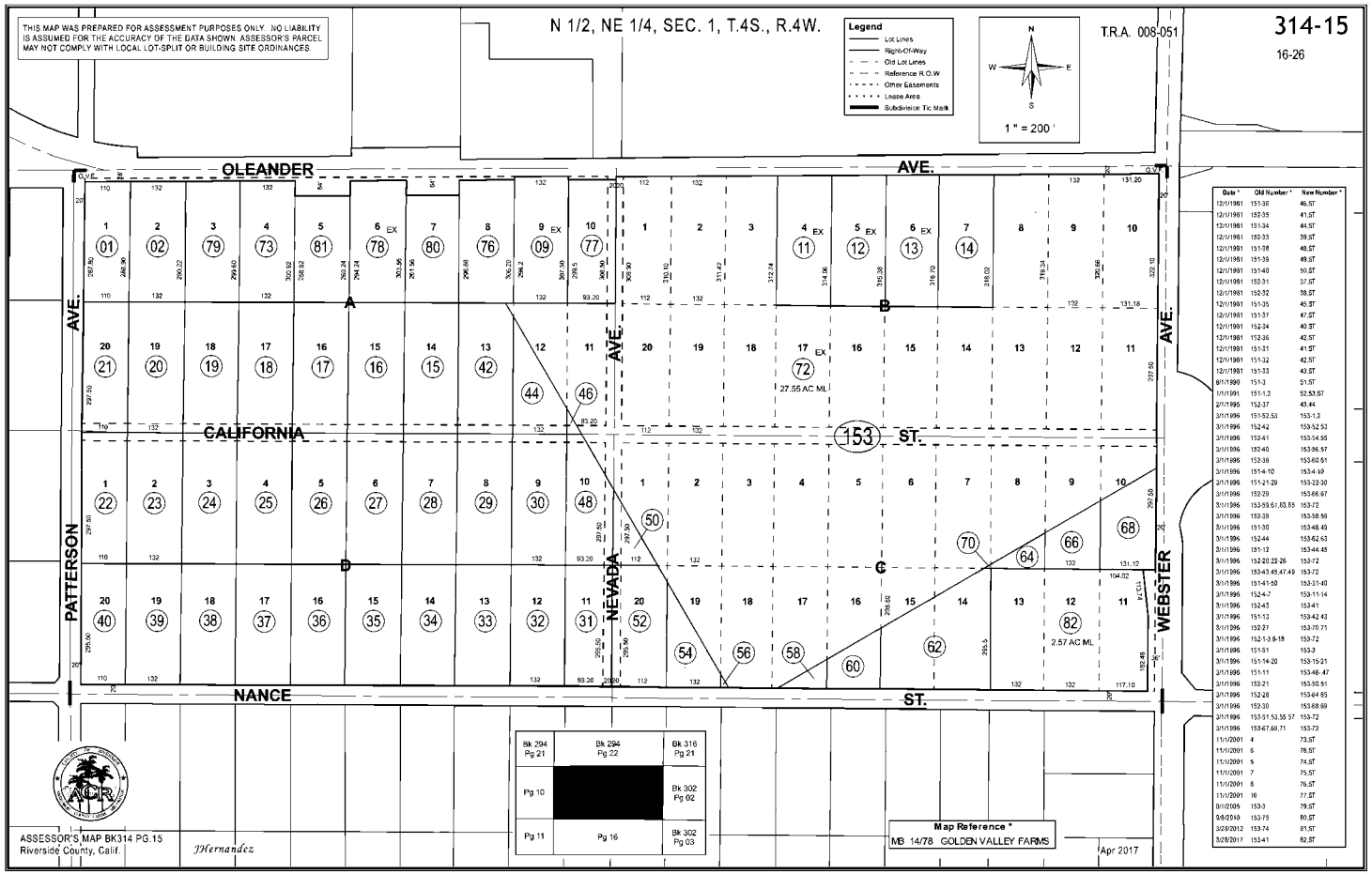
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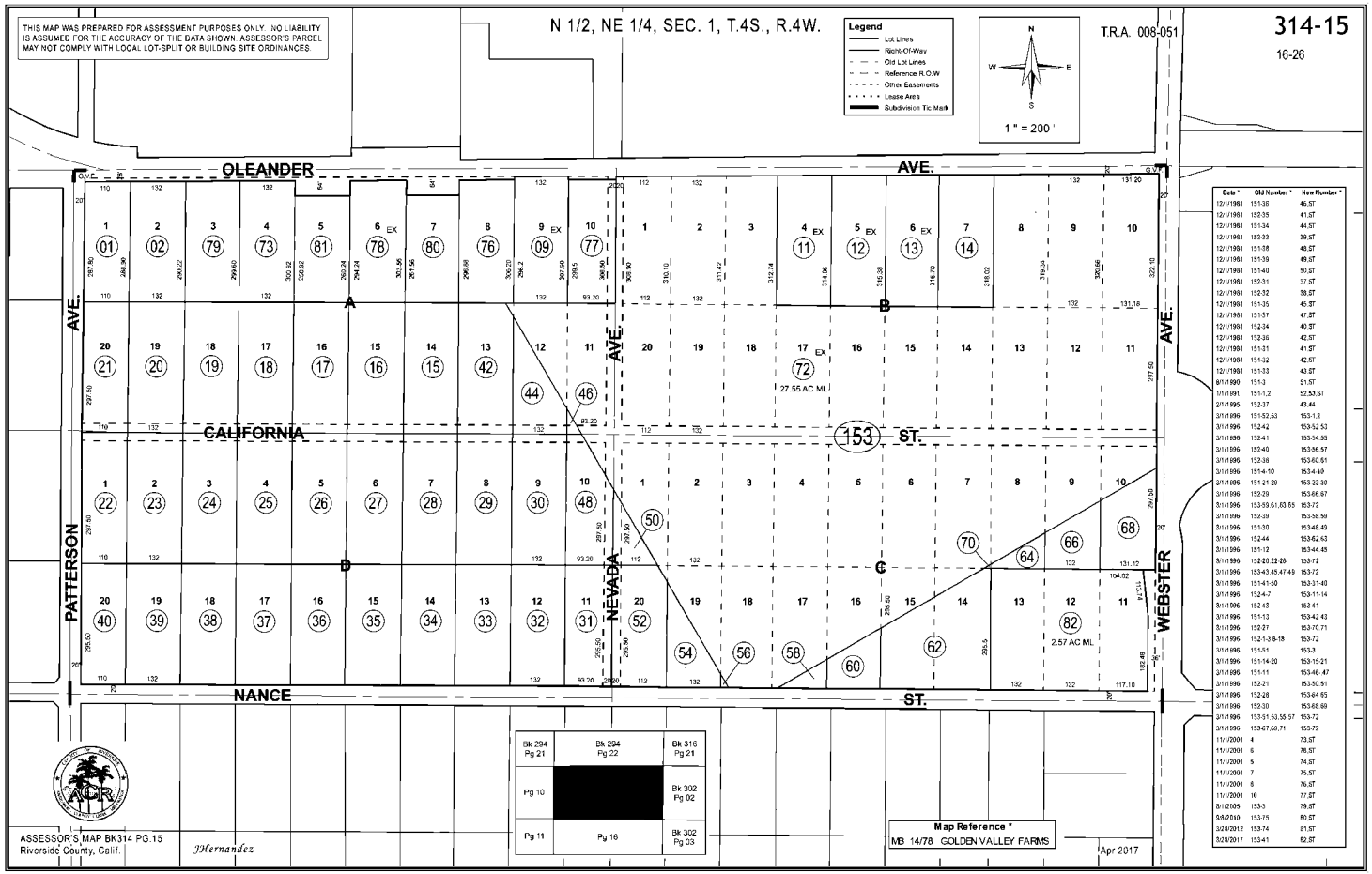


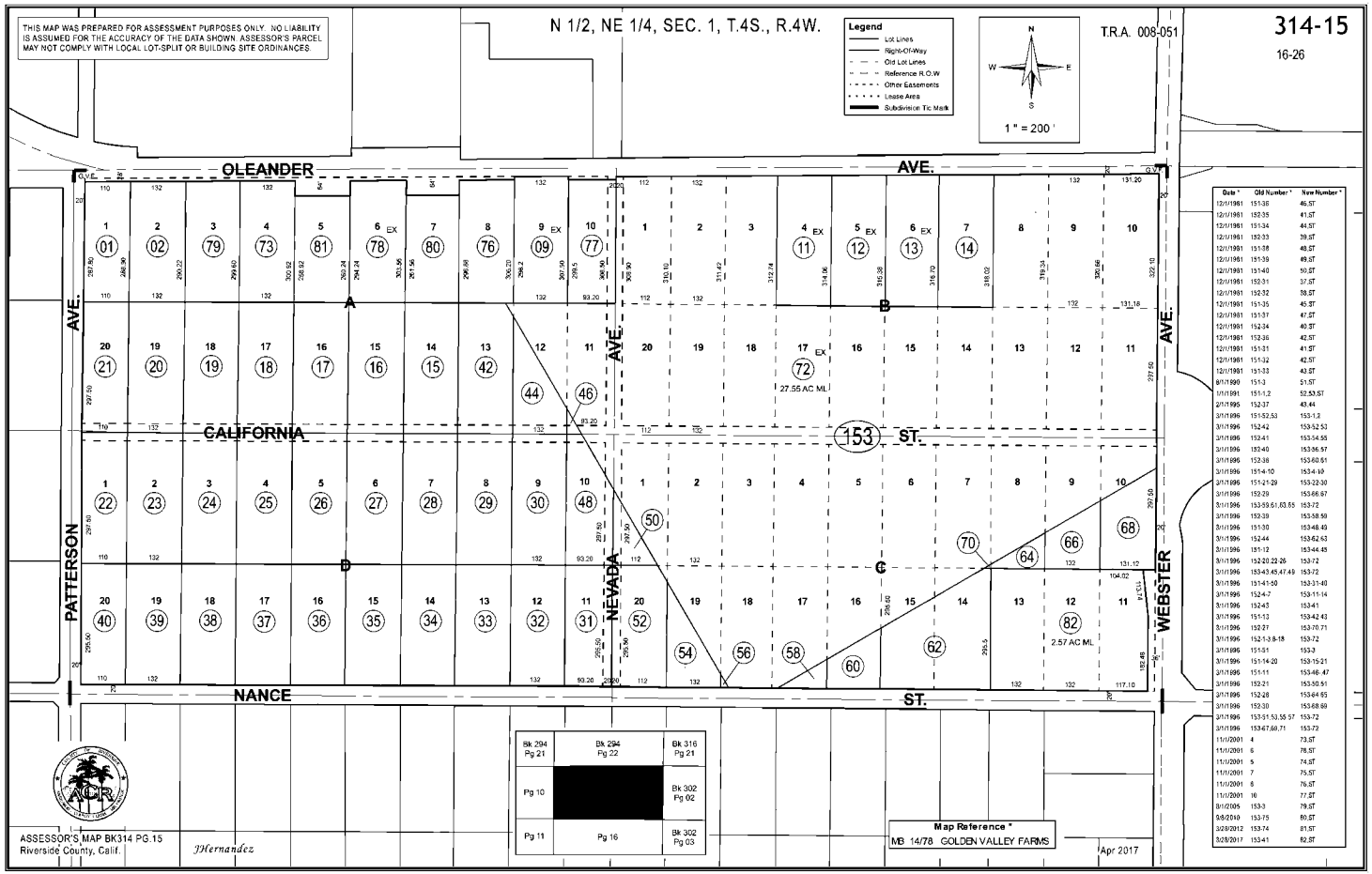
Date *	Old Number *	New Number *
12/1/1961	151-38	46.ST
12/1/1961	152-35	41.ST
12/1/1961	151-34	44.ST
12/1/1961	152-33	39.ST
12/1/1961	151-38	48.ST
12/1/1961	151-39	49.ST
12/1/1961	151-40	50.ST
12/1/1961	152-31	37.ST
12/1/1961	152-32	38.ST
12/1/1961	151-35	45.ST
12/1/1961	151-37	47.ST
12/1/1961	152-34	40.ST
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12/1/1961	151-31	41.ST
12/1/1961	151-32	42.ST
12/1/1961	151-33	43.ST
8/1/1990	151-3	51.ST
1/1/1991	151-1,2	52,53.ST
2/1/1995	152-37	43.44
3/1/1996	151-52,53	153-1,2
3/1/1996	152-42	153-52,53
3/1/1996	152-41	153-54,55
3/1/1996	152-40	153-56,57
3/1/1996	152-38	153-60,61
3/1/1996	151-4-10	153-4-10
3/1/1996	151-21-29	153-22-30
3/1/1996	152-29	153-66,67
3/1/1996	153-59,61,63,65	153-72
3/1/1996	152-39	153-58,59
3/1/1996	151-30	153-48,49
3/1/1996	152-44	153-62,63
3/1/1996	151-12	153-44,45
3/1/1996	152-20,22,26	153-72
3/1/1996	153-43,45,47,49	153-72
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3/1/1996	152-4-7	153-11-14
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3/1/1996	152-27	153-70,71
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3/1/1996	153-51,53,55,57	153-72
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11/1/2001	6	78.ST
11/1/2001	5	74.ST
11/1/2001	7	75.ST
11/1/2001	8	76.ST
11/1/2001	10	77.ST
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3/28/2012	153-74	81.ST
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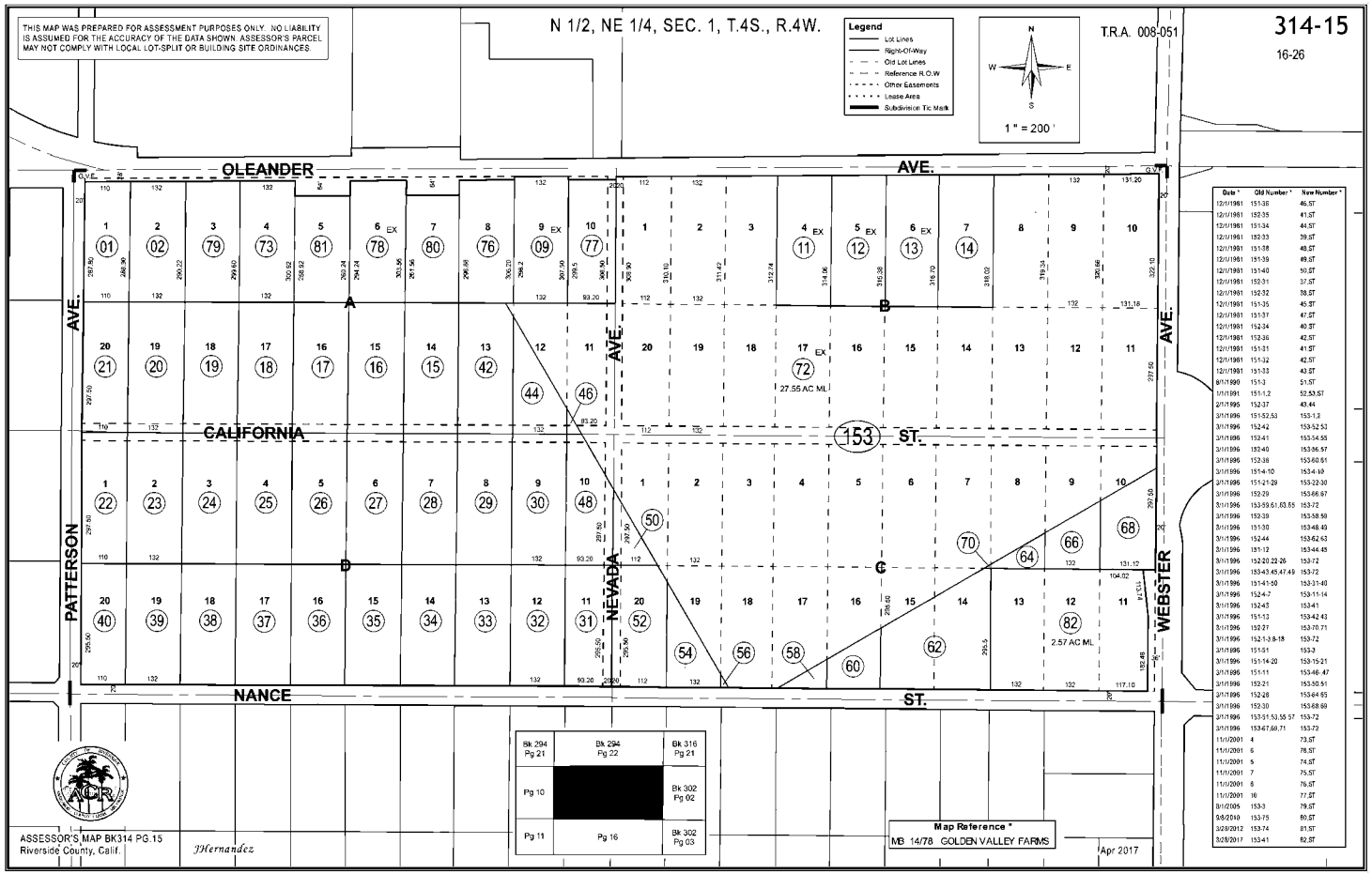

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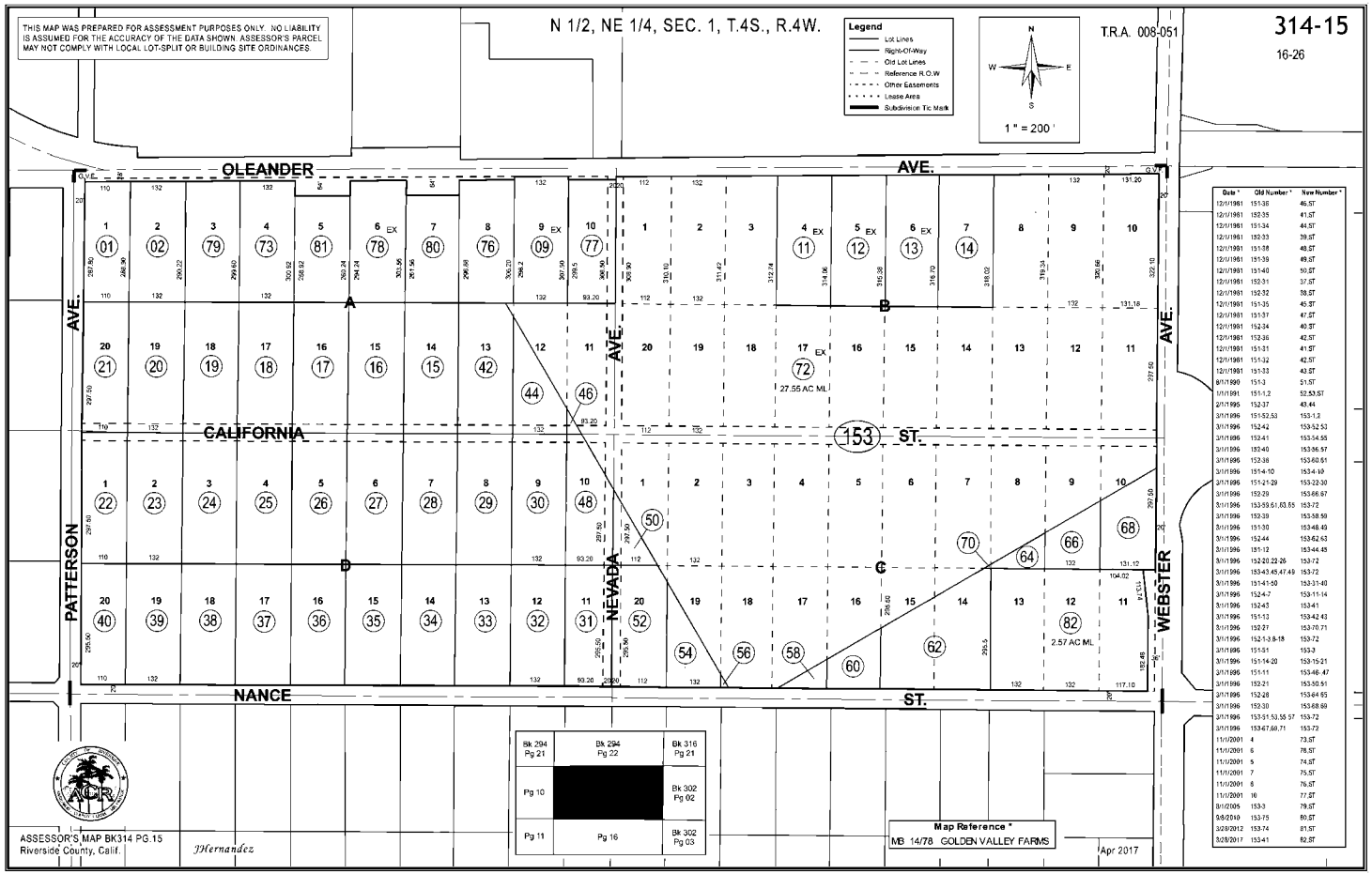

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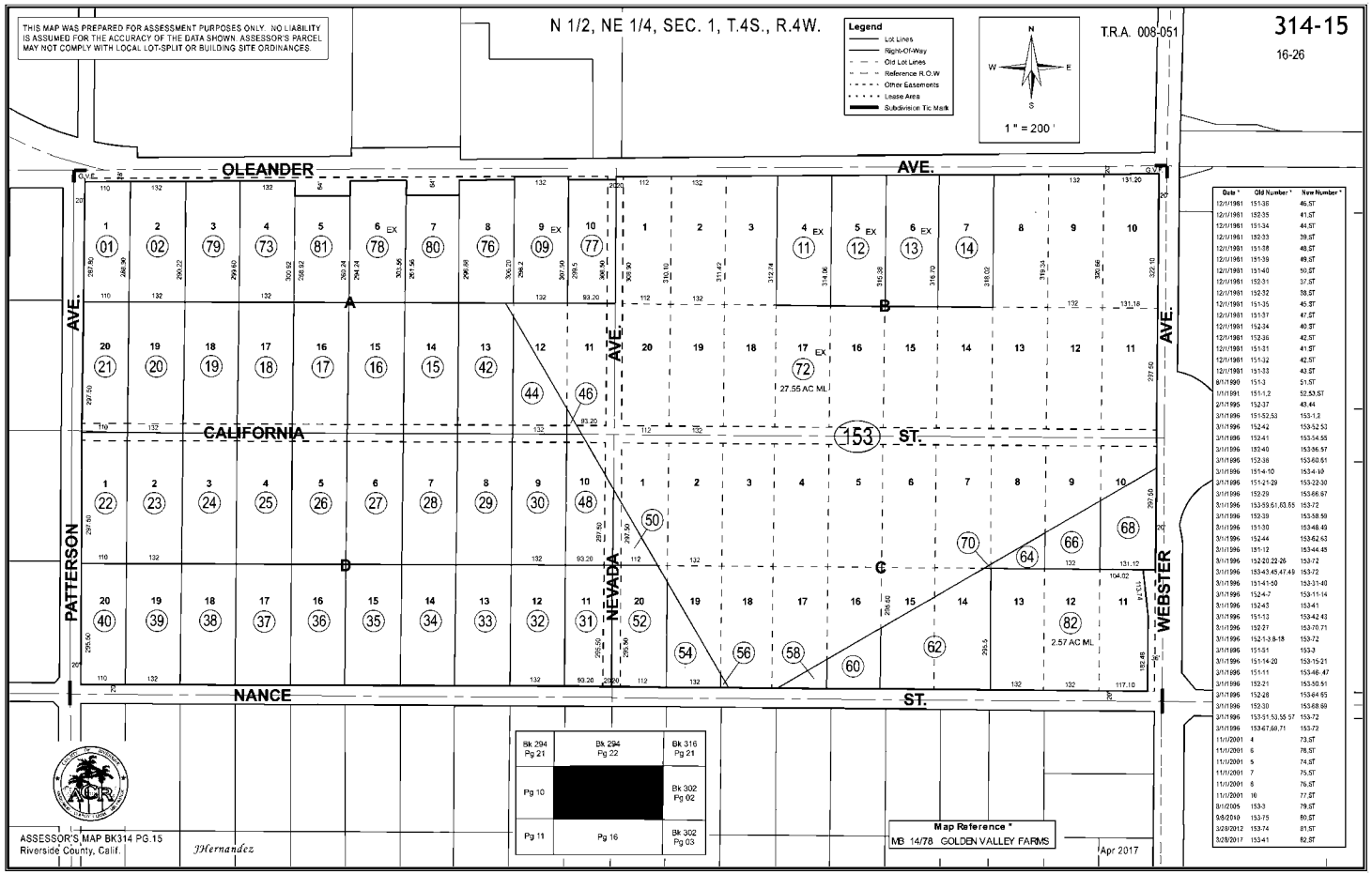

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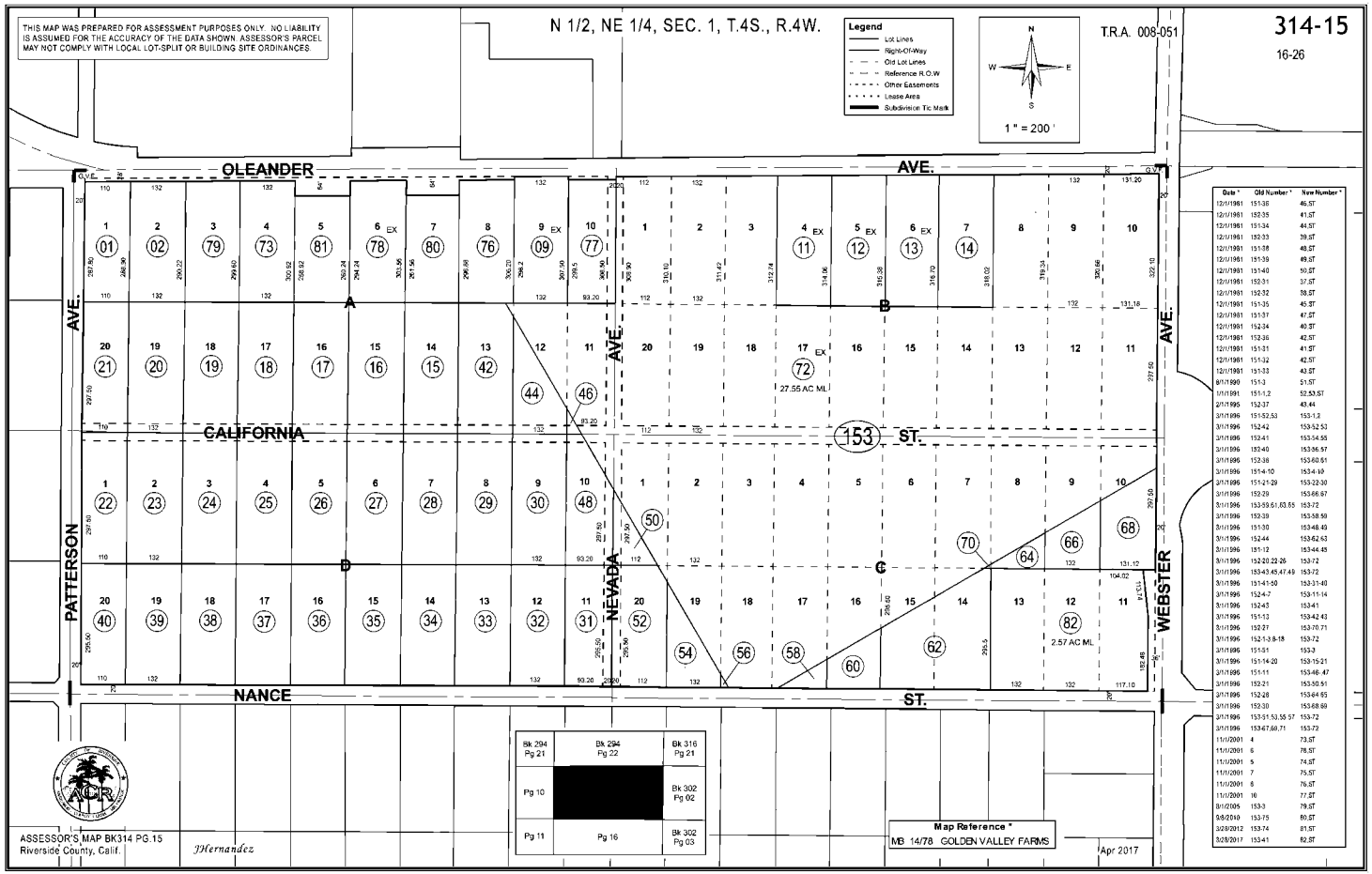

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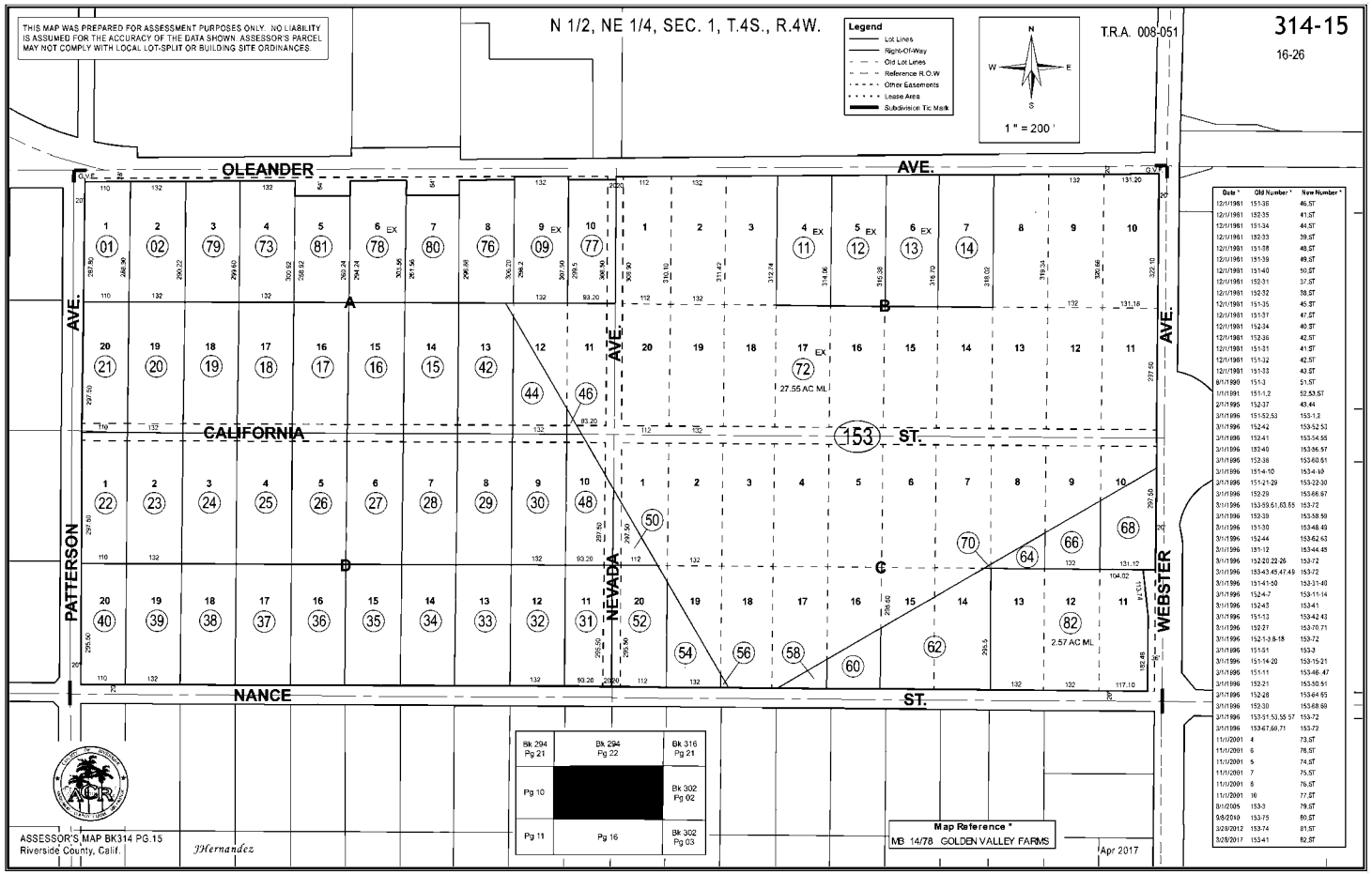

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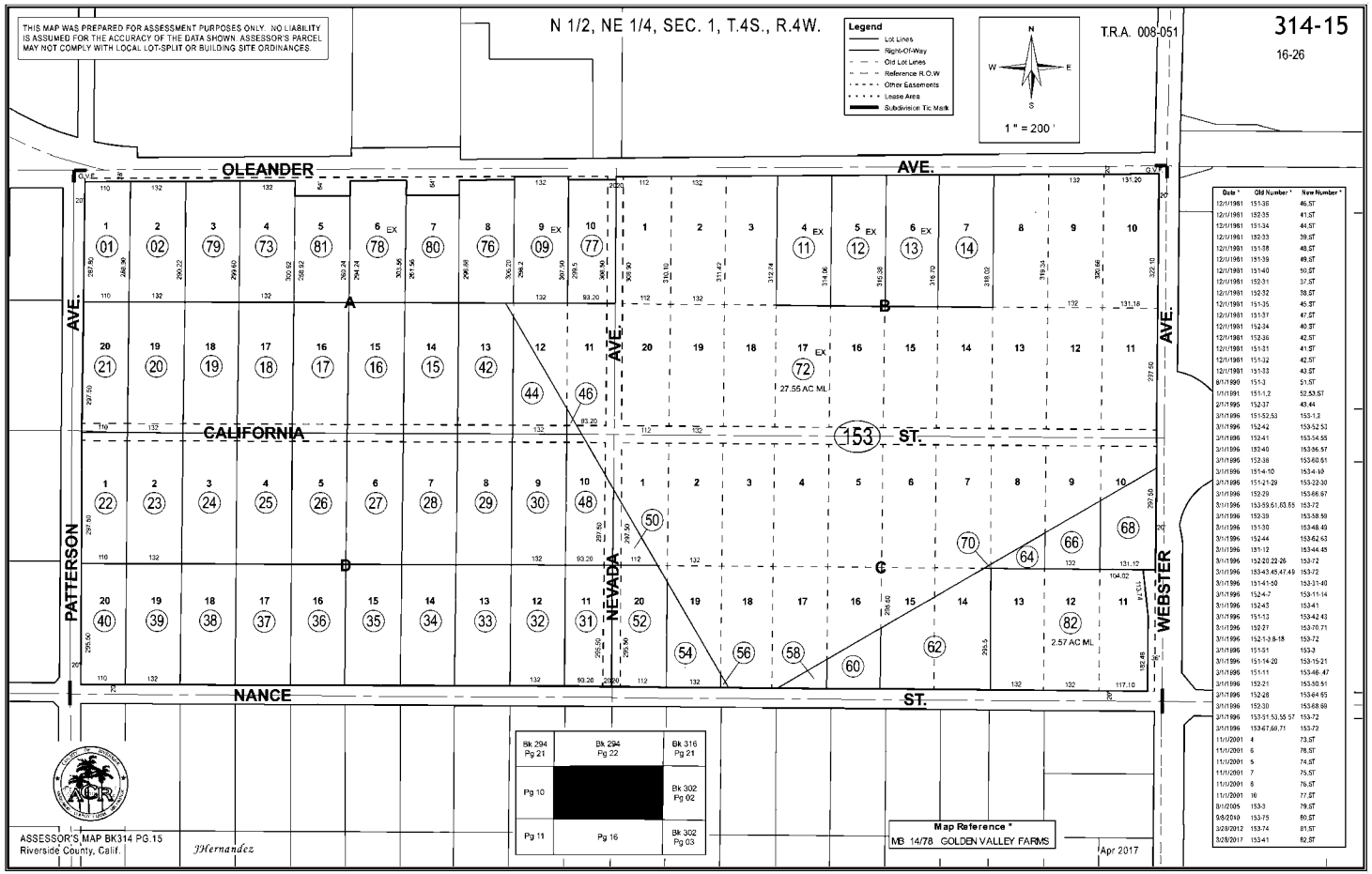

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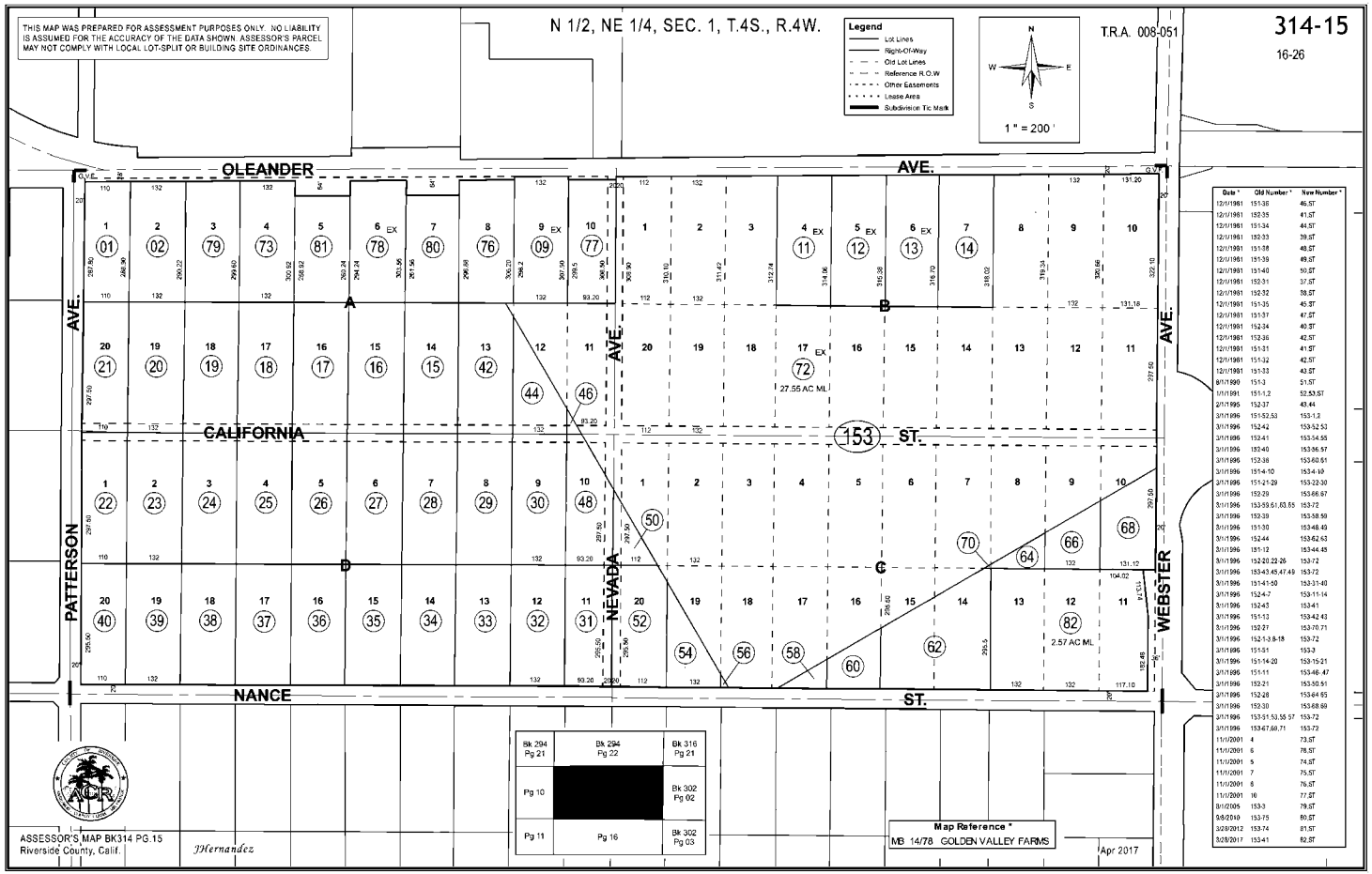

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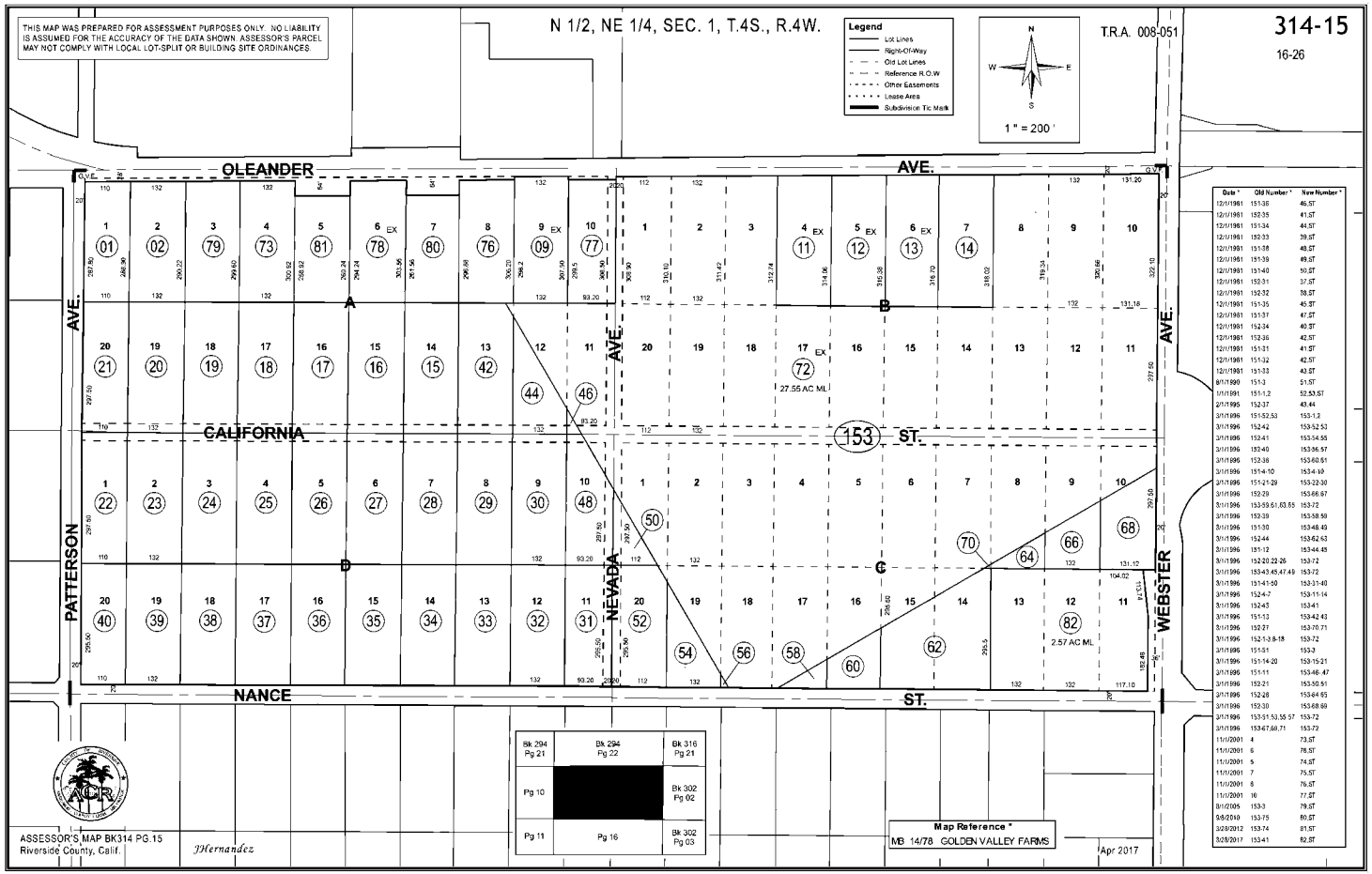

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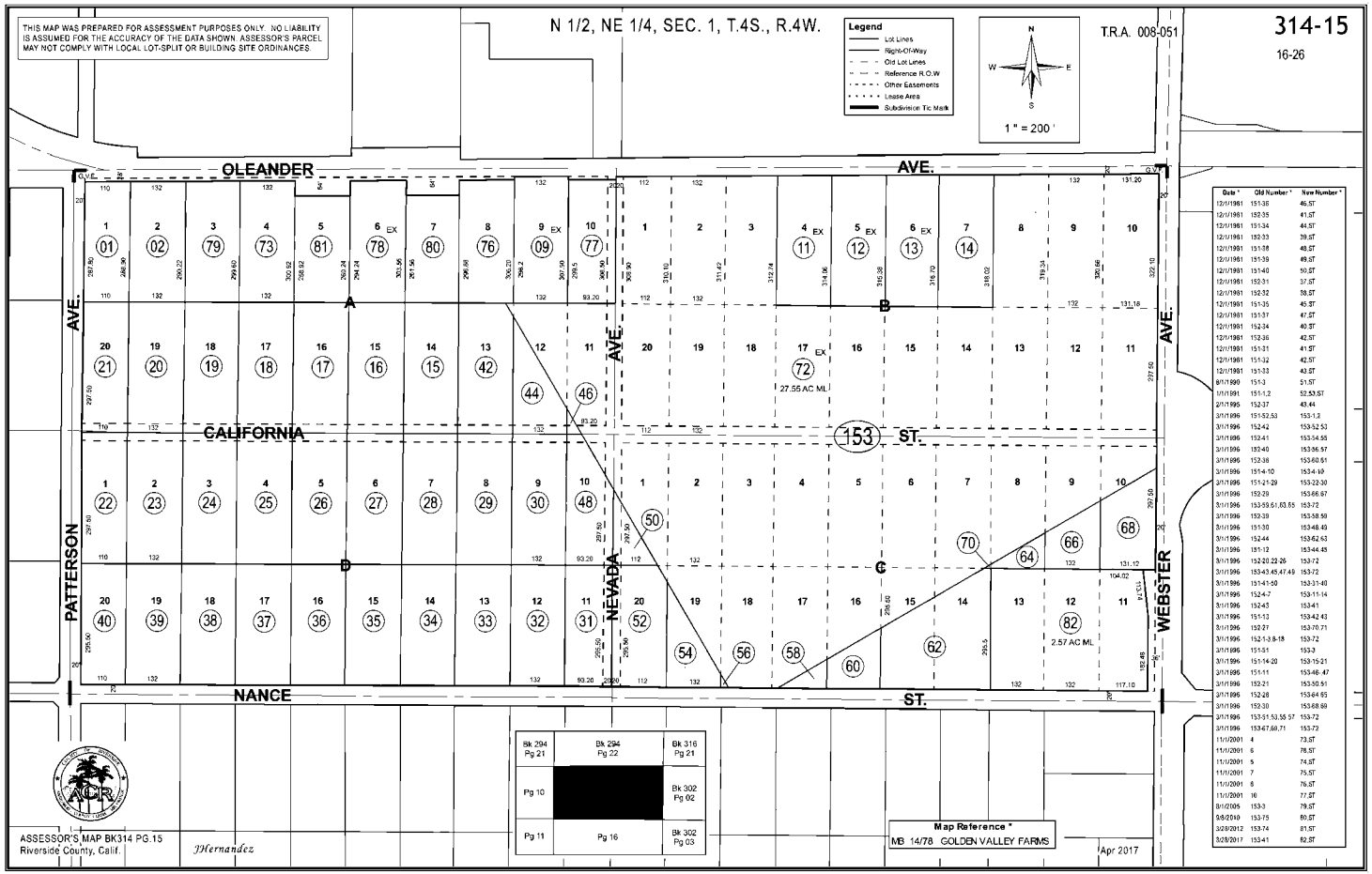

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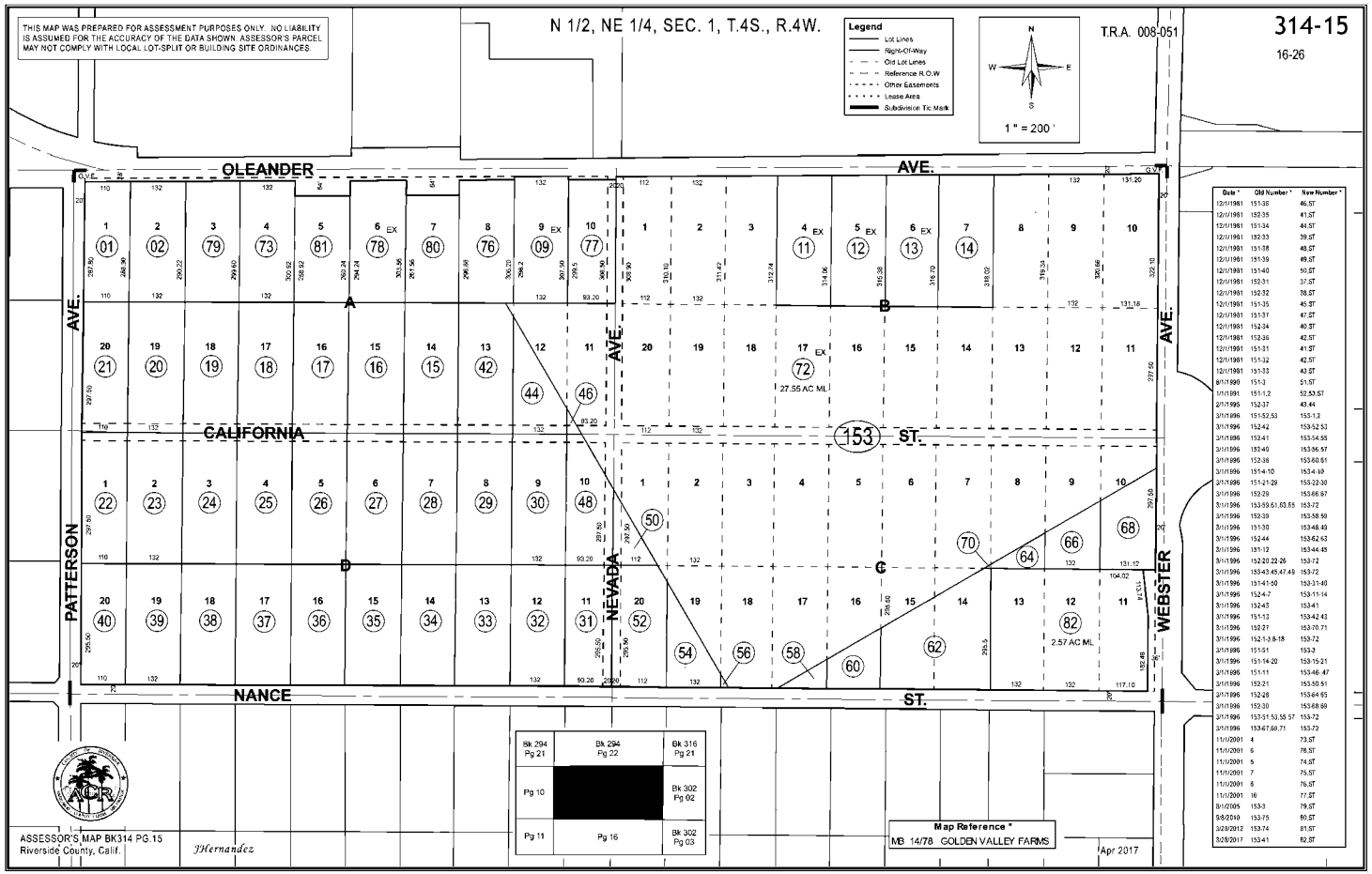

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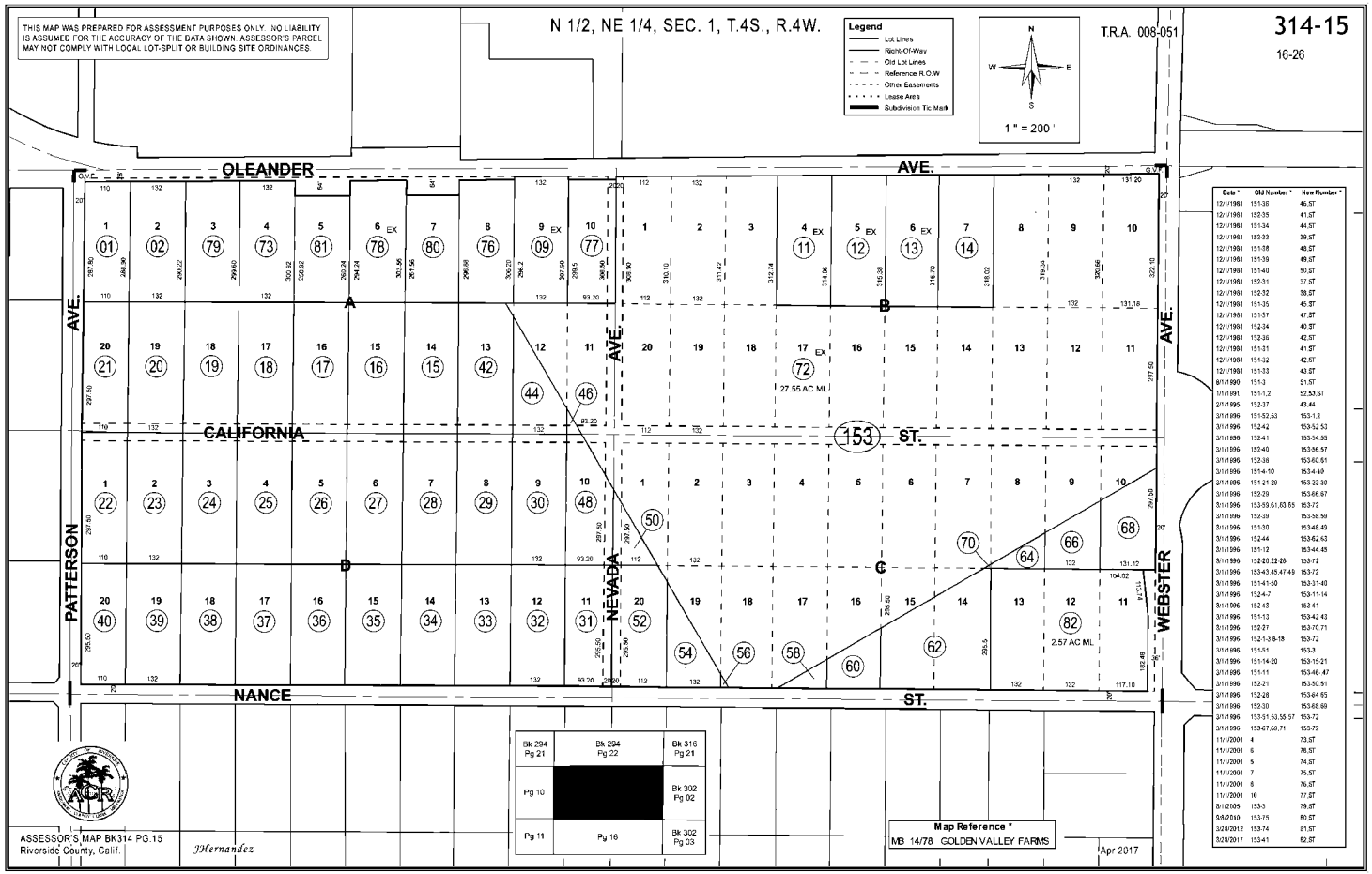

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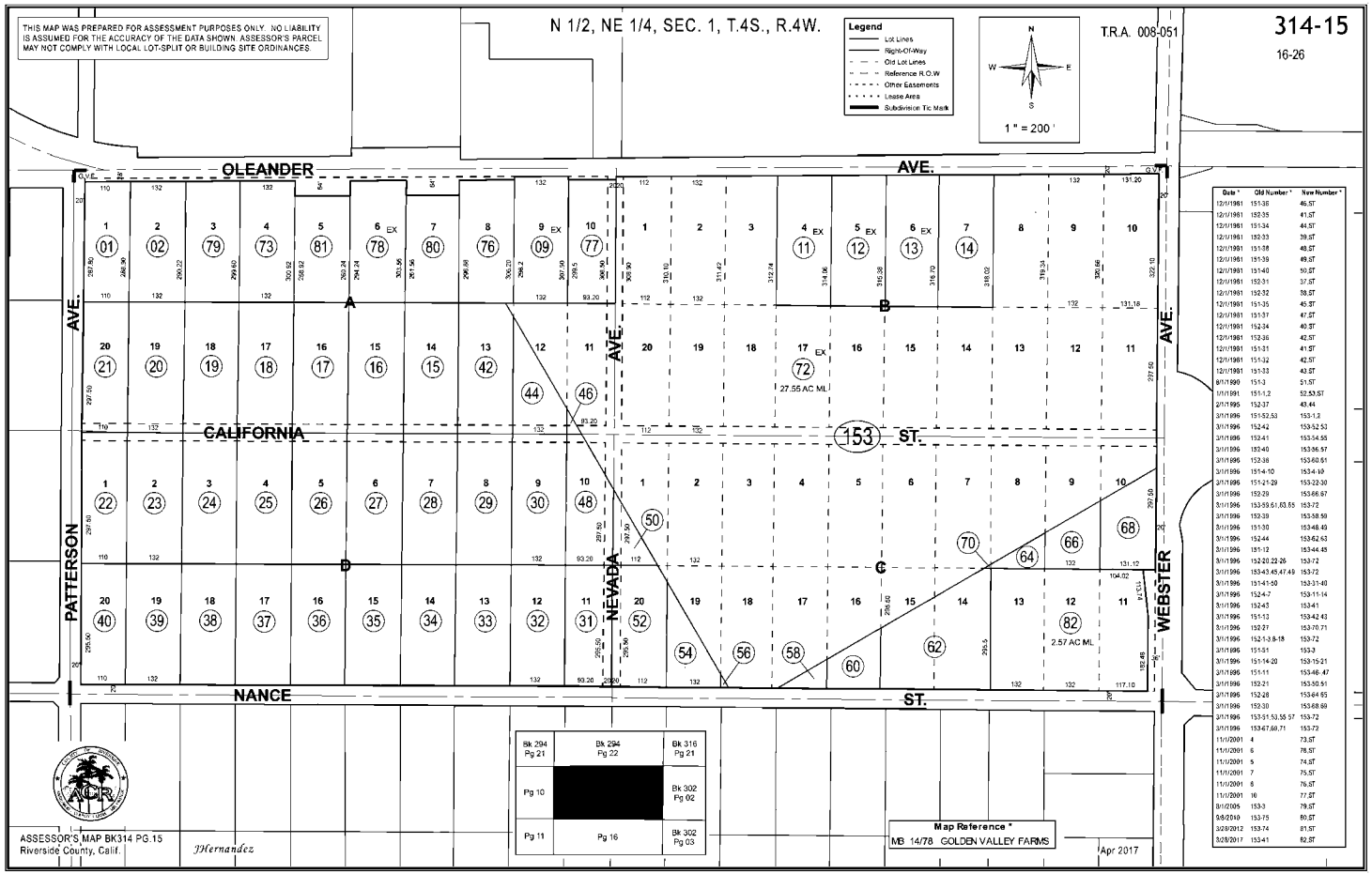

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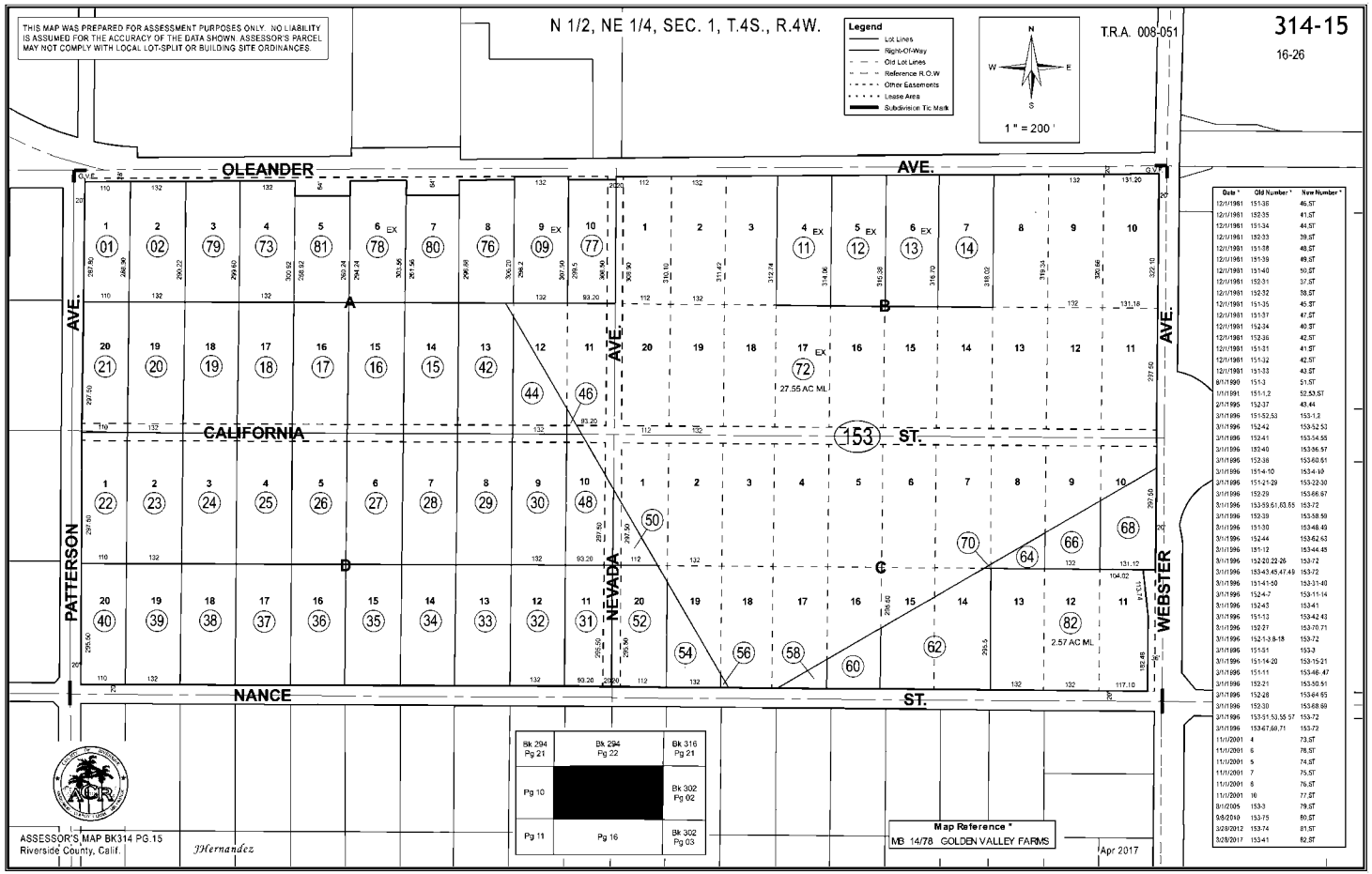

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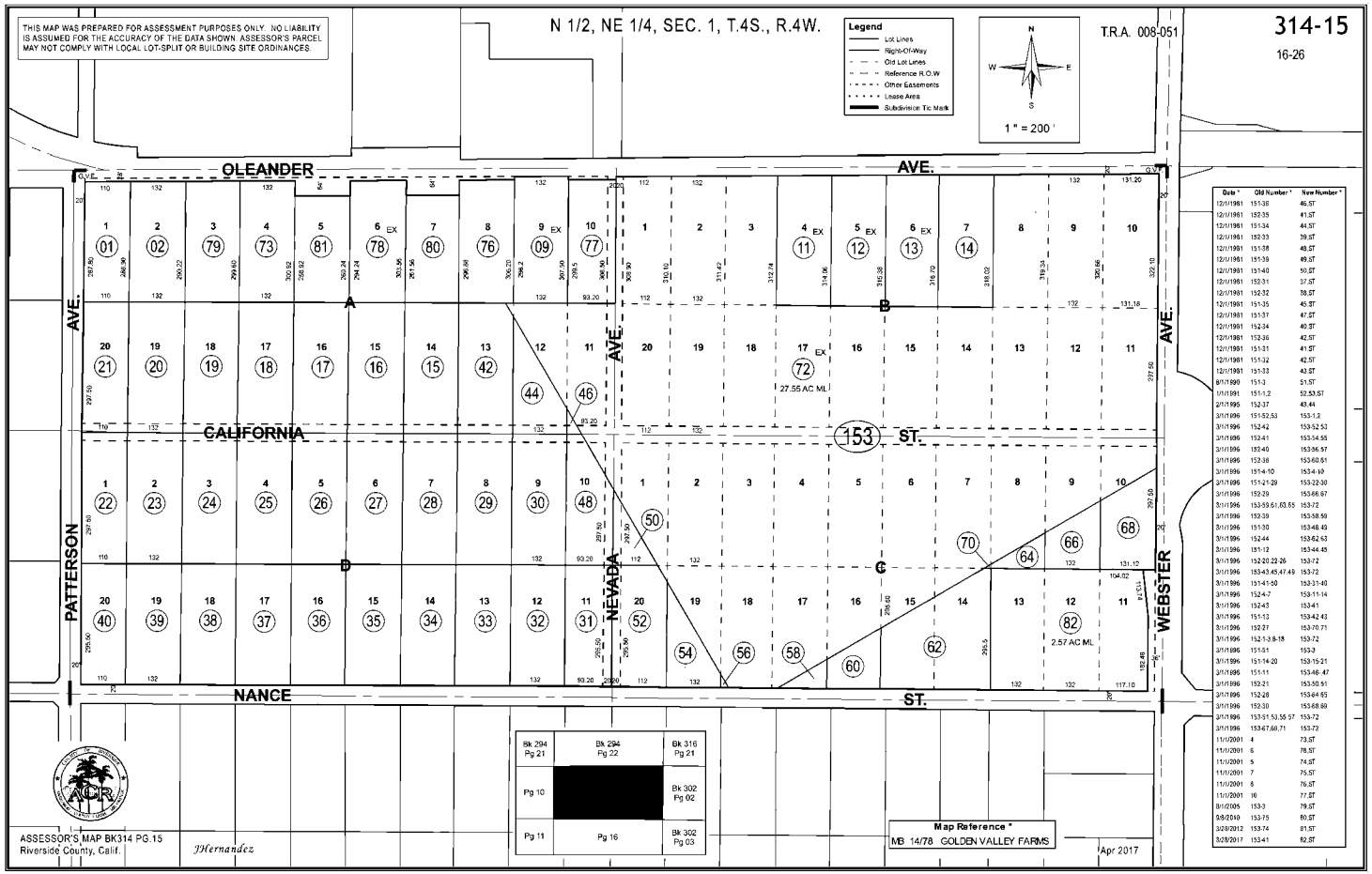

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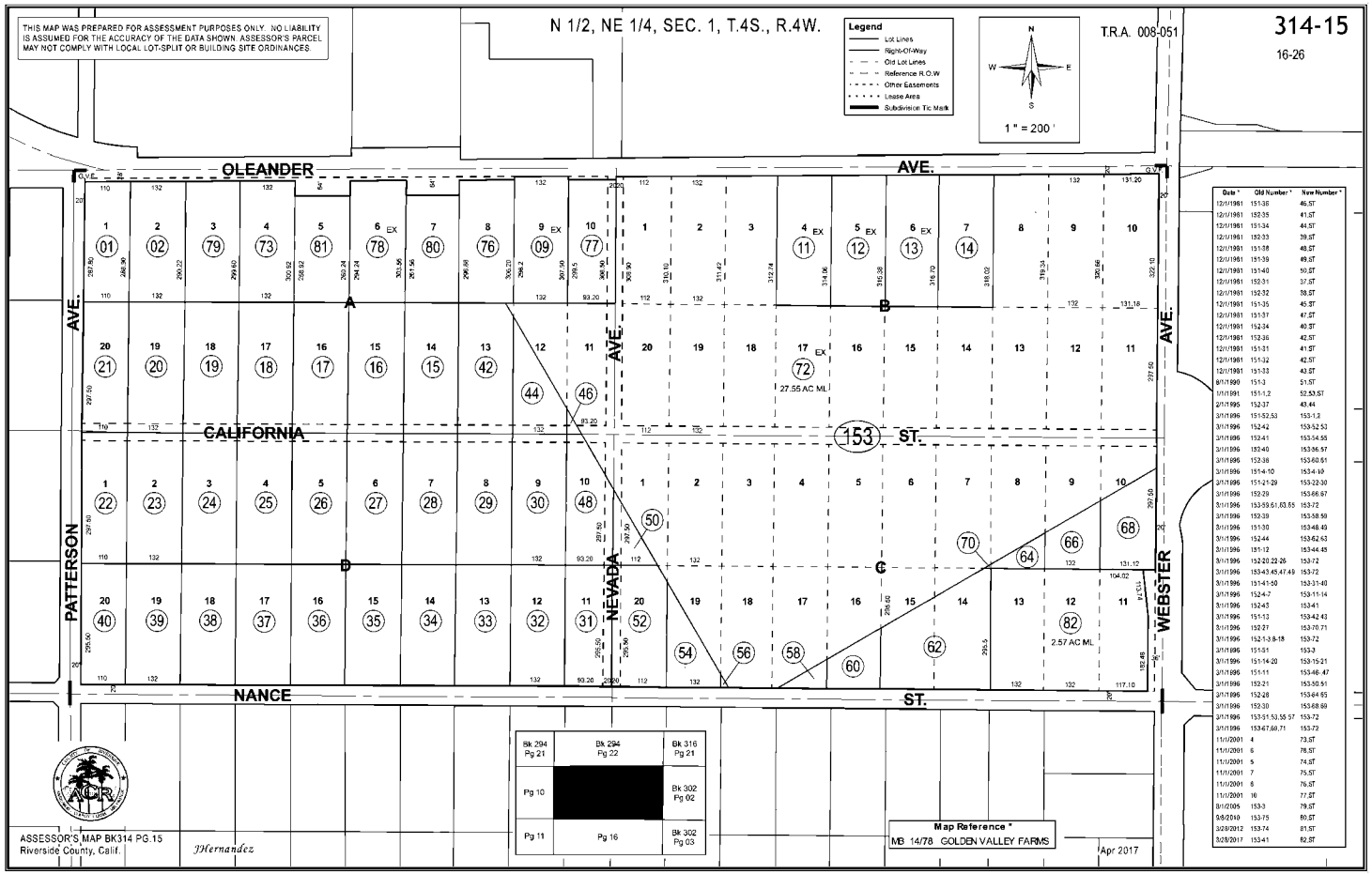

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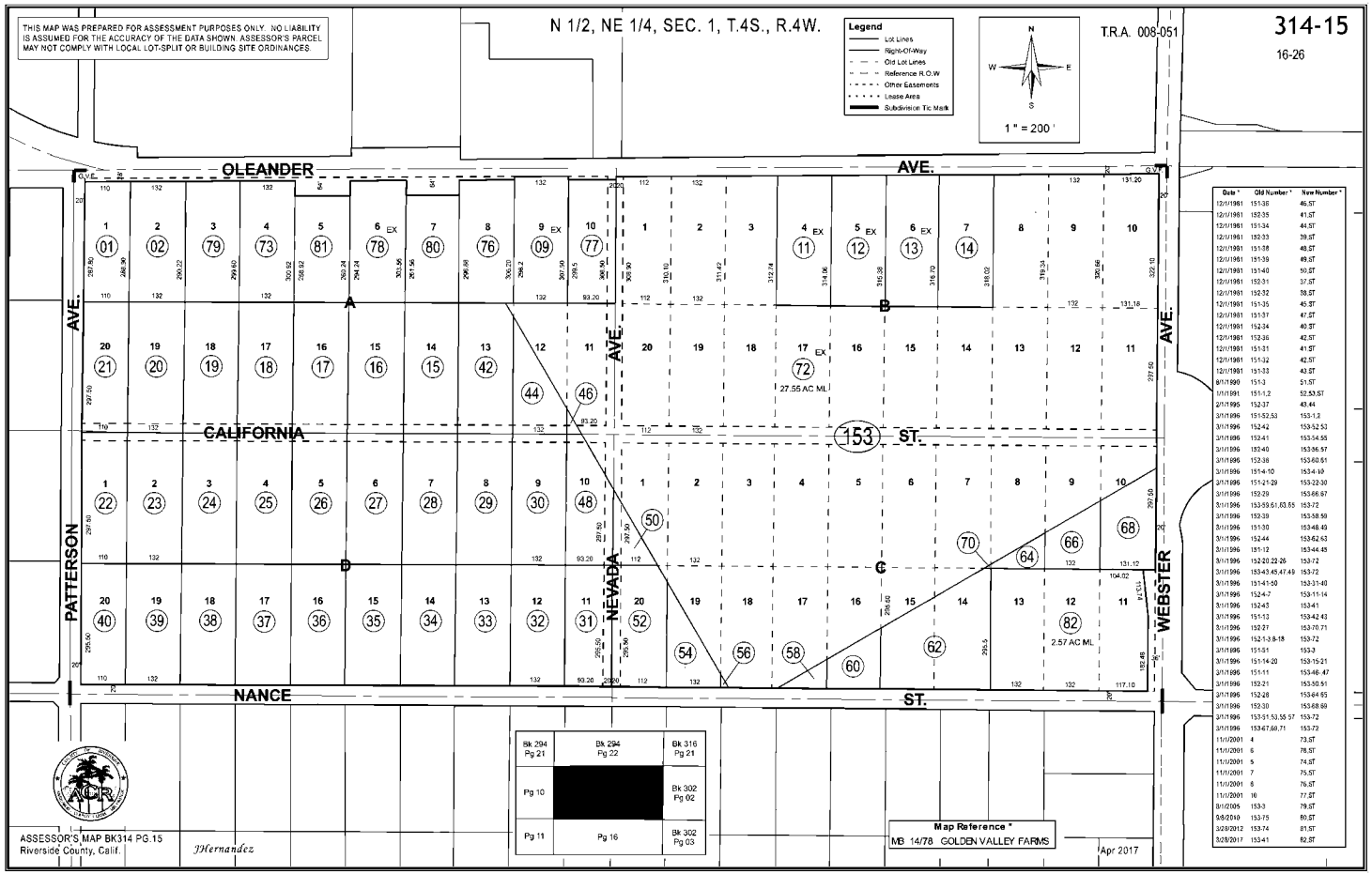

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Legend
Lot Lines
Right-Of-Way
Old Lot Lines
Reference R.O.W
Other Easements
Lease Area
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1 " = 200 '
T.R.A. 008-051
314-15
16-26
OLEANDER AVE.
CALIFORNIA ST.
NANCE ST.
PATTERSON AVE.
NEVADA AVE.
WEBSTER AVE.
27.55 AC ML
2.57 AC ML
Bk 294 Pg 21
Bk 294 Pg 22
Bk 316 Pg 21
Pg 10
Bk 302 Pg 02
Pg 11
Pg 16
Bk 302 Pg 03
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MB 14/78 GOLDEN VALLEY FARMS
ASSESSOR'S MAP BK314 PG.15
Riverside County, Calif.
JHernandez
Apr 2017

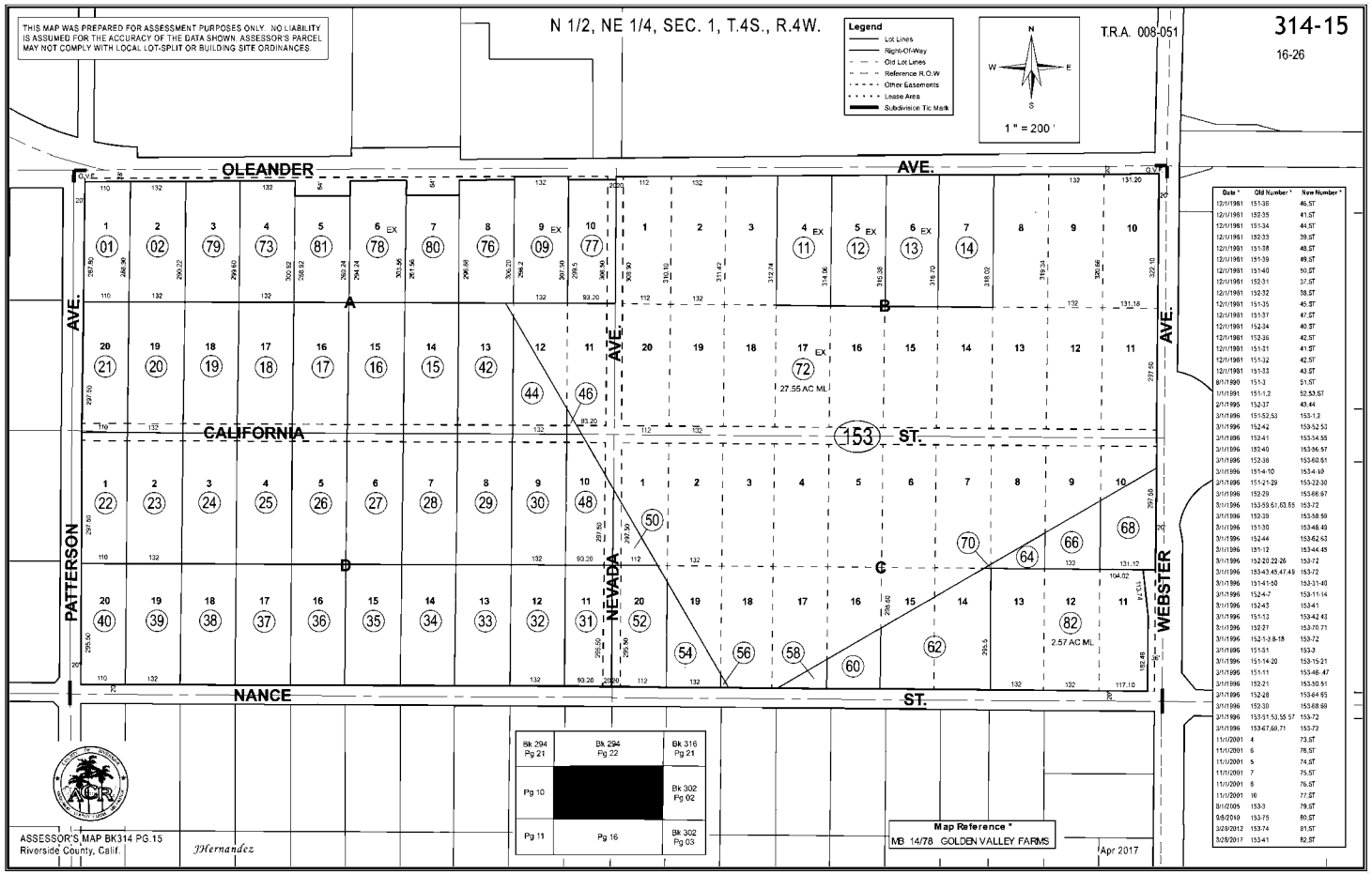

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Pg 10
Bk 302 Pg 02
Pg 11
Pg 16
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MB 14/78 GOLDEN VALLEY FARMS
ASSESSOR'S MAP BK314 PG.15
Riverside County, Calif.
JHernandez
Apr 2017

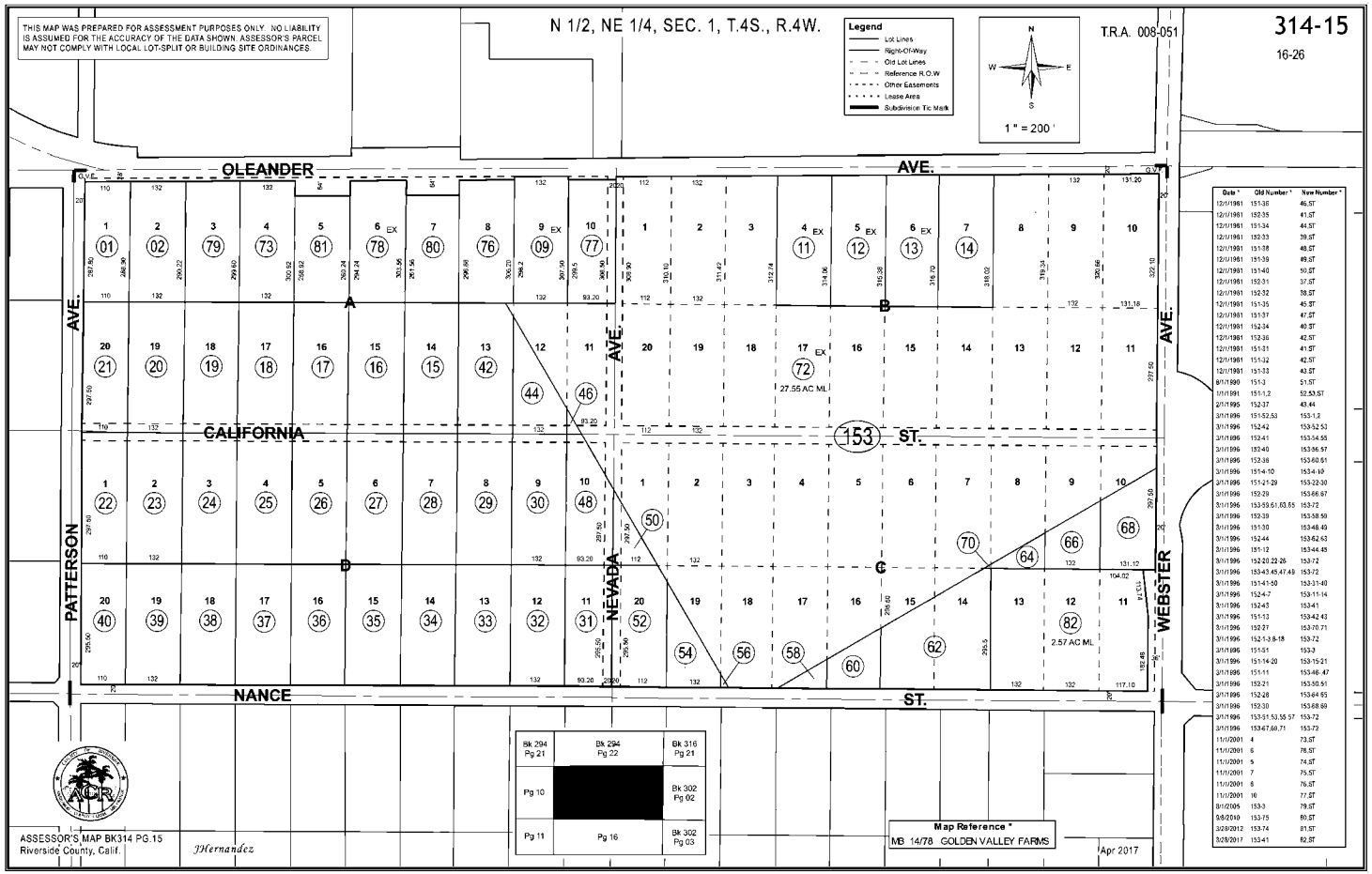

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ASSESSOR'S MAP BK314 PG.15
Riverside County, Calif.
JHernandez
Apr 2017

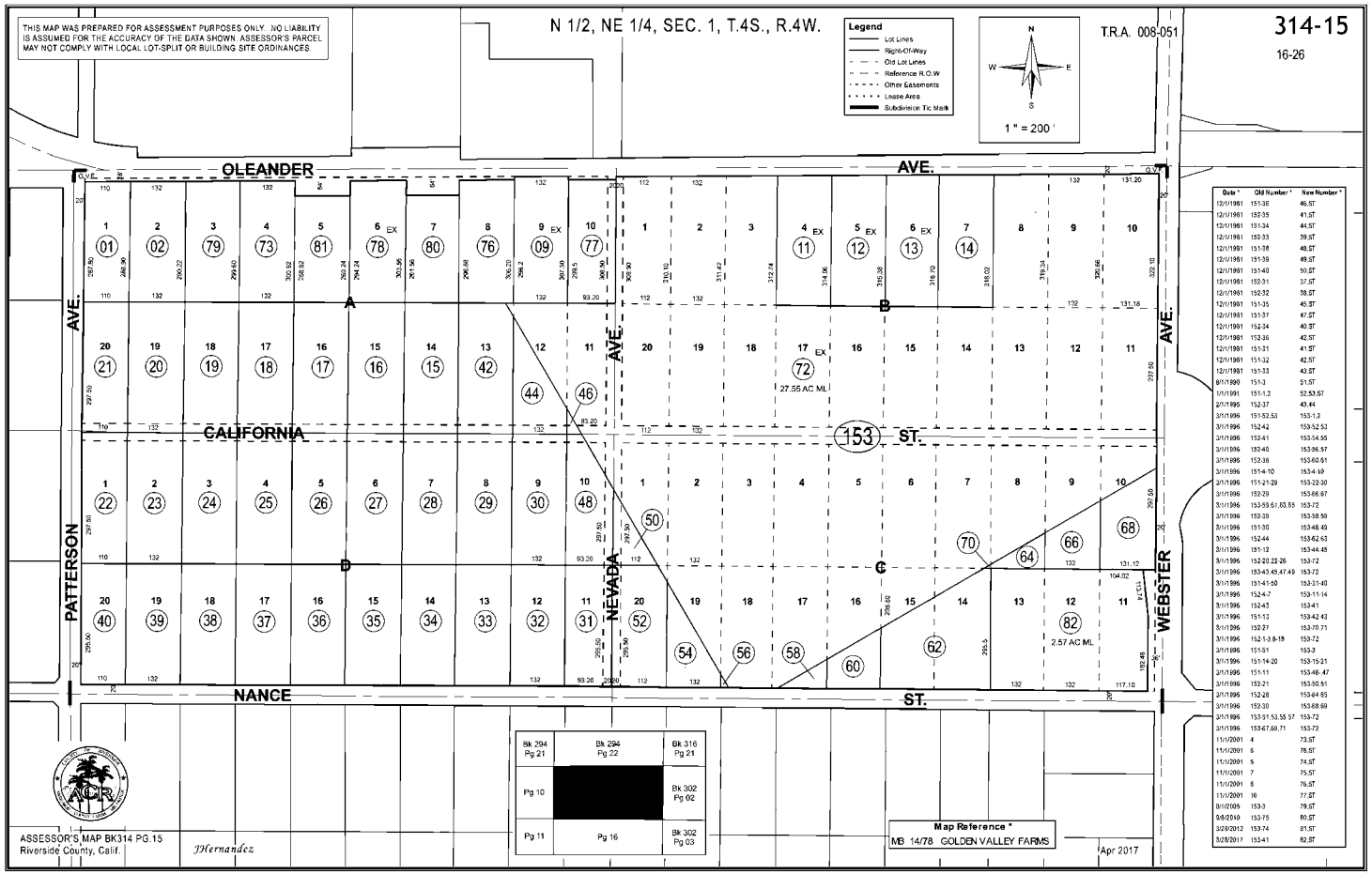

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27.55 AC M/L
2.57 AC M/L
Bk 294 Pg 21
Bk 294 Pg 22
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Pg 11
Pg 16
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ASSESSOR'S MAP BK314 PG.15
Riverside County, Calif.
JHernandez
Apr 2017

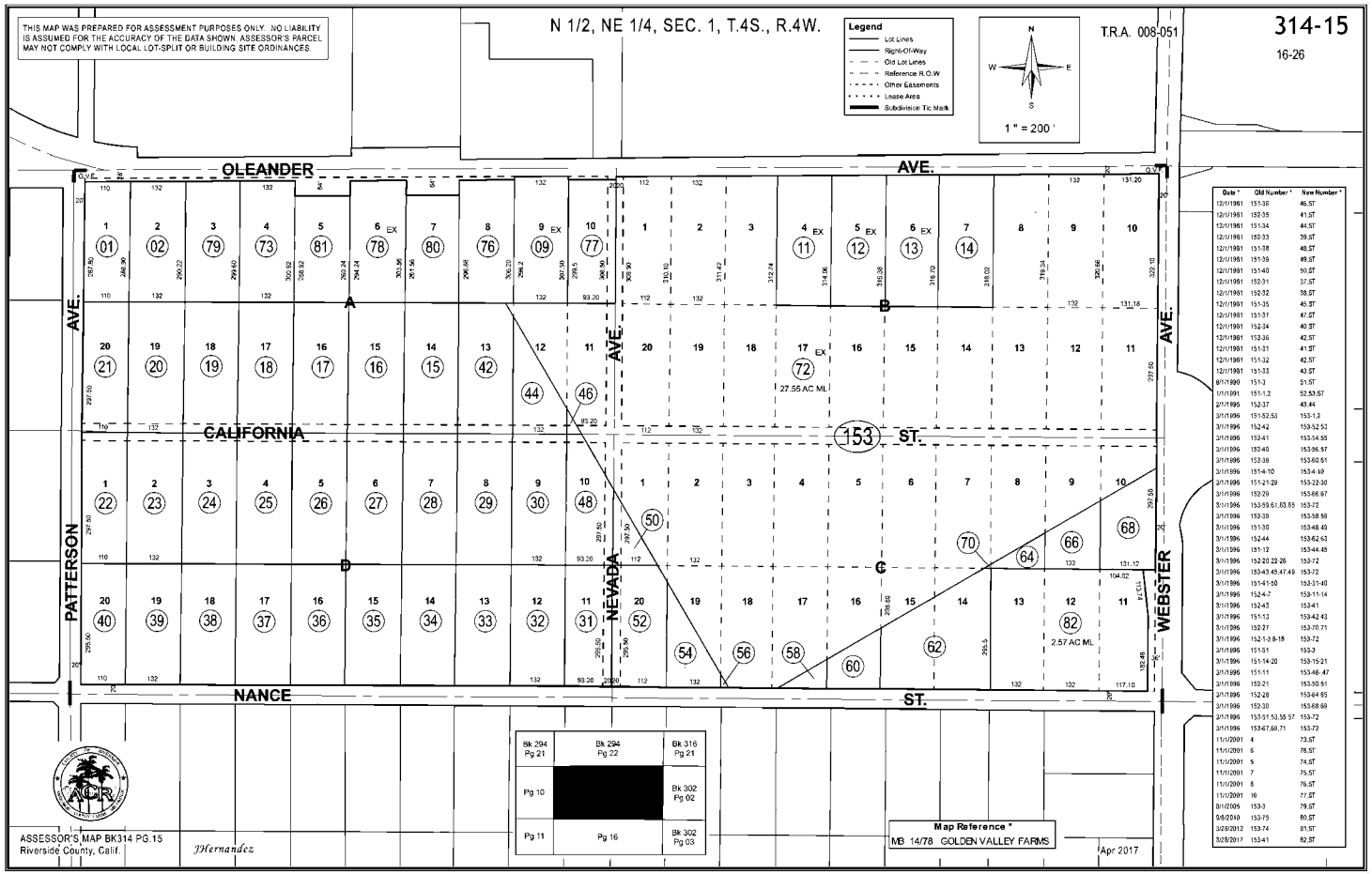

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Pg 16
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Riverside County, Calif.
JHernandez
Apr 2017

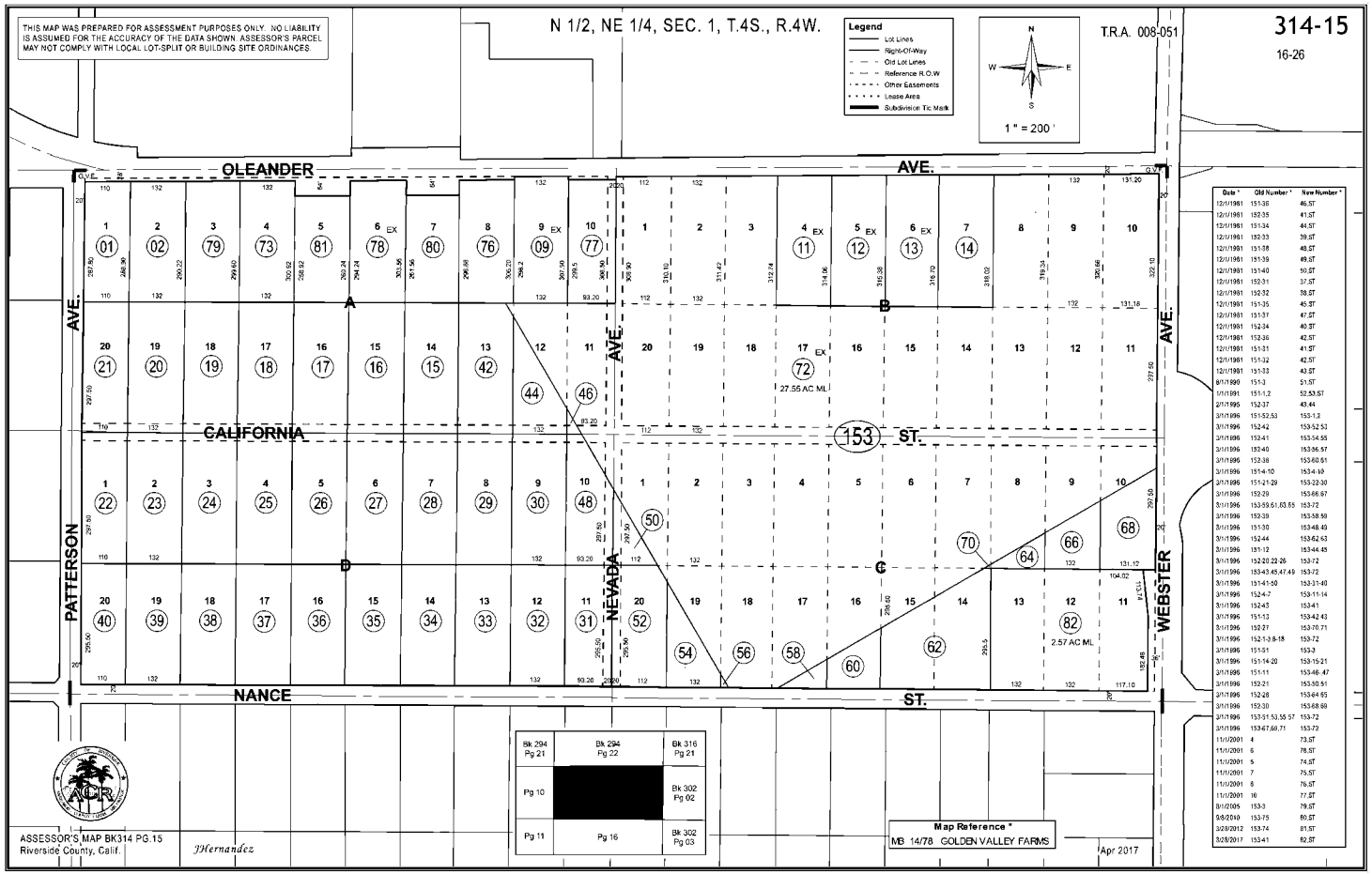

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Riverside County, Calif.
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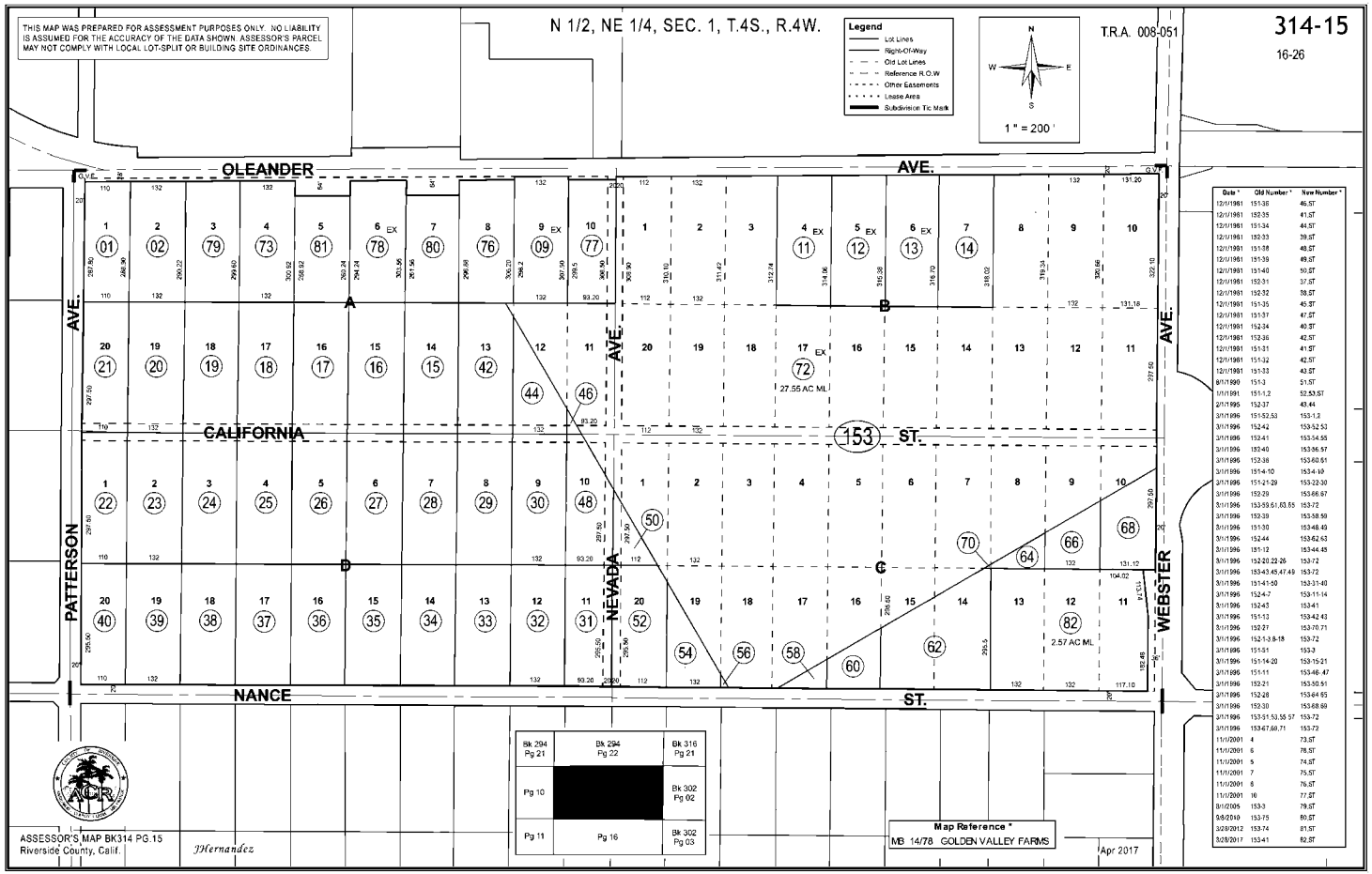

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ASSESSOR'S MAP BK314 PG.15
Riverside County, Calif.
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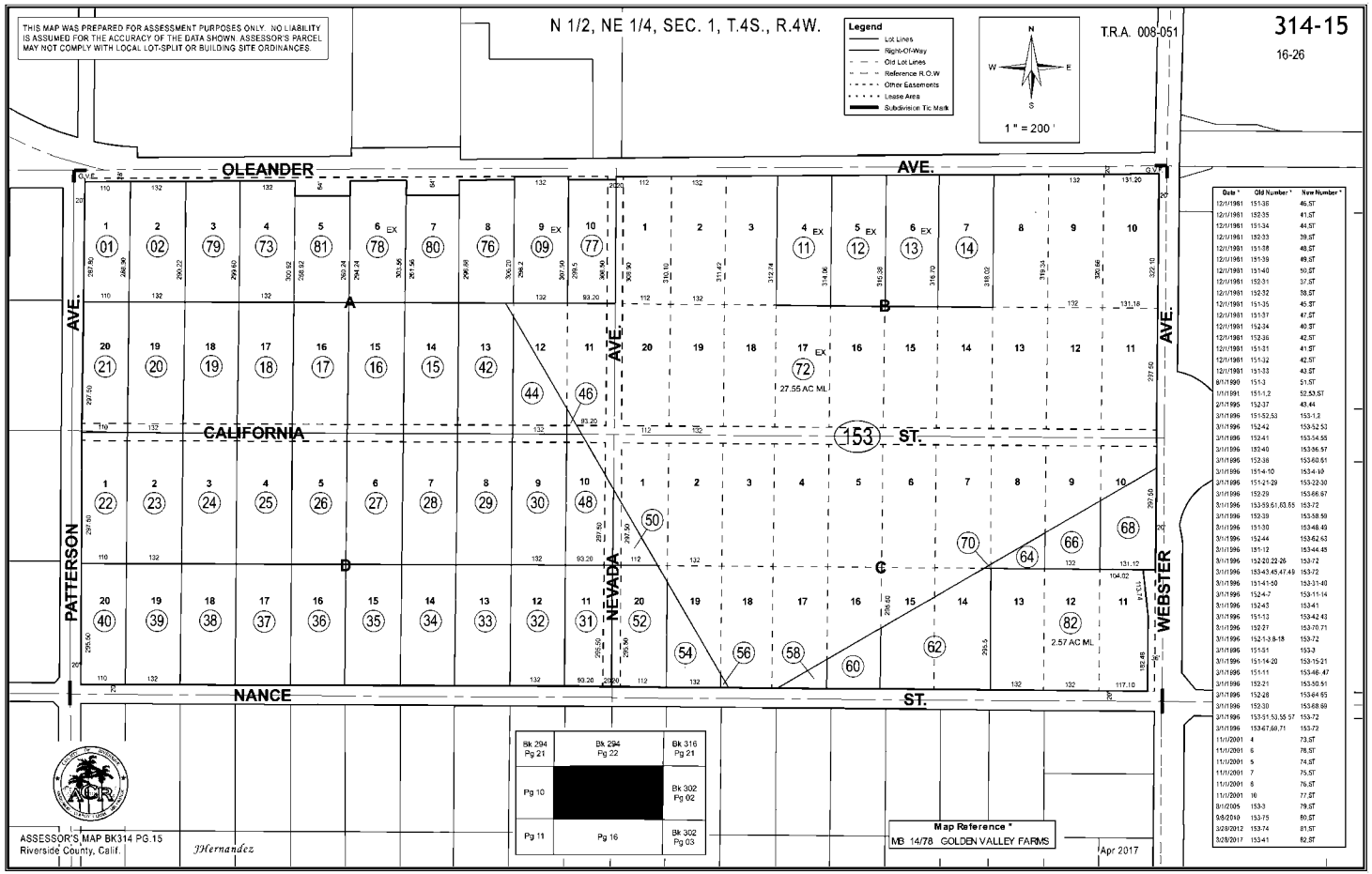

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Apr 2017
ASSESSOR'S MAP BK314 PG.15
Riverside County, Calif.
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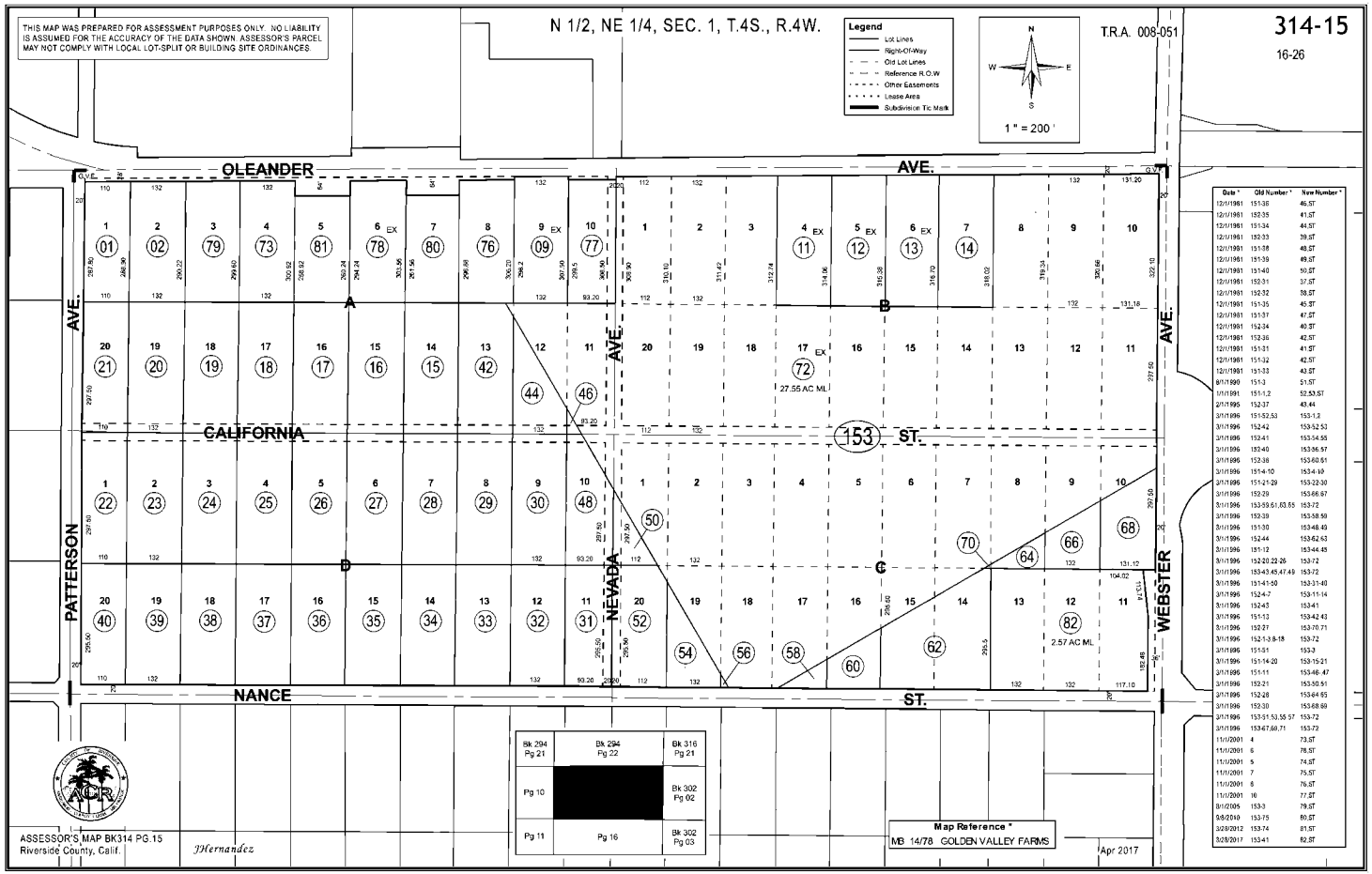

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Riverside County, Calif.
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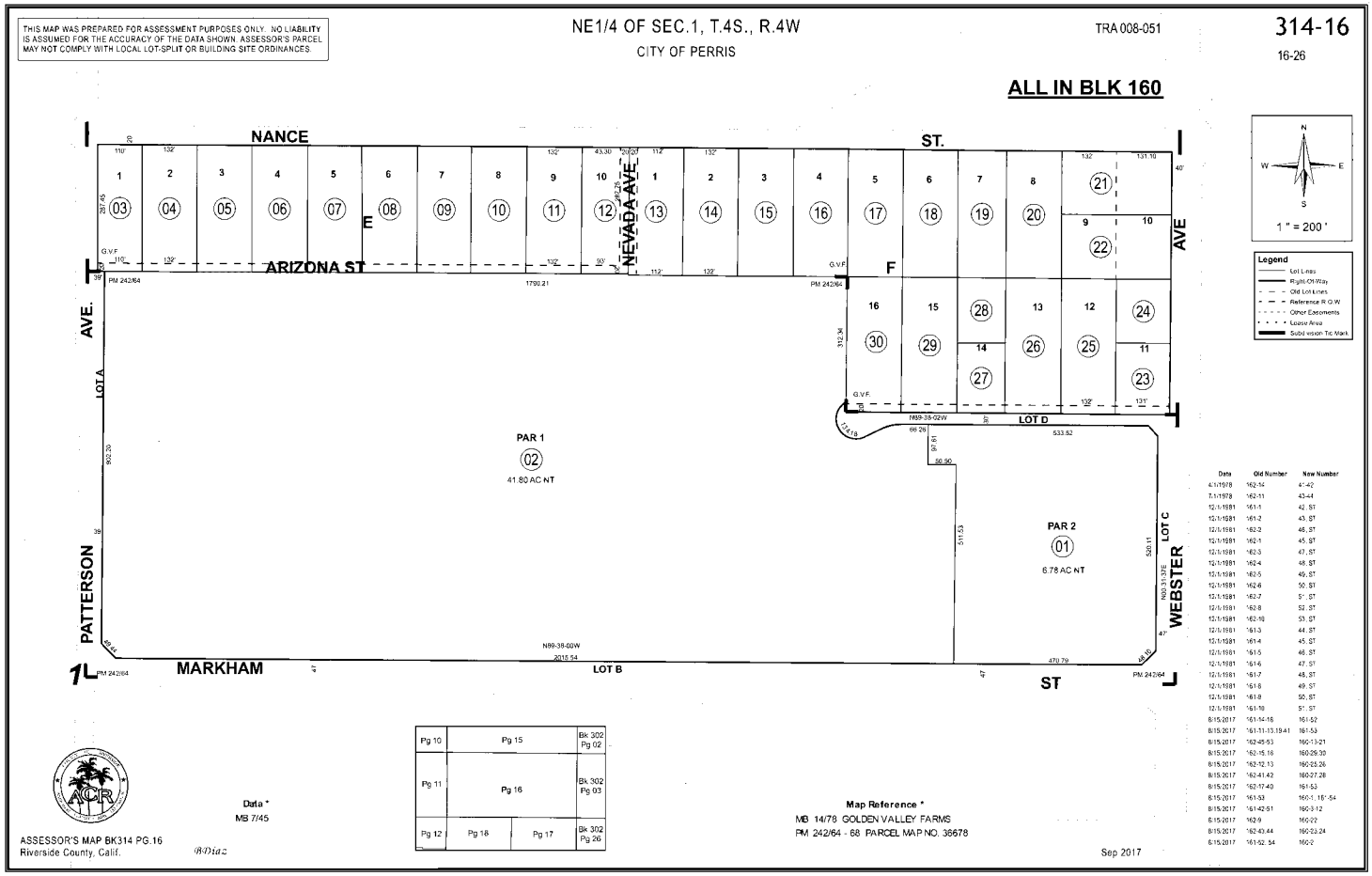

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Riverside County, Calif.
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Apr 2017

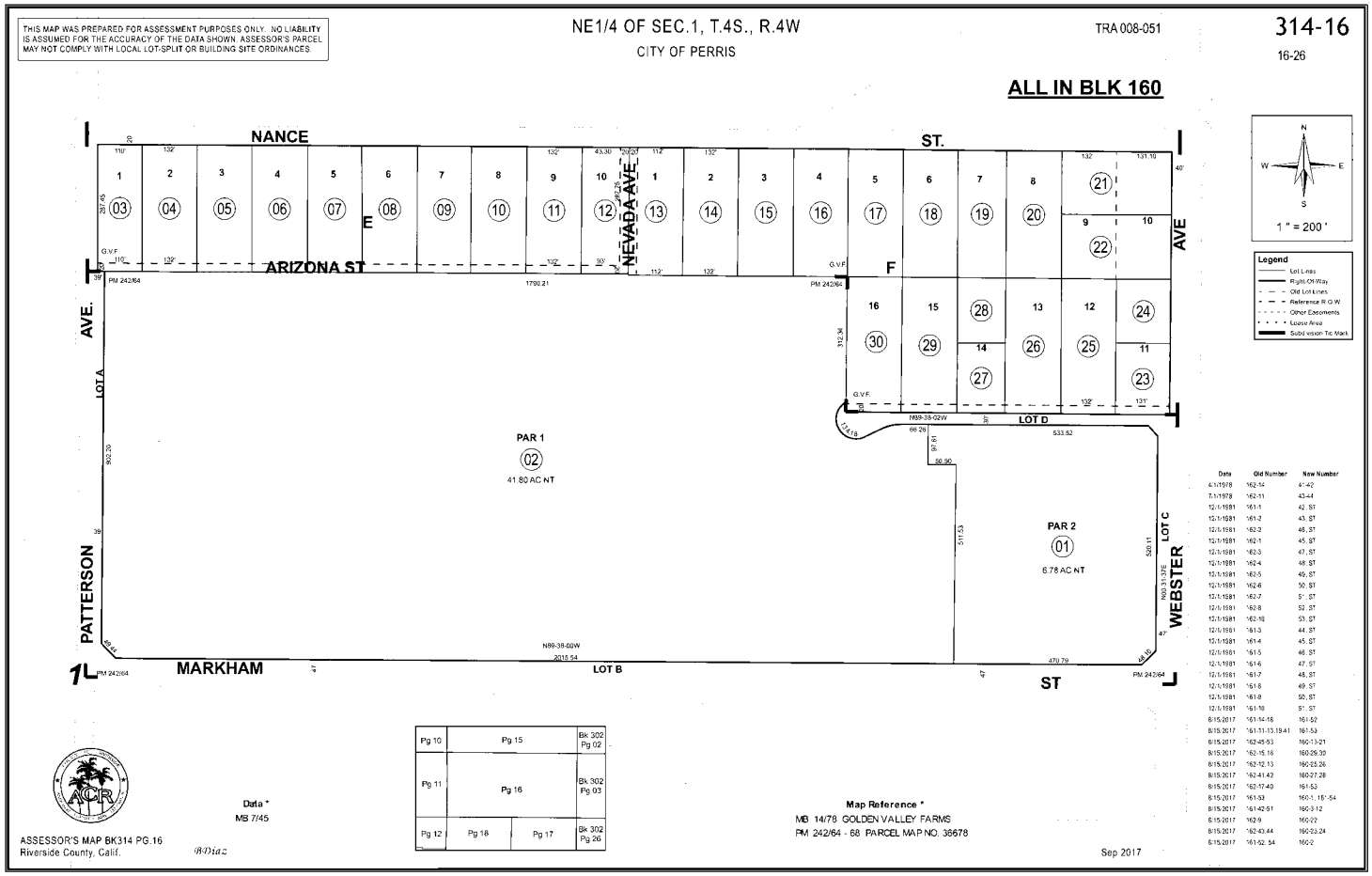

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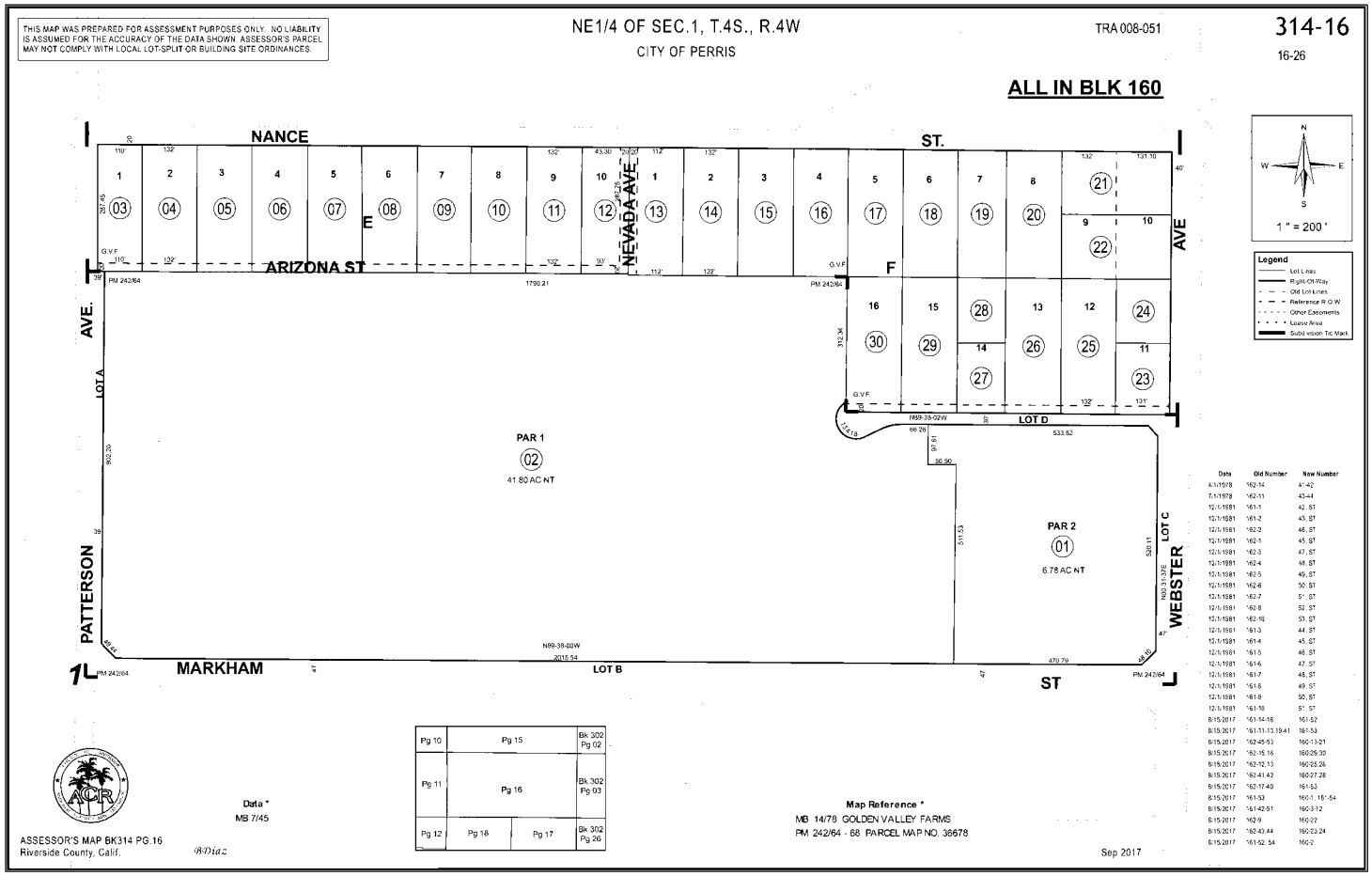

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Apr 2017

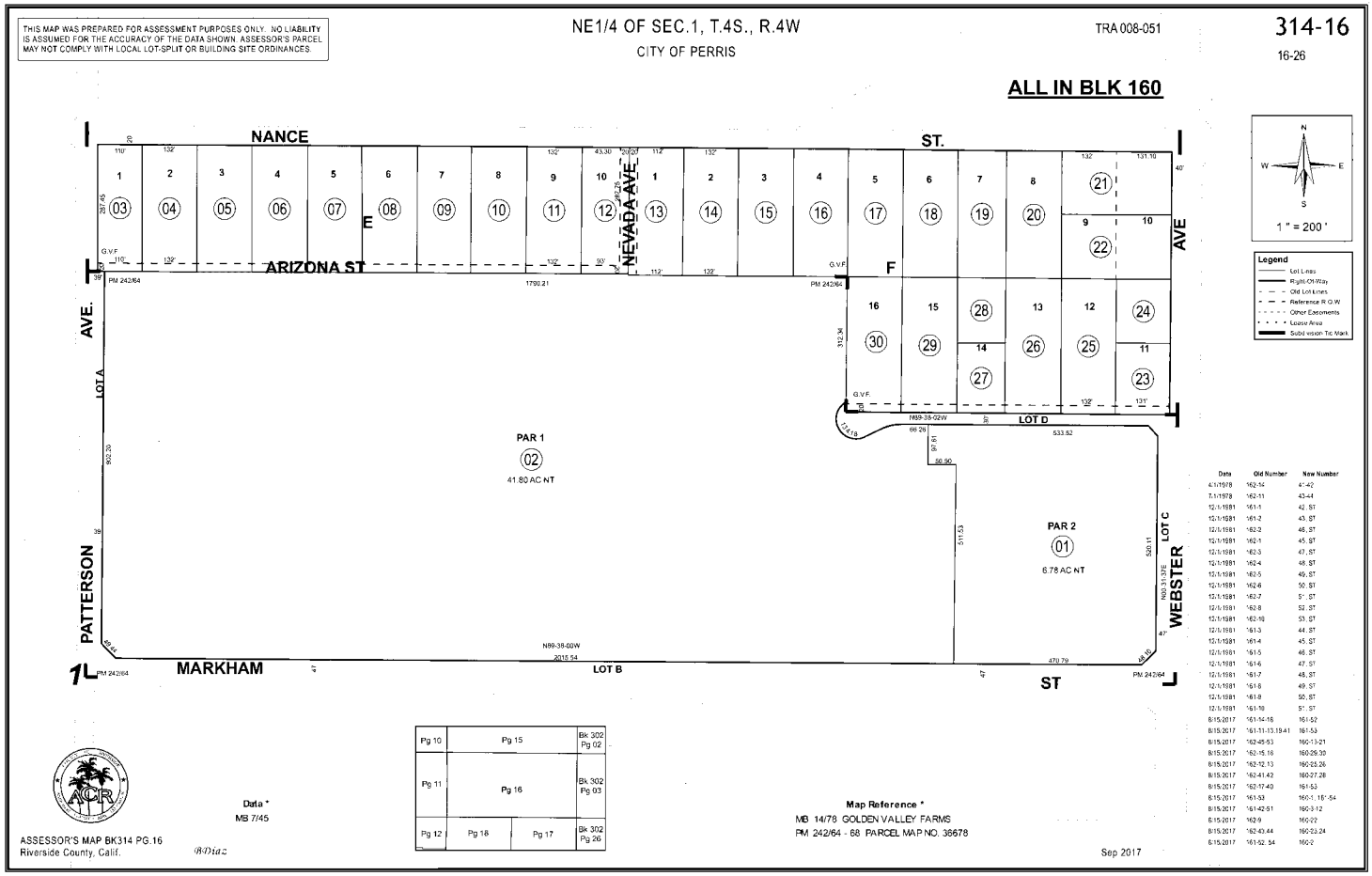

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ASSESSOR'S MAP BK314 PG.15
Riverside County, Calif.
JHernandez
Apr 2017

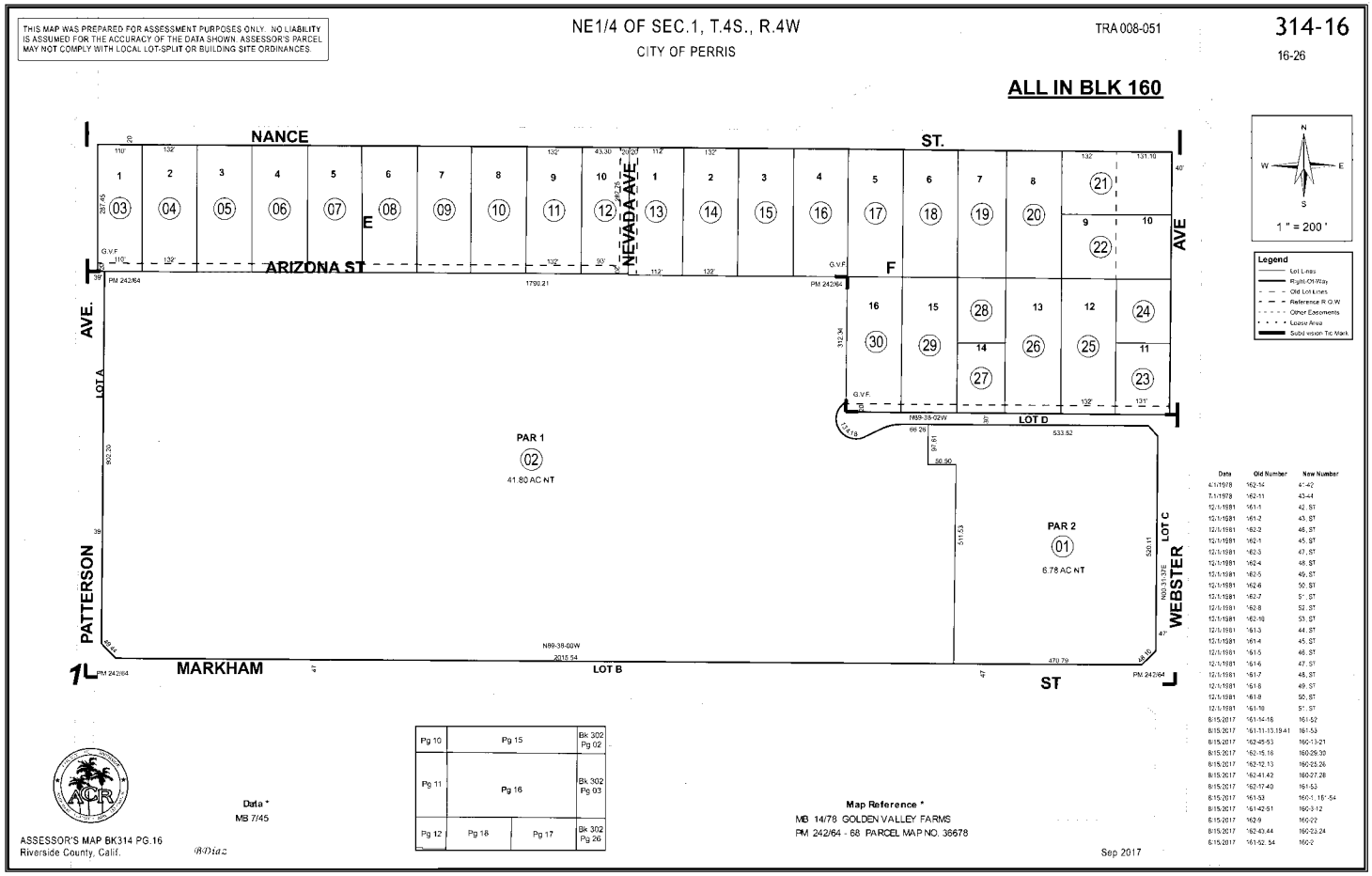

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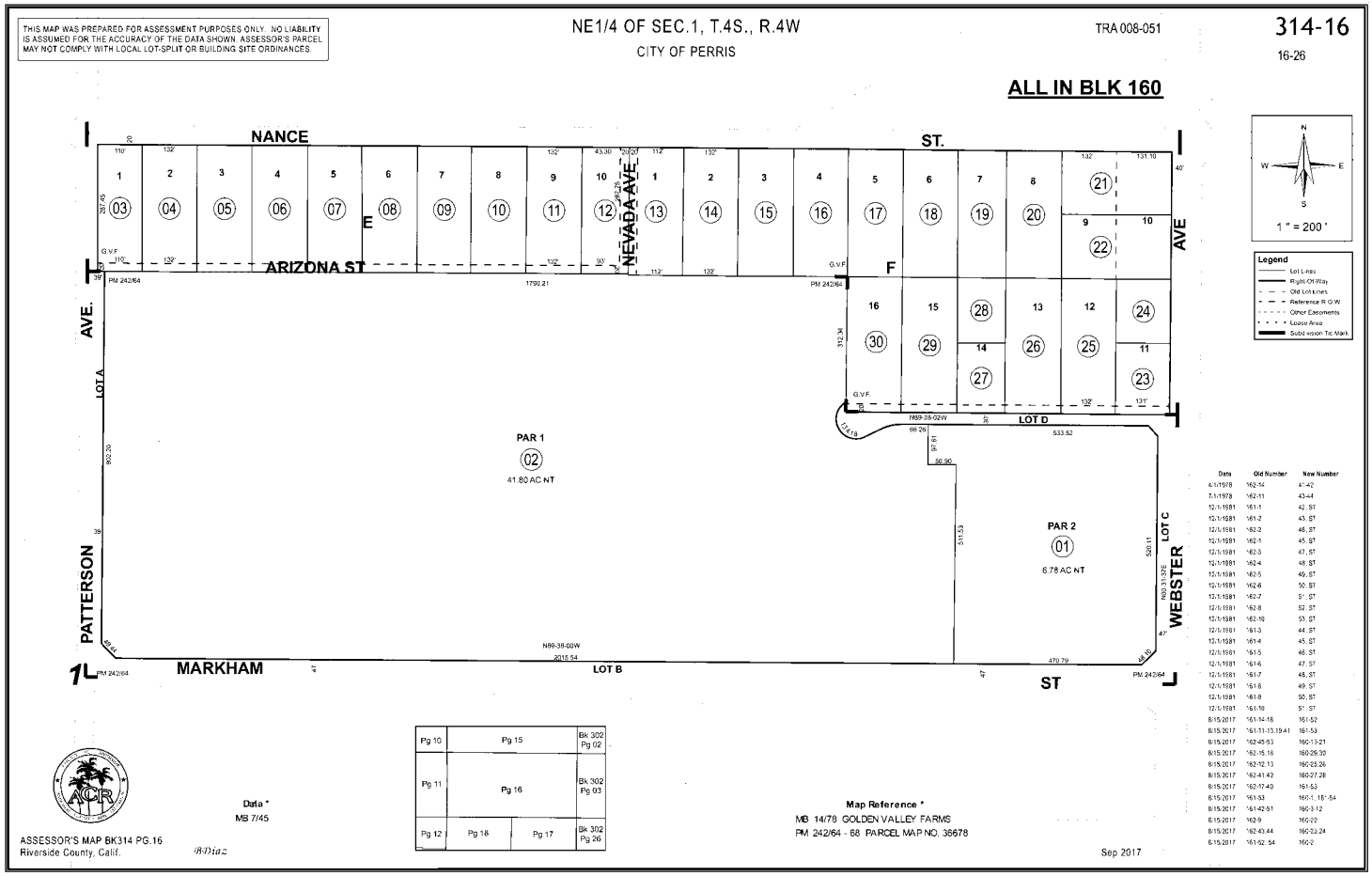

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NE1/4 OF SEC.1, T.4S., R.4W
CITY OF PERRIS
TRA 008-051
314-16
16-26
ALL IN BLK 160
NANCE
ST.
ARIZONA ST
NEVADA AVE
AVE
PATTERSON
AVE.
MARKHAM
ST
WEBSTER
LOT A
LOT B
LOT C
LOT D
PAR 1
02
41.80 AC NT
PAR 2
01
6.78 AC NT
PM 242/64
1" = 200'
Legend
Lot Lines
Right-Of-Way
Old Lot Lines
Reference R.O.W.
Other Easements
Lease Area
Subdivision Tie Mark
Data
Old Number
New Number
ASSESSOR'S MAP BK314 PG.16
Riverside County, Calif.
Data *
MB 7/45
Map Reference *
MB 14/78 GOLDEN VALLEY FARMS
PM 242/64 - 68 PARCEL MAP NO. 36678
Sep 2017

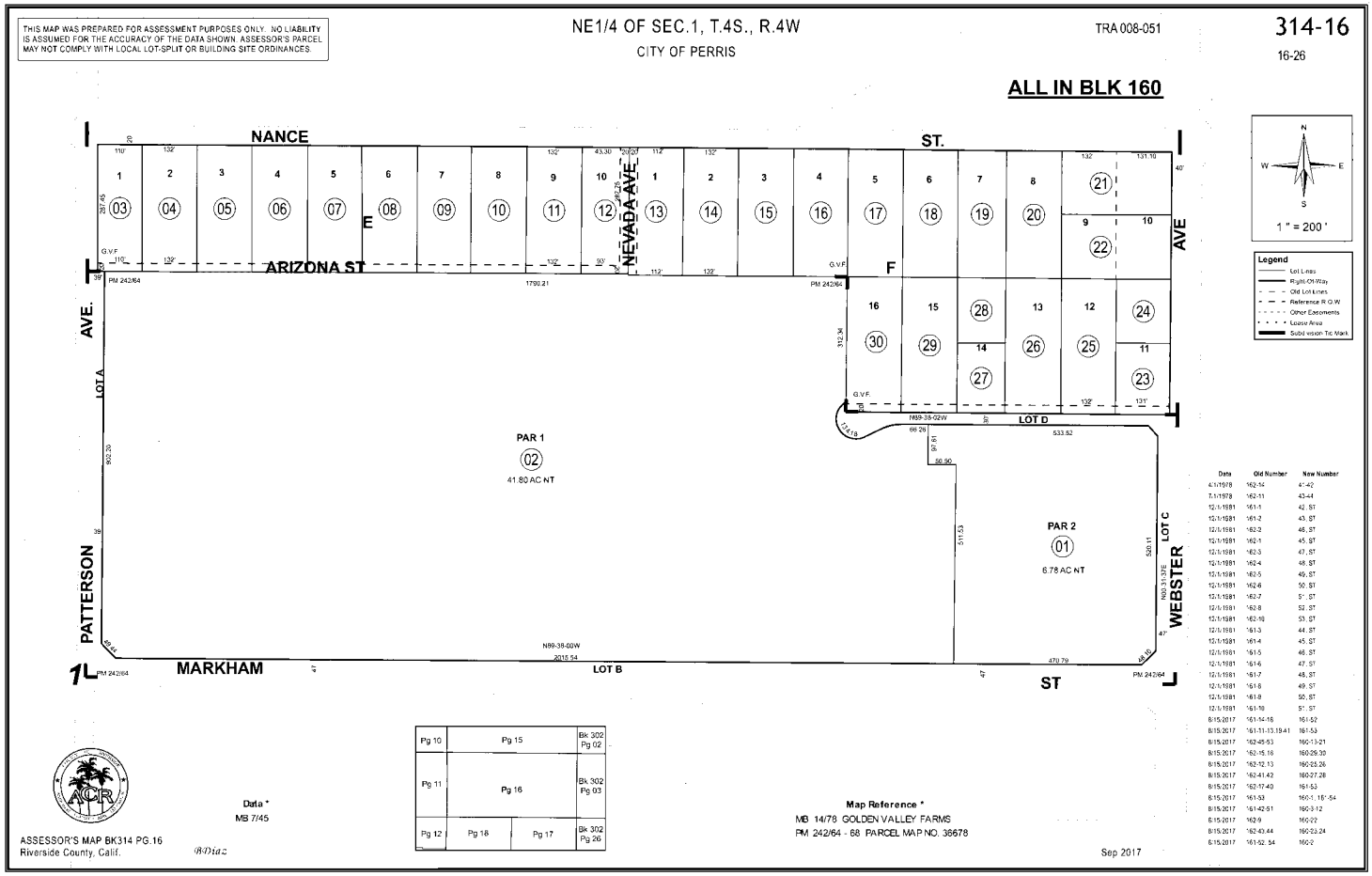

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NE1/4 OF SEC.1, T.4S., R.4W
CITY OF PERRIS
TRA 008-051
314-16
16-26
ALL IN BLK 160
NANCE
ST.
ARIZONA ST
NEVADA AVE
AVE
PATTERSON
AVE.
MARKHAM
ST
WEBSTER
LOT A
LOT B
LOT C
LOT D
PAR 1
02
41.80 AC NT
PAR 2
01
6.78 AC NT
PM 242/64
1" = 200'
Legend
Lot Lines
Right-Of-Way
Old Lot Lines
Reference R.O.W.
Other Easements
Lease Area
Subdivision Tie Mark
Data
Old Number
New Number
Data *
MB 7/45
Map Reference *
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PM 242/64 - 68 PARCEL MAP NO. 36678
ASSESSOR'S MAP BK314 PG.16
Riverside County, Calif.
Sep 2017

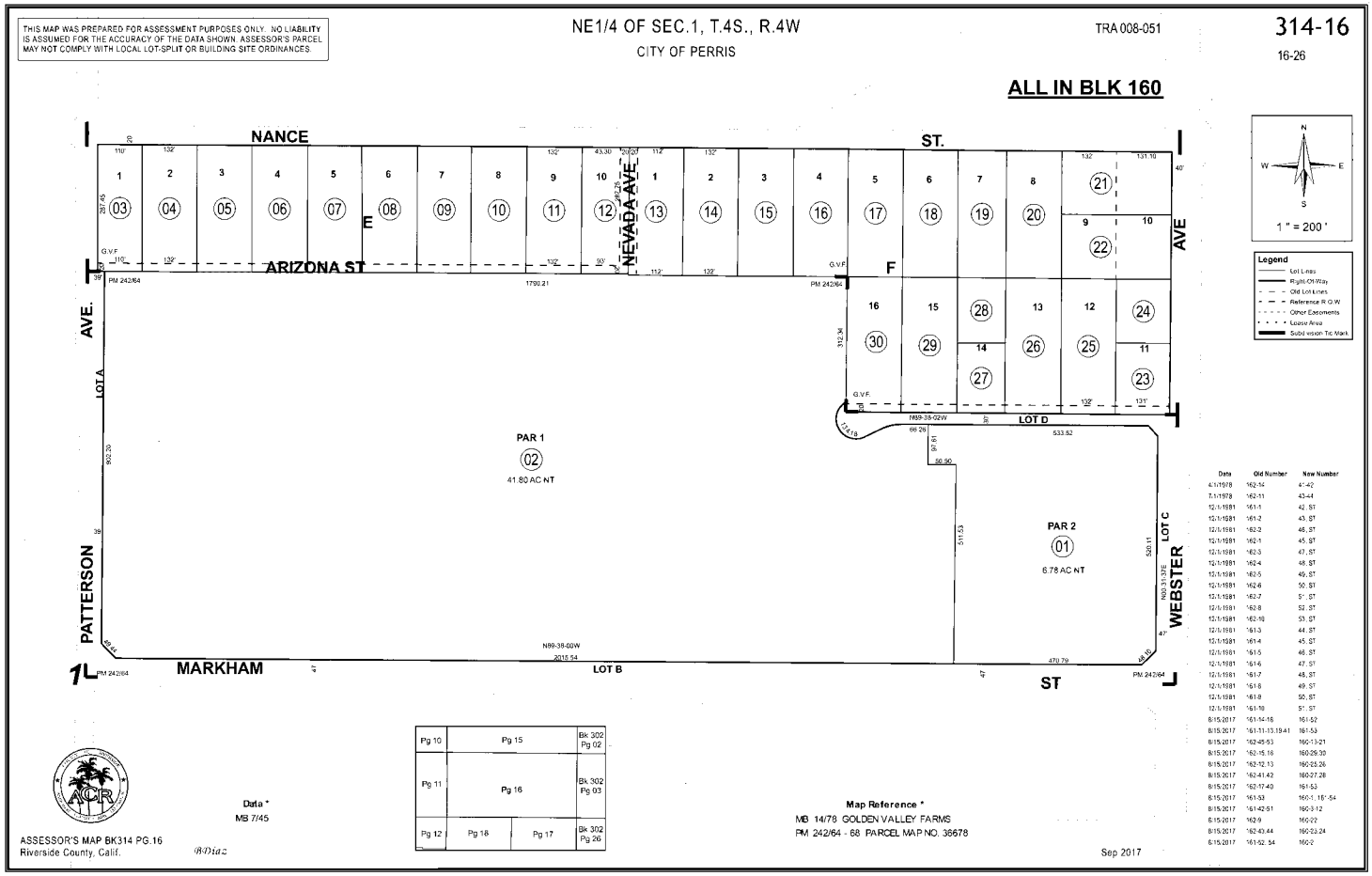

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CITY OF PERRIS
TRA 008-051
314-16
16-26
ALL IN BLK 160
NANCE
ST.
ARIZONA ST
NEVADA AVE
AVE
PATTERSON
AVE.
MARKHAM
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LOT B
LOT C
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PAR 1
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Reference R.O.W.
Other Easements
Lease Area
Subdivision Tie Mark
Data
Old Number
New Number
Pg 10
Pg 15
Bk 302 Pg 02
Pg 11
Pg 16
Bk 302 Pg 03
Pg 12
Pg 18
Pg 17
Bk 302 Pg 26
Data *
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Map Reference *
MB 14/78 GOLDEN VALLEY FARMS
PM 242/64 - 68 PARCEL MAP NO. 36678
ASSESSOR'S MAP BK314 PG.16
Riverside County, Calif.
Sep 2017


THIS MAP WAS PREPARED FOR ASSESSMENT PURPOSES ONLY. NO LIABILITY IS ASSUMED FOR THE ACCURACY OF THE DATA SHOWN. ASSESSOR'S PARCEL MAY NOT COMPLY WITH LOCAL LOT-SPLIT OR BUILDING SITE ORDINANCES.
NE1/4 OF SEC.1, T.4S., R.4W
CITY OF PERRIS
TRA 008-051
314-16
16-26
ALL IN BLK 160
NANCE
ST.
ARIZONA ST
NEVADA AVE
AVE
AVE.
PATTERSON
WEBSTER
MARKHAM
ST
LOT A
LOT B
LOT C
LOT D
PAR 1
02
41.80 AC NT
PAR 2
01
6.78 AC NT
PM 242/64
1" = 200'
Legend
Lot Lines
Right-Of-Way
Old Lot Lines
Reference R.O.W.
Other Easements
Lease Area
Subdivision Tie Mark
Data
Old Number
New Number
ASSESSOR'S MAP BK314 PG.16
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Data *
MB 7/45
Map Reference *
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Sep 2017

Appendix 5: LID Infeasibility

LID Technical Infeasibility Analysis

Not Applicable

Appendix 6: BMP Design Details

BMP Sizing, Design Details and other Supporting Documentation

R 07 W | R 06 W | R 05 W | R 04 W | R 03 W | R 02 W | R 01 W | R 01 E | R 02 E | R 03 E | R 04 E | R 05 E

T 01 S
T 02 S
T 03 S
T 04 S
T 05 S
T 06 S
T 07 S
T 08 S

0.85 MiraLoma
0.61 Riverside North
0.68 PigeonPass
0.54 Riverside South
0.66 MorenoEast
0.85 Beaumont
0.88 PradoDam
0.51 Woodcrest
0.50 LakeMathews
0.68 PerrisReservoir
PROJECT SITE
0.70 SanJacintoNWS
0.87 VistaGrandeGS
1.18 Idyllwild
0.58 SunCity
0.68 Winchester
0.90 HurkeyCreek
0.70 ElsinoreNWS
1.11 ElCarisoStation
0.77 WildomarLaCresta
0.52 SkinnerLake
0.65 Anza
0.77 SantaRosaPlateau
1.00 TemeculaNWS
0.64 AguangaValley

Santa Ana River Watershed
Santa Margarita Watershed

JURUPA VALLEY | EASTVALE | NORCO | CORONA | RIVERSIDE | MORENO VALLEY | CALIMESA | BEAUMONT | SAN JACINTO | PERRIS | HEMET | CANYON LAKE | LAKE ELSINORE | MENIFEE | WILDOMAR | MURRIETA | TEMECULA

06	05	04	03	02	01
07	08	09	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

N

Rain Gage Locations

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

Isohyetal Map for the 85th Percentile 24 hour Storm Event

July 2011

Santa Ana Watershed - BMP Design Volume, V_{BMP}

(Rev. 10-2011)

Legend: Required Entries / Calculated Cells

*(Note this worksheet shall **only** be used in conjunction with BMP designs from the **LID BMP Design Handbook**)*

Company Name	Albert A. Webb Associates	Date	3/8/2022
Designed by	ABE	Case No	P21-00005
Company Project Number/Name	Duke Nance Patterson		

BMP Identification

BMP NAME / ID: BMP-A

Must match Name/ID used on BMP Design Calculation Sheet

Design Rainfall Depth

85th Percentile, 24-hour Rainfall Depth, from the Isohyetal Map in Handbook Appendix E

D_{85}= 0.62 inches

Drainage Management Area Tabulation

Insert additional rows if needed to accommodate all DMAs draining to the BMP

DMA Type/ID	DMA Area (square feet)	Post-Project Surface Type	Effective Imperivous Fraction, I_f	DMA Runoff Factor	DMA Areas x Runoff Factor	Design Storm Depth (in)	Design Capture Volume, V_{BMP} (cubic feet)	Proposed Volume on Plans (cubic feet)
L-A	108,920	Ornamental Landscaping	0.1	0.11	12031.1			
R-A	759,600	Roofs	1	0.89	677563.2			
H-A	629,280	Concrete or Asphalt	1	0.89	561317.8			
BMP-A	200	Ornamental Landscaping	0.1	0.11	22.1			
SR-A	23,740	Ornamental Landscaping						
SELF-TREATING	31,090	Ornamental Landscaping						
	1552830	Total			1250934.2	0.62	64631.6	64,650

Notes:

DYODS™
Design Your Own Detention System

CONTECH CMP DETENTION SYSTEMS

CONTECH CONSTRUCTION PRODUCTS INC.

For design assistance, drawings,
and pricing send completed worksheet to:
dyods@contech-cpi.com



Project Summary

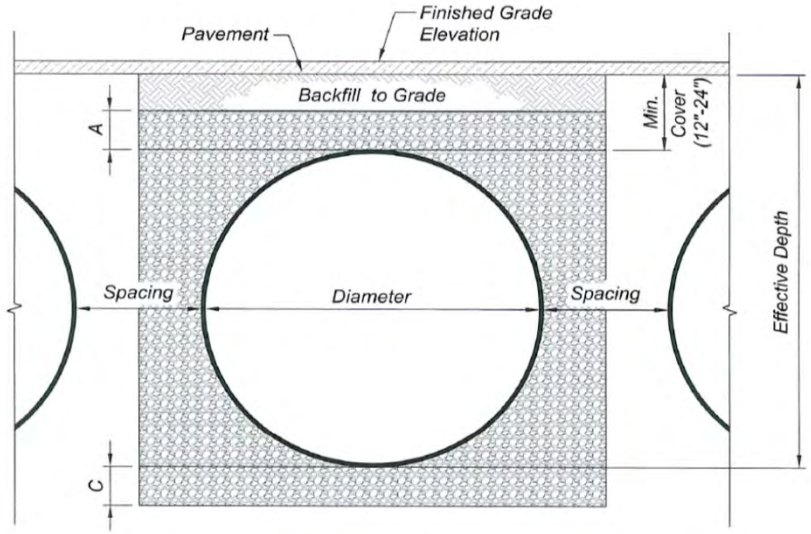
Date:	3/8/2022
Project Name:	Duke Nance Patterson
City / County:	Perris
State:	CA
Designed By:	ABE
Company:	Albert A. Webb Associates
Telephone:	(951) 686-1070

Enter Information in Blue Cells

Corrugated Metal Pipe Calculator

Storage Volume Required (cf):	64,650
Limiting Width (ft):	65.00
Invert Depth Below Asphalt (ft):	11.00
Solid or Perforated Pipe:	Perforated
Shape Or Diameter (in):	96
Number Of Headers:	2
Spacing between Barrels (ft):	3.00
Stone Width Around Perimeter of System (ft):	2
Depth A: Porous Stone Above Pipe (in):	6
Depth C: Porous Stone Below Pipe (in):	6
Stone Porosity (0 to 40%):	40

50.27 ft^2 Pipe Area



System Sizing

Pipe Storage:	46,697	cf	
Porous Stone Storage:	18,617	cf	
Total Storage Provided:	65,314	cf	101.0% Of Required Storage
Number of Barrels:	5	barrels	
Length per Barrel:	165.0	ft	
Length Per Header:	52.0	ft	
Rectangular Footprint (W x L):	56. ft x 185. ft		

CONTECH Materials

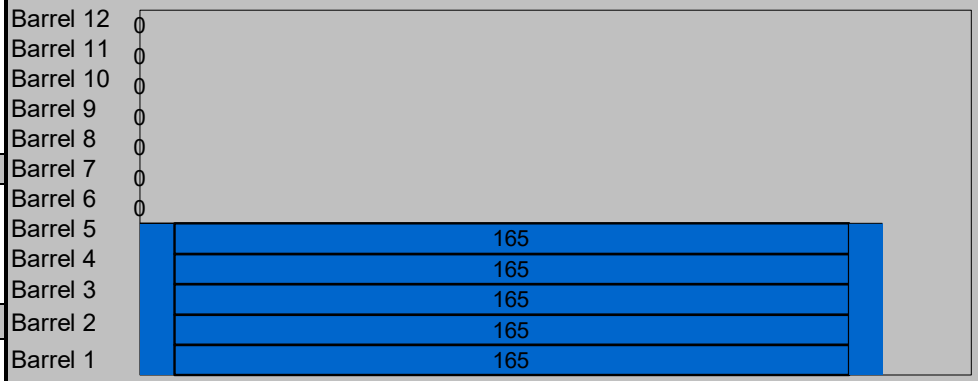
Total CMP Footage:	929	ft
Approximate Total Pieces:	41	pcs
Approximate Coupling Bands:	44	bands
Approximate Truckloads:	21	trucks

Construction Quantities**

Total Excavation:	4221	cy
Porous Stone Backfill For Storage:	1724	cy stone
Backfill to Grade Excluding Stone:	768	cy fill

***Construction quantities are approximate and should be verified upon final design*

System Layout



© 2007 CONTECH Stormwater Solutions

Pump Rate Calculation

$$\frac{V_{BMP}}{t_{drain}} = Area * i = Q_{pump}$$

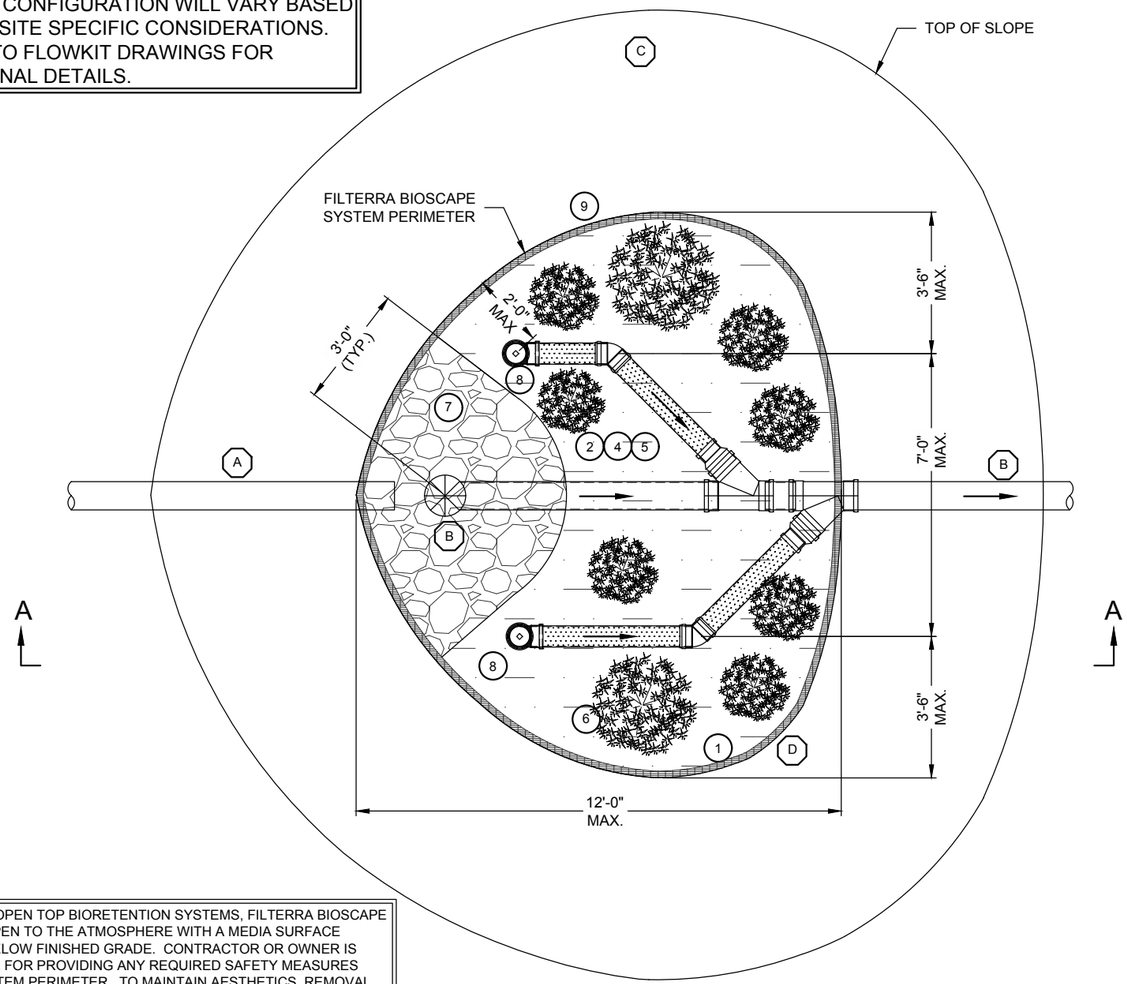
$$\frac{V_{BMP}}{t_{drain}} = Q_{pump}$$

$$Q_{pump} = \frac{ft^3}{hr} * \frac{1\ hr}{3600\ sec} * \frac{449\ gpm}{1\ \frac{ft^3}{sec}}$$

$$Q_{pump} = \frac{64{,}650\ ft^3}{24\ hr} * \frac{449}{3600}\ \frac{gpm}{\frac{ft^3}{hr}} = 336\ gpm$$

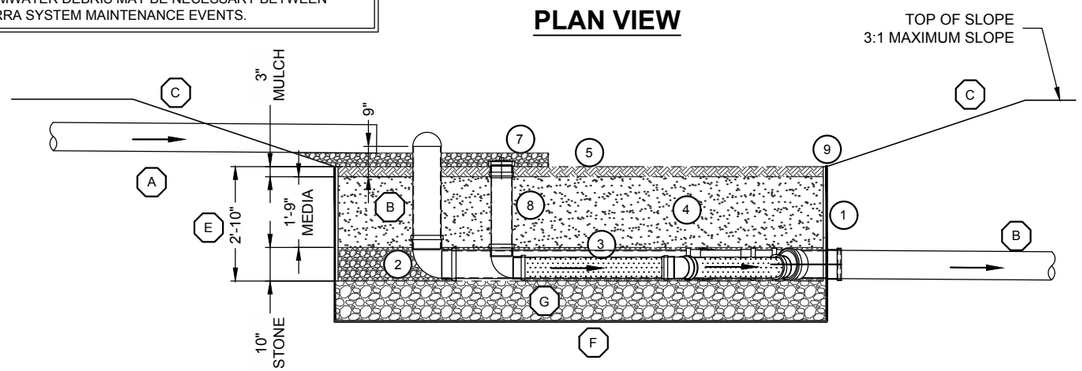
$$\boldsymbol{Q_{pump} = 340\ gpm}$$

THIS IS A SCHEMATIC LAYOUT ONLY. ACTUAL CONFIGURATION WILL VARY BASED ON THE SITE SPECIFIC CONSIDERATIONS. REFER TO FLOWKIT DRAWINGS FOR ADDITIONAL DETAILS.



AS WITH ALL OPEN TOP BIORETENTION SYSTEMS, FILTERRA BIOSCAPE SYSTEM IS OPEN TO THE ATMOSPHERE WITH A MEDIA SURFACE RECESSED BELOW FINISHED GRADE. CONTRACTOR OR OWNER IS RESPONSIBLE FOR PROVIDING ANY REQUIRED SAFETY MEASURES AROUND SYSTEM PERIMETER. TO MAINTAIN AESTHETICS, REMOVAL OF HEAVY STORMWATER DEBRIS MAY BE NECESSARY BETWEEN REGULAR FILTERRA SYSTEM MAINTENANCE EVENTS.

PLAN VIEW



SECTION A-A VIEW

BILL OF MATERIALS

COUNT	DESCRIPTION	INSTALLED BY
X	FILTERRA SURFACE AREA (SF)	CONTRACTOR
X	MULCH VOLUME (CY)	CONTRACTOR
XX	FILTERRA MEDIA VOLUME (CY)	CONTRACTOR
X	1/2" #4 ROUND AGGREGATE UNDERDRAIN STONE (CY)	CONTRACTOR
X	ENERGY DISSIPATION ROCK (CY)	CONTRACTOR
X	EROSION CONTROL (LF)	CONTRACTOR
X	FILTERRA FLOWKIT	CONTRACTOR

PLANTING SCHEDULE

*NOTE: PLANTS PROVIDED BY OTHERS

QUANTITY	FILTERRA BIOSCAPE SYSTEM PLANT PALETTE

GENERAL NOTES

1. CONTRACTOR SHALL CONTACT CONTECH TO COORDINATE DELIVERY AND SUPERVISION OF PLACEMENT OF FILTERRA BIOSCAPE SYSTEM COMPONENTS (ACTIVATION). CONTRACTOR SHALL COMPLETE ITEMS IN THE LIST OF CONTRACTOR INSTALLATION RESPONSIBILITIES LISTED ON THIS DETAIL BEFORE CONTECH'S REPRESENTATIVE ATTENDS AND SUPERVISES THE ACTIVATION OF THE BIOSCAPE SYSTEM.
2. PERFORM FILTERRA BIOSCAPE SYSTEM EXCAVATION ONLY AFTER ALL THE CONTRIBUTING DRAINAGE AREAS ARE PERMANENTLY STABILIZED. DO NOT CONSTRUCT FILTERRA BIOSCAPE SYSTEM IN AN AREA USED AS EROSION AND SEDIMENT CONTROL FACILITIES. DO NOT STOCKPILE MATERIALS NOR STORE EQUIPMENT IN THIS AREA.
3. USE METHODS OF EXCAVATION THAT MINIMIZE COMPACTION OF THE UNDERLYING SOIL UNLESS THE SYSTEM IS TO BE LINED.
4. CONTRACTOR SHALL COORDINATE WITH CONTECH BEFORE THE FILTERRA BIOSCAPE SYSTEM AREA IS EXCAVATED TO MINIMIZE TIME BETWEEN EXCAVATION AND DELIVERY AND ACTIVATION OF THE FILTERRA BIOSCAPE SYSTEM. ANY STANDING WATER THAT ACCUMULATES IN THE EXCAVATED AREA MUST BE REMOVED BY THE CONTRACTOR BEFORE CONTECH CAN PROVIDE ACTIVATION OF THE FILTERRA BIOSCAPE SYSTEM. ANY ADDITIONAL EXCAVATION WILL BE THE RESPONSIBILITY OF THE CONTRACTOR. EXCAVATION DIMENSIONS SHOULD BE PROVIDED TO CONTECH IN THE ACTIVATION REQUEST CHECKLIST.
5. CONTRACTOR SHALL PROVIDE ACCESS TO THE EXCAVATED AREA(S) FOR USE DURING THE ACTIVATION OF THE FILTERRA BIOSCAPE SYSTEM(S). ACCESS SHALL NOT PROHIBIT LIGHT DUTY EQUIPMENT THAT MAY BE USED TO INSTALL THE COMPONENTS (STONE, MEDIA, ETC). THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY RE-STABILIZATION THAT MAY BE REQUIRED AFTER THE FILTERRA BIOSCAPE SYSTEM ACTIVATION.
6. CONTECH AND/OR ITS REPRESENTATIVES MUST BE SCHEDULED TO BE ON SITE FOR THE LIST ENTITLED CONTRACTOR ACTIVATION RESPONSIBILITIES.

CONTRACTOR SITE PREPARATION RESPONSIBILITIES AS DENOTED BY (X) ON THIS DETAIL:

- (A.) CONTRACTOR SHALL INSTALL PIPE OR SWALE THAT CONVEYS INFLUENT FLOWS AS WELL AS ANY REQUIRED INLET AND OUTLET STRUCTURES.
- (B.) CONTRACTOR SHALL PROVIDE BYPASS PIPE AND RISER OR OTHER STRUCTURE AS SHOWN ON PLANS. THE BYPASS PIPE SHALL BE INSTALLED WITH WYE(S), OR OTHER PIPE FITTINGS, AND WITH REDUCER COUPLING(S) FOR CONNECTION OF UNDERDRAIN PIPE, PER PLANS. PIPES SHALL BE INSTALLED TO PROMOTE POSITIVE FLOW FROM THE FILTERRA BIOSCAPE SYSTEM.
- (C.) IF REQUIRED, CONTRACTOR TO PROVIDE SHOULDER ACCORDING TO DIMENSION AND SLOPE SHOWN ON PLANS OR AS DESIGNED BY ENGINEER OF RECORD. SLOPE FROM SHOULDER TO FILTERRA BIOSCAPE SYSTEM SURFACE AREA SHALL NOT EXCEED 3:1. SOD IS REQUIRED TO STABILIZE SIDE SLOPES OR ADJACENT GRADE.
- (D.) CONTRACTOR TO EXCAVATE MEDIA AREA CORRESPONDING TO THE SIZE OF THE FILTERRA BIOSCAPE SYSTEM SURFACE AREA AS SHOWN ON DETAIL AND ON PLAN SHEETS.
- (E.) CONTRACTOR SHALL EXCAVATE VERTICALLY FROM BOTTOM OF UNDERDRAIN STONE, OR DRAINAGE STONE, IF REQUIRED, TO ELEVATION OF MULCH AS SHOWN ON THIS DETAIL .
- (F.) CONTRACTOR TO PROVIDE AND INSTALL ANY GEOTEXTILE OR IMPERMEABLE LINER FOR BOTTOM OF THE FILTERRA BIOSCAPE SYSTEM IF REQUIRED PER THE PLANS.
- (G.) CONTRACTOR TO PROVIDE AND INSTALL ANY ADDITIONAL DRAINAGE STONE BELOW THE FILTERRA BIOSCAPE SYSTEM AS CALLED OUT ON THE PLANS.

CONTRACTOR ACTIVATION RESPONSIBILITIES AS DENOTED BY (#) ON THIS DETAIL:

1. PLACE GEOTEXTILE FABRIC ALONG THE PERIMETER OF THE FILTERRA BIOSCAPE SYSTEM EXCAVATION.
2. PLACE 10" OF UNDERDRAIN STONE - 2" UNDER THE PIPING, 6" AROUND THE PIPING AND 2" ABOVE THE PIPING USING LIGHT DUTY EQUIPMENT ONLY.
3. PLACE 6" UNDERDRAIN PIPING UNLESS OTHERWISE APPROVED BY CONTECH, ASSOCIATED PIPING AND FITTINGS/ELBOWS TO CONNECT TO THE PIPING/FITTING(S) THAT IS PROVIDED BY CONTRACTOR (SEE CONTRACTOR INSTALLATION RESPONSIBILITIES THIS DETAIL).
4. PLACE 21" FILTERRA MEDIA USING LIGHT DUTY EQUIPMENT ONLY. DO NOT COMPACT MEDIA.
5. PLACE 3" DOUBLE SHREDDED HARDWOOD MULCH OVER ENTIRE FILTERRA BIOSCAPE SYSTEM SURFACE AREA USING LIGHT DUTY EQUIPMENT ONLY. DO NOT COMPACT MULCH.
6. PROVIDE AND PLANT VEGETATION AS INDICATED IN TABLE ON THIS DETAIL OR ON SITE PLANS.
7. PLACE ENERGY DISSIPATION ROCK APRON AS DESIGNED AND INDICATED ON THIS DETAIL OR PER ENGINEER OF RECORD PLANS.
8. PLACE CLEANOUT ADAPTER, PLUG AND PIPING.
9. PLACE ADDITIONAL EROSION CONTROL AROUND FILTERRA BIOSCAPE SYSTEM (IF REQUIRED).

CONTECH ENGINEERED SOLUTIONS LLC
www.ContechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

FILTERRA BIOSCAPE™ SYSTEM STANDARD DETAIL

I:\COMMON\CAD\TREATMENT\54 FILTERRA\40 STANDARD DRAWINGS\FTBS - BIOSCAPE SYSTEM (BOXLESS)\DWG\FILTERRA BIOSCAPE SUPERVISED SYSTEM - STD DETAIL.DWG 5/21/2020 8:57 AM

WASHINGTON STATE DEPARTMENT OF ECOLOGY

June 2020

GENERAL USE LEVEL DESIGNATION FOR BASIC (TSS), ENHANCED, PHOSPHORUS & OIL TREATMENT

For

CONTECH Engineered Solutions Filterra®

Ecology's Decision:

Based on Contech's submissions, including the Final Technical Evaluation Reports, dated August 2019, March 2014, December 2009, and additional information provided to Ecology dated October 9, 2009, Ecology hereby issues the following use level designations:

1. A General Use Level Designation for Basic, Enhanced, Phosphorus, and Oil Treatment for the Filterra® system constructed with a minimum media thickness of 21 inches (1.75 feet), at the following water quality design hydraulic loading rates:

Treatment	Infiltration Rate (in/hr) for use in Sizing
Basic	175
Phosphorus	100
Oil	50
Enhanced	175

2. The Filterra is not appropriate for oil spill-control purposes.
3. Ecology approves Filterra systems for treatment at the hydraulic loading rates listed above, and sized based on the water quality design flow rate for an off-line system. Calculate the water quality design flow rates using the following procedures:

- Western Washington: for treatment installed upstream of detention or retention, the water quality design flow rate is the peak 15-minute flow rate as calculated using the latest version of the Western Washington Hydrology Model or other Ecology-approved continuous runoff model.
- Eastern Washington: For treatment installed upstream of detention or retention, the water quality design flow rate is the peak 15-minute flow rate as calculated using one of the three flow rate based methods described in Chapter 2.7.6 of the Stormwater Management Manual for Eastern Washington (SWMMEW) or local manual.
- Entire State: For treatment installed downstream of detention, the water quality design flow rate is the full 2-year release rate of the detention facility.

4. This General Use Level Designation has no expiration date, but Ecology may revoke or amend the designation, and is subject to the conditions specified below.

Ecology's Conditions of Use:

Filterra systems shall comply with these conditions shall comply with the following conditions:

1. Design, assemble, install, operate, and maintain the Filterra systems in accordance with applicable Contech Filterra manuals and this Ecology Decision.
2. The minimum size filter surface-area for use in Washington is determined by using the design water quality flow rate (as determined in this Ecology Decision, Item 3, above) and the Infiltration Rate from the table above (use the lowest applicable Infiltration Rate depending on the level of treatment required). Calculate the required area by dividing the water quality design flow rate (cu-ft/sec) by the Infiltration Rate (converted to ft/sec) to obtain required surface area (sq-ft) of the Filterra unit.
3. Each site plan must undergo Contech Filterra review before Ecology can approve the unit for site installation. This will ensure that design parameters including site grading and slope are appropriate for use of a Filterra unit.
4. Filterra media shall conform to the specifications submitted to and approved by Ecology and shall be sourced from Contech Engineered Solutions, LLC with no substitutions.
5. Maintenance includes removing trash, degraded mulch, and accumulated debris from the filter surface and replacing the mulch layer. Use inspections to determine the site-specific maintenance schedules and requirements. Follow maintenance procedures given in the most recent version of the Filterra Operation and Maintenance Manual.
6. Maintenance: The required maintenance interval for stormwater treatment devices is often dependent upon the degree of pollutant loading from a particular drainage basin. Therefore, Ecology does not endorse or recommend a "one size fits all" maintenance cycle for a particular model/size of manufactured treatment device.
    - Contech designs Filterra systems for a target maintenance interval of 6 months in the Pacific Northwest. Maintenance includes removing and replacing the mulch layer above the media along with accumulated sediment, trash, and captured organic materials therein, evaluating plant health, and pruning the plant if deemed necessary.
    - Conduct maintenance following manufacturer's guidelines.
7. Filterra systems come in standard sizes.
8. Install the Filterra in such a manner that flows exceeding the maximum Filterra operating rate are conveyed around the Filterra mulch and media and will not resuspend captured sediment.
9. Discharges from the Filterra units shall not cause or contribute to water quality standards violations in receiving waters.

Approved Alternate Configurations

Filterra Internal Bypass - Pipe (FTIB-P)

1. The Filterra® Internal Bypass – Pipe allows for piped-in flow from area drains, grated inlets, trench drains, and/or roof drains. Design capture flows and peak flows enter the structure through an internal slotted pipe. Filterra® inverted the slotted pipe to allow design flows to drop through to a series of splash plates that then disperse the design flows over the top surface of the Filterra® planter area. Higher flows continue to bypass the slotted pipe and convey out the structure.
2. To select a FTIB-P unit, the designer must determine the size of the standard unit using the sizing guidance described above.

Filterra Internal Bypass – Curb (FTIB-C)

1. The Filterra® Internal Bypass –Curb model (FTIB-C) incorporates a curb inlet, biofiltration treatment chamber, and internal high flow bypass in one single structure. Filterra® designed the FTIB-C model for use in a "Sag" or "Sump" condition and will accept flows from both directions along a gutter line. An internal flume tray weir component directs treatment flows entering the unit through the curb inlet to the biofiltration treatment chamber. Flows in excess of the water quality treatment flow rise above the flume tray weir and discharge through a standpipe orifice; providing bypass of untreated peak flows. Americast manufactures the FTIB-C model in a variety of sizes and configurations and you may use the unit on a continuous grade when a single structure providing both treatment and high flow bypass is preferred. The FTIB-C model can also incorporate a separate junction box chamber to allow larger diameter discharge pipe connections to the structure.
2. To select a FTIB-C unit, the designer must determine the size of the standard unit using the sizing guidance described above.

Filterra® Shallow

1. The Filterra Shallow provides additional flexibility for design engineers and designers in situations where various elevation constraints prevent application of a standard Filterra configuration. Engineers can design this system up to six inches shallower than any of the previous Filterra unit configurations noted above.
2. Ecology requires that the Filterra Shallow provide a media contact time equivalent to that of the standard unit. This means that with a smaller depth of media, the surface area must increase.
3. To select a Filterra Shallow System unit, the designer must first identify the size of the standard unit using the modeling guidance described above.
4. Once the size of the standard Filterra unit is established using the sizing technique described above, use information from the following table to select the appropriate size Filterra Shallow System unit.

Shallow Unit Basic, Enhanced, Phosphorus, and Oil Treatment Sizing

Standard Depth	Equivalent Shallow Depth
4x4	4x6 or 6x4
4x6 or 6x4	6x6
4x8 or 8x4	6x8 or 8x6
6x6	6x10 or 10x6
6x8 or 8x6	6x12 or 12x6
6x10 or 10x6	13x7

Notes:
1. Shallow Depth Boxes are less than the standard depth of 3.5 feet but no less than 3.0 feet deep (TC to INV).

Applicant: Contech Engineered Solutions, LLC.

Applicant's Address: 11815 NE Glenn Widing Drive
Portland, OR 97220

Application Documents:

- State of Washington Department of Ecology Application for Conditional Use Designation, Americast (September 2006)
- Quality Assurance Project Plan Filterra® Bioretention Filtration System Performance Monitoring, Americast (April 2008)
- Quality Assurance Project Plan Addendum Filterra® Bioretention Filtration System Performance Monitoring, Americast (June 2008)
- Draft Technical Evaluation Report Filterra® Bioretention Filtration System Performance Monitoring, Americast (August 2009)
- Final Technical Evaluation Report Filterra® Bioretention Filtration System Performance Monitoring, Americast (December 2009)
- Technical Evaluation Report Appendices Filterra® Bioretention Filtration System Performance Monitoring, Americast, (August 2009)
- Memorandum to Department of Ecology Dated October 9, 2009 from Americast, Inc. and Herrera Environmental Consultants
- Quality Assurance Project Plan Filterra® Bioretention System Phosphorus treatment and Supplemental Basic and Enhanced Treatment Performance Monitoring, Americast (November 2011)
- Filterra® letter August 24, 2012 regarding sizing for the Filterra® Shallow System.
- University of Virginia Engineering Department Memo by Joanna Crowe Curran, Ph. D dated March 16, 2013 concerning capacity analysis of Filterra® internal weir inlet tray.
- Terraphase Engineering letter to Jodi Mills, P.E. dated April 2, 2013 regarding Terraflume Hydraulic Test, Filterra® Bioretention System and attachments.
- Technical Evaluation Report, Filterra® System Phosphorus Treatment and Supplemental Basic Treatment Performance Monitoring. March 27th, 2014.
- State of Washington Department of Ecology Application for Conditional Use Level Designation, Contech Engineered Solutions (May 2015)

- Quality Assurance Project Plan Filterra® Bioretention System, Contech Engineered Solutions (May 2015)
- Filterra Bioretention System Armco Avenue General Use Level Designation Technical Evaluation Report, Contech Engineered Solutions (August 2019)

Applicant's Use Level Request:

General Level Use Designation for Basic (175 in/hr), Enhanced (175 in/hr), Phosphorus (100 in/hr), and Oil Treatment (50 in/hr).

Applicant's Performance Claims:

Field-testing and laboratory testing show that the Filterra® unit is promising as a stormwater treatment best management practice and can meet Ecology's performance goals for basic, enhanced, phosphorus, and oil treatment.

Findings of Fact:

Field Testing 2015-2019

1. Contech completed field testing of a 4 ft. x 4 ft. Filterra® unit at one site in Hillsboro, Oregon from September 2015 to July 2019. Throughout the monitoring period a total of 24 individual storm events were sampled, of which 23 qualified for TAPE sampling criteria.
2. Contech encountered several unanticipated events and challenges that prevented them from collecting continuous flow and rainfall data. An analysis of the flow data from the sampled events, including both the qualifying and non-qualifying events, demonstrated the system treated over 99 % of the influent flows. Peak flows during these events ranged from 25 % to 250 % of the design flow rate of 29 gallons per minute.
3. Of the 23 TAPE qualified sample events, 13 met requirements for TSS analysis. Influent concentrations ranged from 20.8 mg/L to 83 mg/L, with a mean concentration of 46.3 mg/L. The UCL95 mean effluent concentration was 15.9 mg/L, meeting the 20 mg/L performance goal for Basic Treatment.
4. All 23 TAPE qualified sample events met requirements for dissolved zinc analysis. Influent concentrations range from 0.0384 mg/L to 0.2680 mg/L, with a mean concentration of 0.0807 mg/L. The LCL 95 mean percent removal was 62.9 %, meeting the 60 % performance goal for Enhanced Treatment.
5. Thirteen of the 23 TAPE qualified sample events met requirements for dissolved copper analysis. Influent concentrations ranged from 0.00543 mg/L to 0.01660 mg/L, with a mean concentration of 0.0103 mg/L. The LCL 95 mean percent removal was 41.2 %, meeting the 30 % performance goal for Enhanced Treatment.
6. Total zinc concentrations were analyzed for all 24 sample events. Influent EMCs for total zinc ranged from 0.048 mg/L to 5.290 mg/L with a median of 0.162 mg/L. Corresponding effluent EMCs for total zinc ranged from 0.015 mg/L to 0.067 mg/L with a median of

0.029 mg/L. Total event loadings for the study for total zinc were 316.85 g at the influent and 12.92 g at the effluent sampling location, resulting in a summation of loads removal efficiency of 95.9 %.

7. Total copper concentrations were analyzed for all 24 sample events. Influent EMCs for total copper ranged from 0.003 mg/L to 35.600 mg/L with a median value of 0.043 mg/L. Corresponding effluent EMCs for total copper ranged from 0.002 mg/L to 0.015 mg/L with a median of 0.004 mg/L. Total event loadings for total copper for the study were 1,810.06 g at the influent and 1.90 g at the effluent sampling location, resulting in a summation of loads removal efficiency of 99.9 %.

Field Testing 2013

1. Filterra completed field-testing of a 6.5 ft x 4 ft. unit at one site in Bellingham, Washington. Continuous flow and rainfall data collected from January 1, 2013 through July 23, 2013 indicated that 59 storm events occurred. Water quality data was obtained from 22 storm events. Not all the sampled storms produced information that met TAPE criteria for storm and/or water quality data.
2. The system treated 98.9 % of the total 8-month runoff volume during the testing period. Consequently, the system achieved the goal of treating 91 % of the volume from the site. Stormwater runoff bypassed Filterra treatment during four of the 59 storm events.
3. Of the 22 sampled events, 18 qualified for TSS analysis (influent TSS concentrations ranged from 25 to 138 mg/L). The data were segregated into sample pairs with influent concentration greater than and less than 100 mg/L. The UCL95 mean effluent concentration for the data with influent less than 100 mg/L was 5.2 mg/L, below the 20-mg/L threshold. Although the TAPE guidelines do not require an evaluation of TSS removal efficiency for influent concentrations below 100 mg/L, the mean TSS removal for these samples was 90.1 %. Average removal of influent TSS concentrations greater than 100 mg/L (three events) was 85 %. In addition, the system consistently exhibited TSS removal greater than 80 % at flow rates equivalent to a 100 in/hr infiltration rate and was observed at 150 in/hr.
4. Ten of the 22 sampled events qualified for TP analysis. Americast augmented the dataset using two sample pairs from previous monitoring at the site. Influent TP concentrations ranged from 0.11 to 0.52 mg/L. The mean TP removal for these twelve events was 72.6 %. The LCL95 mean percent removal was 66.0, well above the TAPE requirement of 50 %. Treatment above 50 % was evident at 100 in/hr infiltration rate and as high as 150 in/hr. Consequently, the Filterra test system met the TAPE Phosphorus Treatment goal at 100 in/hr. Influent ortho-P concentrations ranged from 0.005 to 0.012 mg/L; effluent ortho-P concentrations ranged from 0.005 to 0.013 mg/L. The reporting limit/resolution for the ortho-P test method is 0.01 mg/L, therefore the influent and effluent ortho-P concentrations were both at and near non-detect concentrations.

Field Testing 2008-2009

1. Filterra completed field-testing at two sites at the Port of Tacoma. Continuous flow and rainfall data collected during the 2008-2009 monitoring period indicated that 89 storm events occurred. The monitoring obtained water quality data from 27 storm events. Not all the sampled storms produced information that met TAPE criteria for storm and/or water quality data.
2. During the testing at the Port of Tacoma, 98.96 to 99.89 % of the annual influent runoff volume passed through the POT1 and POT2 test systems respectively. Stormwater runoff bypassed the POT1 test system during nine storm events and bypassed the POT2 test system during one storm event. Bypass volumes ranged from 0.13 % to 15.3% of the influent storm volume. Both test systems achieved the 91 % water quality treatment-goal over the 1-year monitoring period.
3. Consultants observed infiltration rates as high as 133 in/hr during the various storms. Filterra did not provide any paired data that identified percent removal of TSS, metals, oil, or phosphorus at an instantaneous observed flow rate.
4. The maximum storm average hydraulic loading rate associated with water quality data is <40 in/hr, with the majority of flow rates < 25 in/hr. The average instantaneous hydraulic loading rate ranged from 8.6 to 53 in/hr.
5. The field data showed a removal rate greater than 80 % for TSS with an influent concentration greater than 20 mg/L at an average instantaneous hydraulic loading rate up to 53 in/hr (average influent concentration of 28.8 mg/L, average effluent concentration of 4.3 mg/L).
6. The field data showed a removal rate generally greater than 54 % for dissolved zinc at an average instantaneous hydraulic loading rate up to 60 in/hr and an average influent concentration of 0.266 mg/L (average effluent concentration of 0.115 mg/L).
7. The field data showed a removal rate generally greater than 40 % for dissolved copper at an average instantaneous hydraulic loading rate up to 35 in/hr and an average influent concentration of 0.0070 mg/L (average effluent concentration of 0.0036 mg/L).
8. The field data showed an average removal rate of 93 % for total petroleum hydrocarbon (TPH) at an average instantaneous hydraulic loading rate up to 53 in/hr and an average influent concentration of 52 mg/L (average effluent concentration of 2.3 mg/L). The data also shows achievement of less than 15 mg/L TPH for grab samples. Filterra provided limited visible sheen data due to access limitations at the outlet monitoring location.
9. The field data showed low percentage removals of total phosphorus at all storm flows at an average influent concentration of 0.189 mg/L (average effluent concentration of 0.171 mg/L). We may relate the relatively poor treatment performance of the Filterra system at this location to influent characteristics for total phosphorus that are unique to the Port of Tacoma site. It appears that the Filterra system will not meet the 50 % removal performance goal when the majority of phosphorus in the runoff is expected to be in the dissolved form.

Laboratory Testing

1. Filterra performed laboratory testing on a scaled down version of the Filterra unit. The lab data showed an average removal from 83-91 % for TSS with influents ranging from 21 to 320 mg/L, 82-84 % for total copper with influents ranging from 0.94 to 2.3 mg/L, and 50-61 % for orthophosphate with influents ranging from 2.46 to 14.37 mg/L.
2. Filterra conducted permeability tests on the soil media.
3. Lab scale testing using Sil-Co-Sil 106 showed removals ranging from 70.1 % to 95.5 % with a median removal of 90.7 %, for influent concentrations ranging from 8.3 to 260 mg/L. Filterra ran these laboratory tests at an infiltration rate of 50 in/hr.
4. Supplemental lab testing conducted in September 2009 using Sil-Co-Sil 106 showed an average removal of 90.6 %. These laboratory tests were run at infiltration rates ranging from 25 to 150 in/hr for influent concentrations ranging from 41.6 to 252.5 mg/L. Regression analysis results indicate that the Filterra system's TSS removal performance is independent of influent concentration in the concentration rage evaluated at hydraulic loading rates of up to 150 in/hr.

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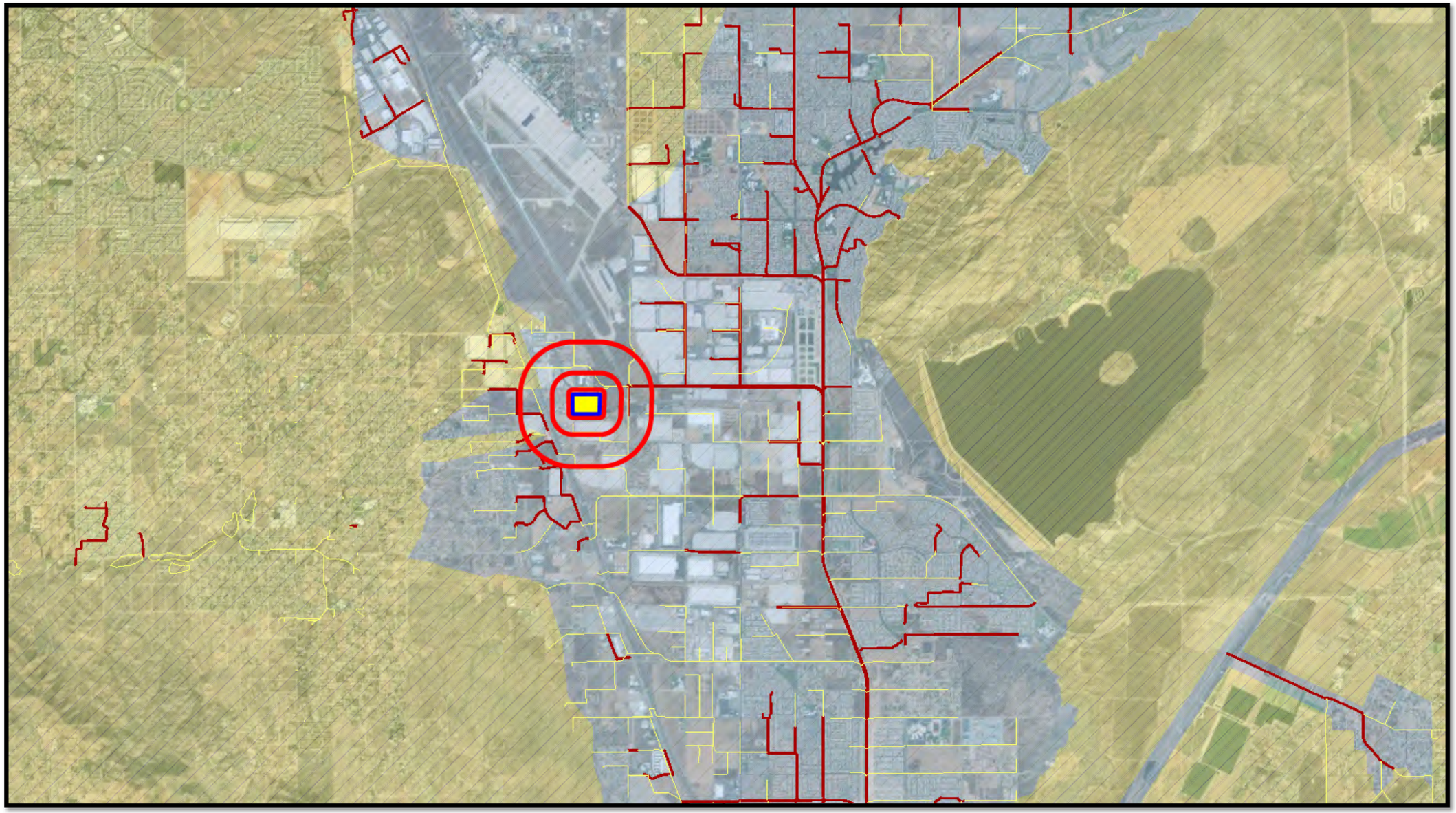
Date	**Revision**
December 2009	GULD for Basic, Enhanced, and Oil granted, CULD for Phosphorus
September 2011	Extended CULD for Phosphorus Treatment
September 2012	Revised design storm discussion, added Shallow System.
January 2013	Revised format to match Ecology standards, changed Filterra contact information
February 2013	Added FTIB-P system
March 2013	Added FTIB-C system
April 2013	Modified requirements for identifying appropriate size of unit

June 2013	Modified description of FTIB-C alternate configuration
March 2014	GULD awarded for Phosphorus Treatment. GULD updated for a higher flow-rate for Basic Treatment.
June 2014	Revised sizing calculation methods
March 2015	Revised Contact Information
June 2015	CULD for Basic and Enhanced at 100 in/hr infiltration rate
September 2019	GULD for Basic and Enhanced at 175 in/hr infiltration rate
February 2020	Revised sizing language to note sizing based on off-line calculations
June 2020	Added Phosphorus to Filterra Shallow sizing table

Appendix 7: Hydromodification

Supporting Detail Relating to Hydrologic Conditions of Concern

Hydromodification Exempt Area per Riverside County WAP Approved April 20, 2017



Appendix 8: Source Control

Pollutant Sources/Source Control Checklist

*To be included in FWQMP

Appendix 9: O&M

Operation and Maintenance Plan and Documentation of Finance, Maintenance and Recording Mechanisms

*To be included in FWQMP

Appendix 10: Educational Materials

BMP Fact Sheets, Maintenance Guidelines and Other End-User BMP Information

*To be included in FWQMP